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OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 12/11/2008

State of Oregon
Department of Environmental Quality

Oregon Environmental Quality Commission Meeting

December 11 and 12, 2008

Department of Environmental Quality Laboratory
TechPointe Commons
Building B
3150 NW 229th Ave
Hillsboro, Oregon

The DEQ Lab is a secure facility, and all visitors will be required to show photo identification for entry.
Please bring the proper ID and plan to arrive at least 15 minutes before an item of interest to ensure timely entry.

Thursday, December 11—Regular meeting begins at 8:30 am

A. Preliminary Commission Business: Adoption of Minutes of the October 23, 2008 Regular Meeting
The Environmental Quality Commission will review, amend if necessary, and approve draft minutes of the October 23, 2008, regular EQC meeting.

B. Informational Item: Update on the Status of the Umatilla Chemical Agent Disposal Facility (UMCDF)
Joni Hammond, Department of Environmental Quality Deputy Director, and Rich Duval, Administrator of DEQ's Chemical Demilitarization Program, will give a brief update on the status of the agent disposal program at the Umatilla Chemical Agent Disposal Facility.
Joni Hammond and Rich Duval, Department of Environmental Quality

C. Informational Item: Director's Dialogue
Dick Pedersen, DEQ Director, will discuss current events and issues involving DEQ.

D. Action Item: Tax Credit Considerations
The Pollution Control Facilities Tax Credit regulations direct the EQC to "certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof if the Commission finds that the facility qualifies as a pollution control facility". EQC certification entitles an Oregon taxpayer to subtract up to 35 percent of a facility's cost from its Oregon tax liability.
Maggie Vandehey, Department of Environmental Quality

E. Informational Item: Beneficial Use
Information about an upcoming rulemaking regarding the classification of certain solid wastes as beneficial use materials to promote reuse and divert material from landfills. Beneficial use typically involves using an industrial waste in a manufacturing process to make a product, to substitute for fill materials or to amend soils. Adopting a beneficial use program by rule would provide a transparent and consistent process for reviewing beneficial uses

based on specified criteria and make it easier for manufacturers to reuse, rather than dispose of, certain materials and reduce the need for virgin material.
Wendy Wiles, Loretta Pickerell and Tom Roick, Department of Environmental Quality

F. Recognition of Activities from Northwest Region Office
Nina Deconcini, Department of Environmental Quality
Staff from the DEQ Northwest Region office will recognize two area businesses for their work and commitment to Oregon's environment.

G. Public Forum
At approximately 11:20 a.m., the EQC will provide members of the public an opportunity to speak to Commission members on environmental issues. Individuals wishing to speak to the EQC must sign a request form at the meeting and limit presentations to five minutes. The EQC may discontinue public forum after a reasonable time if a large number of speakers wish to appear. In accordance with ORS 183.335(13), no comments may be presented on rule adoption items for which public comment periods have closed.

Working Lunch
The EQC will meet in executive session from approximately 12:00 p.m. to 1:00 p.m. to consult with counsel concerning legal rights and duties regarding current or potential litigation against the DEQ. Only representatives of the media may attend and media representatives may not report on any deliberations during the session. [1]

H. Site Visit: DEQ Lab
Greg Pettit, DEQ's Laboratory and Environmental Assessment Division Administrator, will give a brief overview of the work done at the Lab and, with Lab staff, host a site visit for the Commissioners and DEQ staff.
Greg Pettit and LEAD Staff

I. Informational Item: PM 2.5
DEQ staff will inform the Commissioners about an upcoming rulemaking regarding fine particulate matter, PM 2.5, and its impacts on human health. The EPA recently passed new PM 2.5 standards under the Clean Air Act which will require Oregon to adopt the new standards in spring 2009.
Andy Ginsburg and Rachel Sakata, Department of Environmental Quality

End of first day

Friday, December 12—Regular meeting begins at 8:30 am

K. Action item: 2009-2010 Rulemaking Agenda
Larry McAllister, the DEQ rule coordinator, will present the 2009-2010 rulemaking agenda for Commission review and discussion. DEQ prepares and updates biennial rulemaking plans on an annual basis, and submits the plans to the EQC so that the Commissioners can identify rulemaking efforts that will

benefit from additional EQC involvement and guidance. The rulemaking agenda for 2009-2010 includes 34 rules, two-thirds of which are new rulemakings.
Larry McAllister and Program Administrators, Department of Environmental Quality

L. Action Item: NSPS/NESHAP Adoption
Air Quality Division staff will explain the amendments and updates to a series of air quality rules and permits and explain how the changes will protect Oregon's environment. The proposed rules are important to protect human health, ensure that Oregon maintains delegation of federal programs that regulate hazardous air pollutants and new sources, fill gaps created by court decisions about some of the federal rules and improve Oregon's implementation of these programs. A key provision in these rules exceeds federal regulations for reducing benzene exposure from gasoline dispensing facilities.
Andy Ginsburg, Jerry Ebersole and Sarah Armitage, Department of Environmental Quality

M. Informational Item: Statewide Water Roundtables Presentation
Michael Campana, Director of the Institute for Water/Watersheds at Oregon State University, will present the outcomes of a series of roundtable events held statewide in fall 2008 dealing with the issue of Oregon's water resources.
Michael Campana, Oregon State University

N. Informational Item: Budget and Legislative Update
Greg Aldrich, DEQ's Government Relations Manager, will present an update on the current biennium's budget and legislative as well as give information on the upcoming Legislative session and biennium.
Greg Aldrich, Department of Environmental Quality

O. Commissioner Reports
The Commissioners will be given time to announce and discuss any relevant matters not listed on this agenda or otherwise noted herein.

Adjourn

[1] This executive session will be held pursuant to ORS 192.660(2)(f), (h).

Future Environmental Quality Commission meeting dates include:

February 26 – 27, 2009
April 23 – 24, 2009
June 18 - 19, 2009
August 20 – 21, 2009
October 22 - 23, 2009
December 10 – 11, 2009
(Note: Locations for 2009 meetings have not yet been determined.)

Agenda Notes

Staff Reports: Staff reports for each item on this agenda can be viewed and printed from DEQ's Web site at http://www.deq.state.or.us/about/eqc/eqc.htm. To request a particular staff report be sent to you in the mail, contact the EQC Assistant, Department of Environmental Quality, Director's Office, 811 SW Sixth Avenue, Portland, Oregon 97204; telephone 503-229-5301, toll-free 1-800-452-4011 extension 5301, or 503-229-6993 (TTY). Please specify the agenda item letter when requesting reports. If special physical, language or other accommodations are needed for this meeting, please advise the EQC Assistant as soon as possible, but at least 48 hours in advance of the meeting.

Public Forum: The Commission will provide time in the meeting during the morning of Thursday, December 11, for members of the public to speak to the Commission. Individuals wishing to speak to the Commission must sign a request form at the meeting and limit presentations to five minutes. The Commission may discontinue the public forum after a reasonable time if a large number of speakers wish to appear. In accordance with ORS 183.335(13), no comments may be presented on Rule Adoption items for which public comment periods have closed.

Note: Because of the uncertain length of time needed for each agenda item, the Commission may hear any item at any time during the meeting. If a specific time is indicated for an agenda item, an effort will be made to consider that item as close to that time as possible. However, scheduled times may be modified if participants agree. Those wishing to hear discussion of an item should arrive at the beginning of the meeting to avoid missing the item.

The Environmental Quality Commission is a five-member, all volunteer, citizen panel appointed by the governor for four-year terms to serve as DEQ's policy and rule-making board. Members are eligible for reappointment but may not serve more than two consecutive terms.

Bill Blosser, Chairman
Bill Blosser is owner of William Blosser Consulting. He is employed by, and has held several positions with CH2M Hill in Portland. Bill served as Director of the Oregon Department of Land Conservation and Development from 2001-2002 and was formerly president of Sokol Blosser Winery in Dundee, Oregon. Bill has served on and chaired numerous commissions and task forces, including terms as chair of the Water Resources Commission, chair of the Land Conservation and Development Commission and chair of the Policy Advisory Committee on Water Quality to the EQC. Bill has a Bachelor of Arts degree in history and humanities from Stanford University and a master's degree in regional planning from the University of North Carolina, Chapel Hill. Commissioner Blosser was appointed to the EQC in January 2006 and lives in Portland.

Ken Williamson, Vice Chairman
Ken Williamson is head of the School of Chemical, Biological and Environmental Engineering at Oregon State University in Corvallis. He received his B.S. and M.S. at Oregon State University and his Ph.D. at Stanford University. Commissioner Williamson was appointed to the EQC in February 2004 and reappointed in May, 2007. He lives in Portland. He represents the EQC on the Oregon Watershed Enhancement Board (OWEB).

Judy Uherbelau, Commissioner
Judy Uherbelau is a graduate of Ball State University with a B.S. in Economics/Political Science. She received a J.D. from UCLA School of Law and recently closed her law practice with Thomas C. Howser, PC in Ashland. Judy served in the Peace Corps and the Oregon House of Representatives as well as numerous boards and commissions. Commissioner Uherbelau was appointed to the EQC in February 2005 and reappointed in June 2008. She lives in Ashland.

Donalda Dodson, Commissioner
Donalda Dodson is currently Interim Executive Director of the Oregon Child Development Coalition. Previously, she served as Administrator of the Department of Human Services Office of Family Health and as Manager of the Maternal/Child Health Program at the Marion County Health Department. Donalda has a Bachelor of Science degree in nursing and a master's degree in public health. She has chaired or served on nearly a dozen public health committees and task forces and expresses a strong interest in bringing environmental issues into the public health arena. Commissioner Dodson was appointed to the EQC in August of 2005 and reappointed in July of 2007. She resides in Salem.

Jane O'Keeffe, Commissioner
Jane O'Keeffe has been an operating partner in the O'Keeffe Family Ranch, a fourth-generation cattle operation in Adel, near Lakeview, for more than 25 years and has served as partner in the Campbell Crossing Ranch in Kimberly since 2007. She has served as a member and co-chair of the Oregon Watershed Enhancement Board and has been active in other local natural resource boards involving forest lands and sustainability. Her public service also includes work as consultant to the National Forest Counties and Schools Coalition and seven years as a Lake County commissioner. Jane has a bachelor's degree in agriculture and resources economics from Oregon State University. Commissioner O'Keeffe was appointed to the EQC in June 2008. She is a native of northeast Oregon and resides in Adel.

Dick Pedersen, Director
Department of Environmental Quality
811 SW Sixth Avenue, Portland, OR 97204-1390
Telephone: (503) 229-5696 Toll Free in Oregon: (800) 452-4011
TTY: (503) 229-6993 Fax: (503) 229-6124
E-mail: deq.info@deq.state.or.us

Stephanie Clark, Assistant to the Commission
Telephone: (503) 229-5301

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Approved ___
Approved with Corrections ___

Minutes are not final until approved by Commission.

Oregon Environmental Quality Commission Meeting
Minutes of the Three Hundred and Forty-sixth Meeting

October 23, 2008

The Environmental Quality Commission held a public meeting beginning at 8:30 a.m. on October 23, 2008, at the Department of Environmental Quality headquarters building, 811 SW 6th Ave., Room EQC-A, Portland, Oregon

The following members of the Environmental Quality Commission were present:

Bill Blosser, Chairman
Kenneth Williamson, Vice Chairman
Donalda Dodson, Member
Judy Uherbelau, Member
Jane O'Keeffe, Member

A. Preliminary Commission Business: Adoption of Minutes of the August 21-22, 2008 Regular Meeting in Hermiston, Oregon
The EQC amended the August 21-22, 2008, minutes to correct a typographical error and then adopted the minutes as corrected.
Motion: Commissioner Williamson moved to adopt the minutes as corrected
Second: Commissioner Dodson
Passed unanimously

B. Informational Item: Update on the Status of the Umatilla Chemical Agent Disposal Facility (UMCDF)
Joni Hammond and Rich Duval, Department of Environmental Quality; Doug Harrick, UMCDF
Joni Hammond and Rich Duval gave an update on the status on the disposal campaign for VX agent, noting that the campaign began September 25, 2008, is more than halfway complete, and will be completed by December, 2008. Mr. Duval also said the UMCDF will begin a mustard agent campaign in spring 2009. Mr. Duval highlighted recent events at other disposal facilities, including the closure of the Newport, Indiana facility following its decommissioning ceremony on October 25, 2008.

Commissioner Uherbelau asked where the materials from Indiana would be sent and if UMCDF ever shipped materials. Mr. Duval answered that the materials from Indiana

would be sent to Texas and that UMCDF does not ship anything containing an agent, although some non-agent materials are sent to an incinerator in Utah.

Mr. Duval explained that 94 percent of the total munitions at UMCDF had been disposed, representing 35 percent of the stockpile by weight.

Doug Harrick showed the commission a film of the mine processing at UMCDF. Commissioner Dodson asked what is done with the agent once a mine had been processed, and Mr. Harrick explained that the agent is collected in a tank and sent to a liquid incinerator, where it is burned separately from the other mine-related materials sent to a different incinerator.

Chair Blosser thanked the presenters for their update, and asked to see the process for mustard agent at the next meeting.

C. Rule Adoption Item: Greenhouse Gas Reporting
Andy Ginsburg, Uri Papish and Brandy Albertson, Department of Environmental Quality
This proposed rule would collect greenhouse gas emissions data from a variety of sources in two phases starting in 2010 in order to track emissions and improve air quality.

Brandy Albertson, DEQ emission inventory analyst, explained the two-phased approach. In the first phase of the program, sources with an existing Title V or air contaminant discharge permit and having emissions over the threshold of 2500 metric tons of CO_2 equivalent would be required to report their greenhouse gas emissions starting in 2010 based on 2009 emissions data. The second phase would require reporting from other specified non-air permitted sources with emissions over 2500 metric tons of CO_2 equivalent starting in 2011, using 2010 emissions data. The reasoning for the phased approach is to allow time for reporting protocols to be developed for all sources, many of which are not currently subject to reporting and may lack tools and knowledge of how to track greenhouse gas emissions.

Ms. Albertson further explained the reporting process, and that only direct emissions associated with fuel combustion and industrial processes would be subject to reporting, as indirect emissions lack protocol and reporting mechanisms at this time. Sources will submit greenhouse gas emissions data annually by March 15 of the following year, starting in 2010 or 2011 as applicable, using a DEQ-created form.

Commissioners Blosser and Uherbelau asked about the EQC's regulatory authority for collecting emissions data, to which Andy Ginsburg, DEQ air quality administrator, replied that DEQ would begin in the sectors in which the EQC has clear regulatory authority and then expand to other sectors pending legislative decisions in the 2009 session.

Commissioner Williamson noted that Oregon represents one-half of a percent of the total U.S. emissions, and the sector-based approach to data reporting is very good in terms of public policy. He also suggested that DEQ move forward quickly on landfills inventory

data to determine exactly where they are, and how much greenhouse gas they are emitting, for later carbon trading data.

DEQ staff members have planned training and informational workshops starting in November 2008 for the regulated community in order to explain proposed data collection and reporting strategies, especially for those sources that have not previously reported emissions to DEQ.

Commissioner Uherbelau expressed concern over what protocols would be used for data collection and reporting, especially for those sources not currently reporting to DEQ. air quality staff and Paul Logan, Department of Justice, responded that the proposed rule would allow DEQ staff to defer reporting requirements for a year, with the option to defer further, if there are no consistent and adequate reporting protocols available. This gives DEQ flexibility to exempt certain sources and is beneficial for the sources to react and comply with reporting requirements.

Director Pedersen thanked everyone who has worked on the greenhouse gas emissions reporting protocol and rules, and promised to communicate to the governor the seriousness with which this issue has been considered.

Larry Knudsen, EQC legal counsel, noted that the EQC should use the corrected pages for Attachment A2 when considering a motion for this item, as the version included with the commissioners' meeting packets did not show language deleted from the initial proposed rules that DEQ sent out for public comment.

Motion: Commissioner Williamson moved that the EQC adopt the proposed greenhouse gas rules as proposed by DEQ staff in the corrected version of Attachment A2.
Second: Commissioner O'Keeffe
Passed unanimously

D. Informational Item: Director's Dialogue
Dick Pedersen, DEQ Director
Director Pederson spoke on several of the DEQ's projects and ongoing work. Specific topics included: product stewardship, upgrades to the DEQ web presence; a pilot project for waste water treatment from floating homes in Astoria; the need for a new waste water treatment plant in Netarts and the public process; infrastructure and cost implications for many small communities in Oregon; recycling of electronics through the new e-waste program launching January 1, 2009; global warming projects; liquefied natural gas terminal projects proposed for Bradwood Landing; Jordan Cove and Astoria; recycling rates and how to improve them; and the proposed DEQ budget for the 2009-2011 Legislative session.

E. Action Item: Request for dismissal of contested case No. AQ/AB-WR-06-264, regarding Keith Michael Smith
Jane Hickman and Bryan Smith, Department of Environmental Quality

Larry Knudsen, DEQ legal counsel, polled the Commissioner to confirm there were no ex-party communications regarding this case and gave a brief review of the case history, judge's order and process to date. DEQ requested that the Commissioners dismiss the contested case based on no filing of exceptions, briefs or request for an extension within the given time.

Moved: Commissioner Uherbelau moved to dismiss the petition for review filed by Keith Michael Smith in contested case No. AQ/AB-WR-06-264
Second: Commissioner Dodson
Passed unanimously

F. Public Forum
Kate McCutcheon, Blue Heron Paper Co, Oregon City: Blue Heron Paper recycles five to six tons of paper a day. The facility is a worker-owned mill with 250 community-engaged staff. Ms. McCutcheon expressed concerns over items C, G and K as they relate to clean air and clean water permits and the ability of Blue Heron Paper Co. to continue operations under new standards that are burdensome and not science-based. Ms. McCutcheon stated that the proposed fish consumption rate of 175 grams/day is overly protective, not based on science and creates unenforceable standards for water quality toxics levels as the new standards would be below the current background levels of many identified toxics. Ms. McCutcheon also noted that the issues raised in item K place too much burden for emissions reduction on industry and utilities, creating a breaking point that could result in lost jobs and community impacts if Blue Heron Paper Co. ceased to operate in Oregon City.

Craig Smith, Northwest Food Producers Association: Mr. Smith is based in Portland but represents food processors across Oregon, Washington and Idaho. Mr. Smith stated that the current fish consumption rate presents an unacceptable risk, but that the proposed rate of 175 grams/day would result in water quality standards below background levels for toxics and does not make sense. Mr. Smith asked the commissioners to consider the science of background presence and evaluate ways to set water quality standards that are within the technical abilities of small and large organizations and sources to comply.

J. Discussion Item: Design of New Annual Financial Report by DEQ to EQC
Jim Roys, Department of Environmental Quality
Note: Item moved due to time availability of staff and presumed length of Items G and K
Jim Roys, DEQ's budget manager, proposed a draft annual financial report to help the EQC fulfill three of their performance measures regarding financial oversight of DEQ. Mr. Roys proposed to schedule: an annual report in February; a debriefing on results of the legislative session in August of odd-numbered years and the approval of the proposed budget in August of the even-numbered years. The commissioners agreed with this format; hence, Mr. Roys will bring the first annual report to the February 2009 EQC meeting.

Working Lunch – The EQC met in executive session beginning at 12:10pm to discuss current and pending litigation with legal counsel.
Meeting resumed at 1:05pm.

G. Action Item: Oregon's Fish Consumption Rate – For Use in Setting Water Quality Standards for Toxic Pollutants
Neil Mullane, Department of Environmental Quality; Mike Gearheard, EPA Region 10; Armand Minthorne, Confederated Tribes of the Umatilla Indian Reservation
With agreement from the presenters, the item was scheduled as follows: a brief opening presentation for background information; public comment to accommodate the large number of individuals requesting to speak on this issue; and time for questions and discussion by the commissioners.

Neil Mullane, DEQ's water quality administrator, asked the EQC to direct the DEQ to move forward on creating rules for human health criteria and water quality based on a new fish consumption rate of 175 grams/day, rather than the current rate of 17.5 g/day. Mr. Mullane explained that the new rate was arrived at cooperatively by the state, federal, and tribal governments after receiving the advice of two advisory committees and holding statewide workshops to solicit public feedback. In addition, Mr. Mullane noted that the new rate would protect the 90th percentile of northwest fish consumers and 95th percentile of consumers from the Columbia River fish consumption survey. He told the EQC that if a new fish consumption rate is adopted, DEQ will also seek to adopt new implementation tools to ensure that the new standards are cost-effective. Mr. Mullane emphasized that this rulemaking would work across many DEQ programs for strong implementation strategies and as an overall toxics reduction strategy.

Mike Gearheard, EPA Region X director of water quality and watersheds, spoke in support of Mr. Mullane's comments and the proposed rule. Mr. Gearheard noted a precedent for the EQC setting challenging standards in the past as evidence of strong environmental protection activities and priorities.

Armand Minthorne, representing the Confederated Tribes of the Umatilla Indian Reservation, expressed his support for the proposed rate of 175 g/day, and his thanks to all in their dedication to protecting Oregonians from toxics in fish. Mr. Minthorne also noted that the staff engaged in good science to determine the proposed rate and that while the rate won't address all toxics sources, it will support a future comprehensive toxics reduction strategy and shows the shared responsibility of all to protect resources now and for future generations.

Public comment during Item G, per Chairman Blosser's instructions

Llewelyn Matthews and Rich Garber of Northwest Pulp and Paper Association asked the EQC to give direction to DEQ to also look at the scientific information supporting other parts of the human health criteria formula while noting that implementation standards will not remedy standards that are not set correctly, especially where the Clean Water Act is too rigid. Ms. Matthews and Mr. Garber also noted that implementation measures are temporary in nature while the standards endure and are

considered the ultimate goal; they also expressed concern that the conversation has narrowed since August.

Ralph Saperstein of the Oregon Water Quality Coalition noted that it seemed odd to establish a rule and then determine how to soften its implementation, as well as seeing the changed fish consumption rate as not necessarily protecting tribal health and being an excessive financial burden when Oregon's economic situation is not positive.

Janet Gillaspie and Charlie Logue, representing the Oregon Association of Clean Water Agencies, distributed a handout for their brief Power Point presentation to advocate for a comprehensive approach beyond the scope of the Clean Water Act. Ms. Gillaspie and Mr. Logue emphasized the need for a cross-program approach that is a comprehensive toxics reduction approach and not focused exclusively on end-of-pipe implementation tools.

Brandy Humphreys, of the Confederated Tribes of Grand Ronde, supported the adoption of a new fish consumption rate of 175g/day and thanked the DEQ for leadership in the public process and bringing to the EQC.

Bruce Buckmaster of Salmon for All represents lower Columbia River fishing communities who aim to provide Oregonians with a healthy and wholesome product. Mr. Buckmaster noted his support for the new fish consumption rate of 175 g/day, as tougher economic times will likely lead to an increase in fish consumption for all.

Tom Downey, of the Confederated Tribes of Siletz Indians, strongly supports a rate of 175 g/day, and thanks DEQ and Director Pedersen for their work. Mr. Downey noted that there are not a lot of federal funds for the health of Tribal members, so any help with toxics rates and reductions is beneficial for Tribes.

John Ledger stressed that it is very important for the rate and implementation tools to be developed together as a means to reduce cost. Mr. Ledger noted a need for attainable standards that are affordable for the regulatory community and that the DEQ should allow for maximum flexibility when making this rule.

Lauren Goldberg representing Columbia Riverkeeper distributed a handout urging the adoption of a higher rate and enumerated flawed assumptions within DEQ's economic impact assessment and allowing mixing zones.

Jamie Pinkham, of the Columbia River Inter-Tribal Fish Commission, supported the new rate of 175 g/day as a move in the right direction, as their study recommended a rate of 389 g/day. His group recognizes this change as a demonstration of equitable environmental regulations for all citizens and the EQC showing leadership by using locally-derived standards rather than the national average.

Nina Bell, of Northwest Environmental Advocates, spoke to the importance of changing the fish consumption rate, and the difficulty of non-point sources being able to comply with the new rate. Ms. Bell said that the DEQ needs to include non-point sources if meaningful progress is to be made, and hoped the EQC would be supportive of this approach.

Mr. Mullane spoke to the demonstrated need for the increased fish consumption rate and any associated implementation plan to work cross-programmatically and for both point and non-point sources. Director Pedersen expressed his thanks to the people who have been involved with the development of the new fish consumption rate, as well as those who engaged in the public process and noted that there could be a public hearing before the EQC in the next several months if the proposed rulemaking progresses. The commissioners agreed they would like a public hearing before the EQC relating to the fish consumption rate rulemaking process.

Based upon the public testimony, Larry Knudsen, DEQ legal counsel, proposed two additions to the staff recommendation on this item, as follows:
3. Propose rule language or develop other implementation strategies to reduce the adverse impacts of toxic substances in waters of the state that are the result of nonpoint source discharges or other sources not subject to section 402 of the Clean Water Act.
4. The proposed rule and implementation measure must carefully consider the costs and benefits of the fish consumption rate and must carefully consider the data and scientific analysis already compiled or that is developed as part of the rulemaking proceeding.

Motion: Commissioner Williamson, moved to direct DEQ to (1) pursue rule revisions that will set new water quality standards for toxic pollutants in Oregon based upon on a revised fish consumption rate, and (2) propose rule language that will allow DEQ to implement the standards in an environmentally meaningful and cost-effective manner, with the two additional provisions noted above
Second: Commissioner O'Keeffe
Passed unanimously

The commissioners requested to be updated on all information relating to the fish consumption rate, with Chairman Blosser and Vice chairman Williamson to be integrated into the rulemaking process and Commissioner Dodson involved as she is able.

H. Action Item: Tax Credit Considerations
Maggie Vandehey, Department of Environmental Quality
Maggie Vandehey, DEQ's tax credit coordinator, presented tax credit summaries. Commissioner Uherbelau asked if DEQ does follow-up inspections to ensure the credits are being applied properly, to which Ms. Vandehey replied the tax credit program does not conduct follow-up.

Motion: Commissioner O'Keeffe moved to adopt the pollution control facilities tax credit applications summarized in Attachment A and detailed in Attachment B.
Second: Commissioner Dodson

Passed unanimously

Ms. Vandehey then presented a request from Gary Maffei of the M-C Ranch regarding a request for extension on their tax credit application for a large forest mulcher. Mr. Maffei presented on his situation and gave the commission two photos of the machine in question that would chip and mulch forest product on the 12,000 acre M-C Ranch. Commissioner O'Keeffe asked why this item was delayed from the August agenda, and Larry Knudsen clarified that Ms. Vandehey was unavailable in August and it was important to get her background on the issue before preceeding.

Motion: Commissioner Williamson moved to grant an extension of time to file an application as presented in Attachment C
Second: Commissioner Uherbelau
Passed unanimously

Per the approval of the extension of Mr. Maffei's application, the EQC moved to approve his tax credit application regarding the large forest mulcher.

Motion: Commissioner Dodson
Second: Commissioner Williamson
Passed unanimously

Ms. Vandehey also recommended the approval of the transfer of tax credit certificates due to a change in ownership in five cases, as noted in Attachment D.

Motion: Commissioner Williamson moved to approve the transfer of tax credit certificates as noted in Attachment D
Second: Commssioner O'Keeffe
Passed unanimously

I. Rule Adoption Item: Expedited Enforcement Offers
Jane Hickman, Courtney Brown and Les Carlough, Department of Environmental Quality
Courtney Brown, environmental law specialist at DEQ, explained that the expedited enforcement offer rulemaking would create a standard framework and basic minimum criteria of when and how expedited enforcement offers might be used, with each program to create their specific process without any need for further rulemaking. The expedited enforcement offer would allow an option for alternatives to the formal enforcement process for violations noted in the field and which do not represent significant environmental harm. Ms. Brown also explained the process and reasoning for this rulemaking, including specific criteria that must be met for eligibility.

Commissioner Uherbelau expressed concern over not hearing much about the public process for this item as well as a lack of specific language relating to severity of violations that would be eligible for expedited enforcement offers, to which Ms. Brown

explained the outreach strategy and noted that the language was left more open in order for each program to develop its own criteria by internal management directive and this rulemaking is to create an all-program framework.

Commissioner O'Keeffe asked about the potential for reduced workload from this rulemaking, and Ms. Brown noted that the reduction in workload would be for regional officers and inspectors rather than for the Office of Compliance and Enforcement.

Commissioner Blosser asked about the reasoning behind the calculation of the expedited enforcement offer penalty structure, noting that it may be too low. Mr. Carlough responded that the penalty structure was established to encourage use of the offers in a consistent and cross-program approach while making them appealing as an alternative to formal enforcement processes which are time- and resource-consuming.

Larry Knudsen, DEQ legal counsel, noted that the corrected pages for Attachments A1 through A5 should be used when considering a motion for this item. The versions included with the commissioners' meeting packets did not show deletions from existing rule language; however, the correct versions were used in all public outreach.

Motion: Commissioner O'Keeffe moved to adopt the proposed rule language, using the corrected attachments A1 through A5 as noted above
Second: Commissioner Dodson
Passed unanimously

K. Informational Item: Proposal for PGE Boardman BART and Overview of 2008 Oregon Regional Haze Plan
Andy Ginsburg and Brian Finneran, Department of Environmental Quality
Andy Ginsburg, DEQ air quality administrator, presented information on the PGE Boardman best available retrofit technology plan and a brief overview of the 2008 Oregon Regional Haze Plan.

Commissioner Uherbelau asked why the haze plan was just being done now, as it was required in December 2007 as part of the EPA's Clean Air Act. Mr. Ginsburg replied that the process was very complicated and required multi-state collaboration that resulted in all but 13 states being late with their reports. DEQ has an agreement with the EPA due to the late report, but a recently filed lawsuit against the EPA will compel them to send failure to comply notices to states whose plans are not yet done within 18 months. Oregon is about four months from completion, so there is no foreseeable negative consequence from the pending notice.

Mr. Ginsburg stated that a pre-proposal for the regional haze rule has been submitted and DEQ will issue a rule proposal in December. He noted that DEQ wanted to give the commissioners information to react to on financial impacts and have planned an extended comment period and proposed rule adoption in April 2009.

Brian Finneran, DEQ air quality planner, presented information on regional haze and how it relates to BART work at the PGE coal-fired plant in Boardman. Mr. Finneran explained the adoption of regional haze goals and milestones set by the EPA in 1999, noting that there are 12 Class I areas in Oregon subject to these standards. The haze created by burning coal at PGE Boardman significantly impacts visibility in a number of the Class I areas in Oregon and Washington. Mr. Finneran explained that for a source to be considered BART-eligible it must emit more than 250 tons per year of any haze-causing pollutant, be built between 1962 and 1977, and fall into one of 26 identified source categories. There are 10 BART-eligible sources in Oregon, with a cluster of sources in the Portland region. In all, the 10 sources subject to BART standards account for 56 percent of Oregon industry emissions, but only 18 percent if you remove PGE Boardman from the group. The 10 sources were subject to modeling criteria to determine if they significantly impacted visibility, and five sources were found to do so, of which four sources chose a federal enforcement permit level that requires them to reduce and limit emissions. The remaining source, PGE Boardman, opted not to take a federal enforcement permit level, and so is subject to the BART process.

Mr. Finneran presented a number of options and potential pollution controls available for the BART process, which involved: identifying all available controls for NOx, SO2, and particulate matter; identifying feasible and available control options; evaluating cost effectiveness of various controls; and examining a full impact analysis of cost, energy, non-air quality environmental impact and remaining useful life of the source. From this analysis, DEQ proposed recommendations to install combustion controls and selective non-catalytic reduction controls with a semi-dry scrubber between 2011 and 2018. The controls would go beyond BART measures, and move toward reasonable progress milestones required in the regional haze plan and have beneficial impacts on visibility at the Columbia Gorge, which is not a Class I area.

Mr. Ginsburg further explained that the proposed plans would have a significant financial impact to PGE, small businesses and general ratepayers with a potential increase of three to four percent. DEQ plans a communications campaign to assist small businesses and ratepayers. Mr. Ginsburg asked the commissioners how they want to be involved in the process, and the commissioners all agreed to a public hearing before the EQC as a special meeting, tentatively scheduled in early January 2009.

Mr. Ginsburg thanked the commissioners and noted the great public involvement and involvement of PGE as a reflection of the significance of this rulemaking.

L. Informational Item: Commissioner Reports

Commissioner Williamson: Oregon State University is negotiating a contract with PGE on growing algae to do lab-scale study using CO_2 from the Boardman plant. The federal forest advisory committee will issue a final report after meeting next week. OWEB went through its grant cycle at the last meeting, with $20 million of grants being dispersed. A recent report from some OSU geographers showed the ocean conditions that influence

salmon, and will be able to make predictions on fish numbers for managing fisheries on Pacific coast.

Commissioner Uherbelau: Congratulations to Maggie Vandehey for her work on the audit committee. The process is complex and relates to protecting identity and risk assessment by an outside contractor.

Adjourn: Meeting adjourned at 5:04pm.

Environmental Quality Commission
Record of Attendance

Date of Meeting October 23, 2008		**Location** **Portland, Oregon**	
Date Sent to Judy Simmons October 28, 2008		**Date Paid** 11/14/08	
Member's Name & Address	**Amount of Claim**	**Number of hours per day (for W/C)**	**Warrant Number**
Bill Blosser 914 SW Shaker Pl. Portland, OR 97225	$30	8.5 Thursday	# 05259285
Jane O'Keeffe PO Box 115 Adel, OR 97620	$30	8.5 Thursday	# 05259287
Donalda Dodson 215 Kevin Way SE Salem OR 97306	$30	8.5 Friday	# 05259286
Ken Williamson Gleeson 102 CBEE Oregon State University Corvalis, OR 97331-2702	$30	8.5 Thursday	# 05259289
Judy Uherbelau PO Box 488 Ashland Oregon 97520	$30	8.5 Thursday	# 05259288
Approved		**Date** October 28, 2008	

Received
OCT 29 2008
DEQ-Accounting

K:\EQC\Meeting Materials\Stipend - Record of Attendance.doc
Updated: 10/28/2008 by Day Marshall (added Workers' Comp hours column for Business Office records)

State of Oregon
Department of
Environmental
Quality

Umatilla Chemical Demilitarization Program
Status Update
Environmental Quality Commission
December 11, 2008

Agent Processing at the Umatilla Chemical Agent Disposal Facility (UMCDF)

Cumulative Operations:

As of November 5, 2008, 217,969 munitions have been destroyed, which represents 99 percent of all Umatilla munitions and bulk containers and 37 percent of the original Umatilla stockpile (by agent weight).

GB Operations:

GB is a high-volatility (easily vaporized) nerve agent used primarily for area clearance. Short lived in the environment, it will self-clear within a few days. The hazard of this nerve agent is mainly inhalation.

GB munitions/bulk items processing was completed July 2007. GB munitions/bulk items comprised 21.4 percent of the total Umatilla stockpile (by agent weight). The UMCDF destroyed 155,539 munitions and bulk containers filled with 2,028,020 pounds of GB nerve agent. This represented 70.5 percent of all Umatilla munitions and bulk containers and 21.4 percent of the original Umatilla stockpile (by agent weight)

The only remaining GB treatment operation is that of GB-contaminated carbon secondary wastes. The GB-contaminated wastes are transported from permitted storage to the UMCDF for treatment as incinerator availability allows.

VX Operations:

VX is a low-volatility (persistent in the environment) nerve agent used primarily to deny enemy access to an area. Without vigorous decontamination, this agent will last for several months in the environment. The hazard of this nerve agent is mainly skin contact.

All VX munitions have been treated. The 155 mm VX projectile campaign begun March 20, 2008, was completed June 27, 2008. The UMCDF completed changeover activities and began processing the eight-inch VX projectiles on July 15, 2008, and completed the campaign on August 6, 2008. The VX mines campaign began September 2008 and was completed November 5, 2008.

VX munitions/bulk items comprised 9.8 percent of the total Umatilla stockpile (by agent weight). The UMCDF destroyed 14,519 VX rockets and warheads, 1 VX ton container, 156 VX spray tanks, 32,313 155 millimeter VX projectiles, 3,752 eight-inch VX projectiles, and 11,685 VX mines.

The UMCDF is undergoing changeover activities for the start of Mustard ton container operations.

HD Operations

HD (also known as Mustard) is a low-volatility blister agent used to incapacitate enemies. Persistent in the environment, it can last for several decades under certain conditions. The hazard of this blister agent is both inhalation and skin contact.

The HD campaign is scheduled to begin April 2009 and is expected to be completed by mid-2010.

Other UMCDF Chemical Demilitarization Program News

UMCDF PMR Activity (September 12, 2008, through November 20, 2008)**:**

SUBMITTALS *(includes 08-027, which was also withdrawn during this period, and 08-042, which was approved during this period)*		
Temporary Auth Rqst	**Title**	**Submitted**
UMCDF-08-027-DMIL(TA)	Heel Transfer System	09/12/08
UMCDF-08-030-DMIL(TA)	Bulk Drain Station Modifications (resubmittal of 08-027)	10/16/08
PMR#	**Title**	**Submitted**
UMCDF-08-029-MISC(1N)	Redline Annual Update to BRA, TANK, and MISC Systems (resubmittal of rejected 08-017)	9/18/08
UMCDF-08-042-DFS(1R)	Deactivation Furnace System (DFS) Feed Rates	9/18/08
UMCDF-08-035-MISC(1N)	Redline Annual Update to CHB, HVAC and MISC Systems (resubmittal of rejected 08-019)	10/16/08

DENIALS/REJECTIONS/WITHDRAWALS				
PMR#	**Title**	**Received**	**Decision**	
UMCDF-08-005-INSP(2)	Inspection Schedule Update	6/24/2008	Denied	09/22/08
UMCDF-08-027-DMIL(TA)	Heel Transfer System	9/12/2008	Withdrawn	10/14/08

APPROVALS/ACCEPTANCES *(The temporary authorization request [TAR] for PMR 08-010 was also submitted during this period)*			
TAR#	**Title**	**Received**	**Decn**
UMCDF-08-030-DMIL(TA)	Bulk Drain Station Modifications	10/16/08	10/21/08
PMR#	**Title**	**Received**	**Decn**
UMCDF-08-006-ACS(2)	ACS and SDS Increase in Tank Capacity	7/22/2008	11/13/2008

UMCDF-08-042-DFS(1R)	Deactivation Furnace System (DFS) Feed Rates	9/18/2008	9/24/2008

ADDITIONAL PUBLIC COMMENT PERIODS[3]
Additional public comment periods were opened for the following PMRs

PMR#	Title	Received	Additional Cmt Period	Public Comment Period Close
UMCDF-08-021-MON(2)	HD Multiagent Monitoring	08/12/08	30 days	11/24/08
UMCDF-08-010-DMIL(3TA)	Depressurization Glove Box Miscellaneous Unit	08/19/08	60 days	01/06/09
UMCDF-08-034-MPF(2)	Miscellaneous MPF Mustard (HD) Design Changes	08/26/08	30 days	12/08/08

IN PROCESS: The following PMNs and PMRs are under Department review
(includes 08-010, 08-021, 08-025, and 08-034, which were also submitted during this period)

PMR#	Title	Received	Public Comment Period Close	Target Decision/ Review Date
UMCDF-05-034-WAST(3)	Deletion of the DUN and Addition of the CMS	10/25/05	12/24/05[1]	TBD
UMCDF-07-006-DFS(3TA)	Minimum Temperature Limit Change on the DFS	01/16/07	04/25/08[2]	TBD
UMCDF-07-005-MISC(2)	Condition II.M-Liability Insurance Requirement Changes	01/30/07	04/02/07	01/15/09
UMCDF-08-018-MPF(2)	MPF DAL Low-Temperature Monitoring Changes	05/13/08	07/14/08[1]	12/31/08
UMCDF-08-037-MISC(1N)	Annual Procedures Update	05/29/08	N/A	TBD
UMCDF-08-033-BRA(2)	Brine Loadout Station	06/24/08	08/25/08[1]	12/30/08
UMCDF-08-022-WAST(2)	Brine Management	07/01/08	09/01/08[1]	03/31/09
UMCDF-08-021-MON(2)	HD Multiagent Monitoring	08/12/08	10/14/08[1] 11/24/08[3]	12/24/08
UMCDF-08-010-DMIL(3TA)	Depressurization Glove Box Miscellaneous Unit	08/19/08	10/18/08[1] 01/06/09[3]	02/06/09
UMCDF-08-034-MPF(2)	Miscellaneous MPF Mustard (HD) Design Changes	08/26/08	10/25/08[1] 12/08/08[3]	01/07/09
UMCDF-08-025-MISC(1N)	Redline Annual Update-DMIL/MDB/ Misc Systems	09/08/08	N/A	12/29/08
UMCDF-08-029-MISC(1N)	Redline Annual Update to BRA, TANK, and MISC Systems	09/18/08	N/A	12/23/08
UMCDF-08-035-MISC(1N)	Redline Annual Update to CHB, HVAC and MISC Systems	10/16/08	N/A	12/16/08

[1] Initial (permittee) public comment period.
[2] Department (draft permit) public comment period.
[3] Additional public comment period required/opened due to incompleteness of original PMR submittal

UMCD PMR Activity September 12, 2008, through November 20, 2008:

SUBMITTALS

PMR#	Title	Submitted
UMCDF-08-002-MON(1R)	SUOMP Igloo Monitoring (resubmittal of PMR 08-001)	11/18/08

Significant Events at Other Demilitarization Facilities

Anniston Chemical Agent Disposal Facility (ANCDF), Alabama
The ANCDF processed the last of its VX projectiles May 24, 2008, and, after a nine-week changeover, began processing VX land mines August 2, 2008. It is estimated the ANCDF will completed VX land mine processing spring 2009, which will be the last of the VX agent scheduled to be destroyed by CMA.

Pine Bluff Chemical Agent Disposal Facility (PBCDF), Arkansas
The PBCDF has destroyed 16 percent of its total stockpile (by agent weight). The PBCDF has completed processing VX chemical agent having treated the last VX landmine June 20, 2008. It is undergoing changeover activities preparatory to the start of HD ton container processing scheduled to begin the first week of December 2008.

Tooele Chemical Agent Disposal Facility (TOCDF), Utah

TOCDF agent disposal is 74 percent complete.

Sampling of the 6,397 HD ton containers in the TOCDF stockpile was completed July 29, 2008. Processing of low-heel, low-mercury (≤ 1 parts per million of mercury) ton containers resumed August 25, 2008.

High-heel ton container operations utilizing the heel transfer system began October 3, 2008.

Three sulfur-impregnated carbon (SIC) filters have been installed as part of an expansion to the existing pollution abatement system. The SIC filters are being used to capture mercury that may remain after incineration of high-mercury (> 1 parts per million mercury) mustard mortars and ton containers.

Newport Chemical Agent Disposal Facility (NECDF), Indiana

Newport has completed agent disposal operations. It is the third site to complete operations, following JACADS in 2000 and ABCDF in 2006. Closure activities will occur over an 18- to 24-month period.

Pueblo Chemical Agent Destruction Pilot Plant (PCAPP), Colorado
Neutralization followed by biotreatment will be used to destroy the Pueblo 2,611-ton HD stockpile (artillery and mortar projectiles). The overall design is complete and some construction

is under way, but site-specific equipment (e.g., munitions treatment unit, projectile mortar disassembly machine) is still being designed and fabricated in preparation for testing this fall.

Because of continuing schedule delays, the State of Colorado issued a hazardous waste compliance order in June 2008 mandating the destruction of chemical weapons at Pueblo by 2017, which is four years ahead of the Department of Defense's latest schedule for destruction at the site, but matches congressional mandates that were put in force less than a year ago. The order indicates the Pueblo Chemical Depot has long been out of compliance with state hazardous waste regulations that limit the amount of time hazardous waste may be stored. The Army is disputing the order.

Blue Grass Chemical Agent Destruction Pilot Plant (BGCAPP), Kentucky
Neutralization followed by supercritical water oxidation (SCWO) will be used to destroy the Blue Grass 523-ton stockpile or nerve and mustard agents. Chemical agent operations are slated to begin 2017 and to be completed by 2023.

The design work is 87 percent complete.

Blue Grass Chemical Activity has had two leaking mustard projectiles in separate igloo magazines. Neutralization of three GB ton containers (Operation Swift Solution) began November 12, 2008.

On September 30, 2008, the NRC released a report on secondary waste disposal planning for ACWA disposal plants. It concludes that shipment of certain secondary wastes to suitable offsite TSDFs could have significant advantages: savings in facility infrastructure and equipment costs, smaller facility footprint, and shorter closure time.

Chemical Weapons Destruction Program
Glossary of Acronyms and Terms of Art

ABCDF – Aberdeen Chemical Agent Disposal Facility, located at the Aberdeen Proving Grounds in Maryland

ACAMS – Automatic Continuous Air Monitoring System – the chemical agent monitoring instruments used by the Army to provide low-level, near real time analysis of chemical agent levels in the air

ANCDF – Anniston Chemical Agent Disposal Facility, located at Anniston Army Depot in Alabama

ATB – agent trial burn – test burns on incinerators to demonstrate compliance with emission limits and other permit conditions

AWFCO instrument– Automatic Waste Feed Cutoff – an instrument that monitors key operating parameters of a high temperature incinerator and automatically shuts off waste feed to the incinerator if prescribed operating limits are exceeded

BGCA – Blue Grass Chemical Activity, located at the Blue Grass Army Depot in Kentucky

BGCAPP – Blue Grass Chemical Agent Destruction Pilot Plant, new designation for BGCA.

BRA – Brine Reduction Area – the hazardous waste treatment unit that uses steam evaporators and drum dryers to convert the salt solution (brine) generated from pollution abatement systems on the incinerators into a dry salt that is shipped off-site to a hazardous waste landfill for disposal

CAC – Chemical Demilitarization Citizens Advisory Commission – the nine member group appointed by the Governor to receive information and briefings and provide input and express concerns to the U.S. Army regarding the Army's ongoing program for disposal of chemical agents and munitions – each state with a chemical weapons storage facility has its own CAC – in Oregon the DEQ's Chemical Demilitarization Program Administrator and the Oregon CSEPP Manager serve on the CAC as non-voting members

CAMDS – Chemical Agent Munitions Disposal System – the former research and development facility for chemical weapons processing, located at the Deseret Chemical Depot in Utah

CDC – Centers for Disease Control and Prevention – a federal agency that provides oversight and technical assistance to the U.S. Army related to chemical agent monitoring, laboratory operations, and safety issues at chemical agent disposal facilities (Website: http://www.cdc.gov/nceh/demil/)

CMA – U.S. Army's Chemical Materials Agency, the agency responsible for chemical weapons destruction (Website: http://www.cma.army.mil/)

CMP – comprehensive monitoring program – a program designed to conduct sampling of various environmental media (air, water, soil and biota) required by the EQC in 1997 to confirm the projections of the Pre-Trial Burn Health and Ecological Risk Assessment.

CMS – carbon micronization system – a new treatment system that is proposed to be used in conjunction with the deactivation furnace system to process spent carbon generated at UMCDF during facility operations – the CMS would pulverize the spent carbon and then inject the powder into the deactivation furnace system for thermal treatment to destroy residual chemical agent adsorbed onto the carbon

CSEPP – Chemical Stockpile Emergency Preparedness Program – the national program that provides resources for local officials (including emergency first responders) to provide protection to people living and working in proximity to chemical weapons storage facilities and to respond to emergencies in the event of an off-post release of chemical warfare agents (Website: http://csepp.net/)

CWC Treaty – Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction. Ratified by the U.S. Senate on April 24, 1997.

CWWG – Chemical Weapons Working Group, an international organization opposed to incineration as a technology for chemical weapons destruction and a proponent of alternative technologies, such as chemical neutralization (Website: http://www.cwwg.org/)

DAAMS – Depot Area Air Monitoring System – the system that is utilized for perimeter air monitoring at chemical weapons depots and to confirm or refute ACAMS readings at chemical agent disposal facilities – samples are collected in tubes of sorbent materials and taken to a laboratory for analysis by gas chromatography

DAL – discharge airlock – a chamber at the end of MPF used to monitor treated waste residues prior to release.

DCD – Deseret Chemical Depot – the chemical weapons depot located in Utah

DFS – deactivation furnace system – a high temperature incinerator (rotary kiln with afterburner) used to destroy rockets and conventional explosives (e.g., fuses and bursters) from chemical weapons

DPE – demilitarization protective ensemble – the fully-encapsulated personal protective suits with supplied air that are worn by workers in areas with high levels of agent contamination

DUN – dunnage incinerator – high temperature incinerator included in the original UMCDF design and intended to treat secondary process wastes generated from munitions destruction activities – this incinerator was never constructed at UMCDF

ECR – Explosive Containment Room – UMCDF has two ECRs used to process explosively configured munitions. ECRs are designed with reinforced walls, fire suppression systems, pressure sensors, and automatic fire dampers to detect and contain explosions and/or fire that might occur during munitions processing

EONC – Enhanced Onsite Container – Specialized vessel used for the transport of munitions and bulk items from UNCD to UMCDF and for the interim storage of those items in the UMCDF Container Handling Building until they are unpacked for processing

G.A.S.P. – a Hermiston-based anti-incineration environmental group that has filed multiple lawsuits in opposition to the use of incineration technology for the destruction of chemical weapons at the Umatilla Chemical Depot – G.A.S.P. is a member of the Chemical Weapons Working Group

GB – the nerve agent sarin

HD – the blister agent mustard

HVAC – heating, ventilation, and air conditioning

HW – hazardous waste

I-Block – the area of storage igloos where ton containers of mustard agent are stored at UMCD

IOD – integrated operations demonstration – part of the Operational Readiness Review process when UMCDF demonstrates the full functionality of equipment and operators prior to the start of a new agent or munition campaign.

JACADS – Johnston Atoll Chemical Agent Disposal System, the prototype chemical agent disposal facility located on the Johnston Atoll in the Pacific Ocean (now closed and dismantled)

J-Block – the area of storage igloos where secondary wastes generated from chemical weapons destruction are stored at UMCD

K-Block – the area of storage igloos where chemical weapons are stored at UMCD

LIC1 & LIC2 – liquid incinerators #1 & #2 – high temperature incinerators (liquid injection with afterburner) used to destroy liquid chemical agents

MDB – munitions demilitarization building – the building that houses all of the incinerators and chemical agent processing systems. The MDB has a cascaded air filtration system that keeps the building under a constant negative pressure to prevent the escape of agent vapor. All air from inside the MDB travels through a series of carbon filters to ensure it is clean before it is released to the atmosphere.

MPF – metal parts furnace – high temperature incinerator (roller hearth with afterburner) used to destroy secondary wastes and for final decontamination of metal parts and drained munitions bodies

NECDF – Newport Chemical Agent Disposal Facility, located at the Newport Chemical Depot in Indiana

NRC – National Research Council

ORR – operational readiness review – a formal documented review process by internal and external agencies to assess the overall readiness of UMCDF to begin a new agent or munitions processing campaign.

PBCDF – Pine Bluff Chemical Agent Disposal Facility, located at the Pine Bluff Arsenal in Arkansas

PCAPP – Pueblo Chemical Agent Destruction Pilot Plant, new designation for PUCDF.

PFS – the carbon filter system installed on the pollution abatement systems of the incinerators used for chemical agent destruction

PICs – products of incomplete combustion – by-product emissions generated from processing waste materials in an incinerator

PMR – permit modification request

PMN – permit modification notice

PUCDF – Pueblo Chemical Agent Disposal Facility, located at the Pueblo Chemical Depot in Colorado

SAP – sampling and analysis plan

SETH – simulated equipment test hardware – "dummy" munitions used by UMCDF to test processing systems and train operators before the processing of a new munitions type. SETH munitions are often filled with ethylene glycol to simulate the liquid

chemical agent so that all components of the system, including the agent draining process, can be tested.

TAR – Temporary Authorization Request

TOCDF – the Tooele Chemical Agent Disposal Facility, located at the Deseret Chemical Depot in Utah

UMCD – Umatilla Chemical Depot

UMCDF – Umatilla Chemical Agent Disposal Facility

WAP – waste analysis plan –a plan required for every RCRA permit which describes the methodology that will be used to characterize wastes generated and/or managed at the facility.

WDC – Washington Demilitarization Company, LLC – the Systems Contractor for the U.S. Army at UMCDF.

VX – a nerve agent

State of Oregon
Department of Environmental Quality Memorandum

Date: November 24, 2008

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item C, Informational Item: Director's Dialogue
December 11-12, 2008 EQC meeting

Climate Change
We have developed two Governor-sponsored greenhouse gas bills for the 2009 Legislative Session. The first bill grants EQC authority to adopt rules for a cap and trade program with some restrictions. The bill would establish a citizens' climate change taskforce to advise DEQ during rule development and require DEQ to submit an economic analysis to the 2011 Legislature. The bill postpones implementation of the rules until after legislative review in 2011. This bill would also fill gaps in EQC's authority to require greenhouse gas reporting and provide EQC the authority to establish fees to pay for the program.

The second bill provides EQC with general authority to adopt complementary measures to reduce greenhouse gas emissions. This may include measures such as a low carbon fuel standard, sale requirements for low rolling resistance tires and prohibition of certain products which contribute to global warming when alternatives are readily available.

We have also begun implementation of the greenhouse gas reporting rule adopted in October. We have held well-attended workshops around the state to provide training to businesses and organizations on preparing the required reports. In addition, we have continued to work with our partners in the Western Climate Initiative on reporting requirements for the cap and trade program and protocols for calculating emissions.

Senate Bill 737
The 2007 Oregon Legislature passed Senate Bill 737, which requires DEQ to consult with all interested parties to develop a list of priority persistent bioaccumulative pollutants by June 2009 and report back to the legislature on the list and source reduction and control methods that can reduce discharges in 2010. Senate Bill 737 also requires Oregon's 52 largest municipal wastewater treatment plants to develop plans by July 2011 for reducing priority persistent pollutants through pollution prevention and toxics reduction. At present, DEQ, in cooperation with an expert science workgroup, is mid-way through a multi-step effort to compile, refine and prioritize a draft list of persistent pollutants. A draft list has been developed that reflects the work completed to date. We will also be assembling additional workgroups of experts for different phases of the

project. We continue to update our Senate Bill 737 website, are developing a communication and outreach plan and are working toward rulemaking as required by the legislature. Funds for one staff position and Attorney General costs have been requested in DEQ's 2009-11 agency request budget to implement the ongoing work associated with Senate Bill 737.

Columbia River Total Dissolved Gas Waiver Adaptive Management Update
DEQ has evaluated the technical information presented to the Adaptive Management Team and synthesized the technical information in order for DEQ to make a decision on the need for the 115 percent forebay Total Dissolved Gas (TDG) monitoring requirement as specified in the current TDG waiver. The synthesis document is a joint effort, co-authored by Washington Department of Ecology and DEQ.

If the 115% percent TDG forebay monitoring requirement was removed, the amount of fish passage spill could be increased in the near-term by about one to two percent. If the current biological opinion and energy spill volumes change significantly over time, removal of the 115 percent forebay requirement has the possibility of being even more significant, up to a theoretical maximum of 60 percent more spill in some years.

With an increase in spill of one to two percent, each analysis found that there is likely a small positive effect on Chinook survival (greater than zero but less than one percent). Some analyses found the potential for much greater survival (four to nine percent) at the higher spill estimates. One analysis found there also might be small negative effects on Snake River steelhead.

TDG would likely increase by about 0.3 percent in the forebays and 0.1 percent in the tailraces if spill was increased by two percent. A small increase of less than one percent in overall bubble trauma in salmon is predicted if the 115 percent forebay requirement was eliminated. At 116 to 120 percent TDG in the forebays, about 1.4 percent of fish exhibit signs of gas bubble trauma. In Oregon's TDG waiver, fish passage spill is terminated if 15 percent of the fish exhibit signs of gas bubble trauma. Fish passage spill has never been terminated due to incidence of gas bubble trauma since the beginning of the program in 1996.

Based on the information presented to the TDG Adaptive Management Team, the DEQ finds that the removal of the forebay monitoring requirement under section 3(vi) of the current TDG waiver, issued June 22, 2007, will not cause excessive harm to the beneficial use aquatic species in the Columbia River during fish passage spill season as defined in the TDG waiver.

The information presented at the Adaptive Management Team meeting, including notes can be found at:
http://www.ecy.wa.gov/programs/wq/tmdl/ColumbiaRvr/ColumbiaTDG.html

Records Retention Policy and Schedule

DEQ is embarking on an agency-wide project to update our records retention policy and schedule. We are doing this because our existing policy and schedule were last updated in 1997 and an administrative review done in early 2000 indicated that records management should be a primary focus for DEQ. We are working closely with the Secretary of State's Archive Division. In the past month, a team representing all program activities and most DEQ locations was assembled and received records management training. The project will include a review of all of our current records management processes (including electronic copies) and needs, development and submittal of a DEQ-specific records retention plan to the Secretary of State and then updating our policy and training all staff. This project is expected to be complete by the end of the current biennium.

New Federal Lead Air Quality Standard

On October 15, 2008, the EPA lowered the National Ambient Air Quality Standard (NAAQS) for lead from 1.5 micrograms per cubic meter (ug/m3) to .15 ug/m3. Lead is a very potent toxic substance that can cause neurological damage, and recent health studies show that a lower (more protective) air quality standard is needed. DEQ currently monitors for lead in the Portland Metro Area, Beaverton, Eugene and La Grande. Until 2001, we also monitored for lead in Medford. Our data shows that lead levels are well below even the new lead standard in these representative urban locations. Lead levels could be higher in close proximity to lead sources, such as steel mills and airports that serve piston engine aircrafts. At present, resources for additional lead monitoring are extremely limited. The EPA plans to require monitoring near large lead sources and in large urban areas, but it is not clear whether the EPA will provide additional resources for this monitoring. A fact sheet is available with more information.

Fine Particulate Nonattainment Areas

The communities of Klamath Falls and Oakridge currently violate federal air quality standards for fine particulate and the EPA has designated these areas as being in "nonattainment". DEQ and the Lane Regional Air Protection Agency have already begun working in these communities to develop plans for bringing air quality into compliance with standards. One of the first steps in this process is for the EPA to establish formal nonattainment area boundaries for Klamath Falls and Oakridge. DEQ and the Lane Regional Air Protection Agency have been working with the EPA to agree on an appropriate boundary. The Klamath County commissioners have also been discussing the boundary issue with the EPA. There has been some disagreement between DEQ and the EPA over an appropriate boundary for these communities.

On the east coast, fine particulate violations tend to be driven by wide ranging, regional-scale emissions and fine particulate nonattainment area boundaries have often been established to cover one or more counties. In the west, particulate problems are more localized; and are typically driven primarily by local woodstove smoke, open burning, motor vehicles and, in some cases, local industrial emissions in a community. Oregon's

nonattainment boundaries in the past have been based on urban growth boundaries that include key contributing emission sources. DEQ and the Lane Regional Air Protection Agency have proposed fine particulate nonattainment boundaries based on urban growth boundaries for Klamath Falls and Oakridge based on our analyses of emission sources contributing to the problems. The EPA headquarters' staff initially recommended much larger "partial-county" boundaries for Klamath Falls and Oakridge that included large portions of Klamath County and Lane County. DEQ, the Lane Regional Air Protection Agency, and the Klamath County commissioners believe EPA's recommended boundary is unnecessarily large, which could have negative economic impacts on rural areas and set a precedent for any other Oregon communities that may violate fine particulate standards in the future. DEQ has been providing supplemental data to the EPA to support our boundary recommendations, and EPA's Region 10 staff are supportive of Oregon's position. A final decision from EPA's headquarters is expected soon.

Update on proposed liquefied natural gas projects in Oregon

Proposals for three liquefied natural gas (LNG) facilities are moving forward in Oregon: the Bradwood Landing LNG project on the Columbia River between Astoria and Clatskanie, the Oregon LNG project on the Columbia River in Warrenton, and the Jordan Cove/Pacific Connector LNG project near North Bend. Under the 2005 Energy Policy Act, the Federal Energy Regulatory Commission has authority to regulate and site LNG facilities, but DEQ and other state agencies must issue state permits and approvals before LNG facilities can operate in Oregon.

The proposed Bradwood Landing LNG project is farthest along in the permitting process. In fall 2007, we began the process of developing a Clean Water Act 401 Certification for the project, which can include conditions to ensure that the project will meet state water quality standards. In January 2008, we held a public meeting in Astoria to share information about the certification process and solicit input from community members. Over 150 people attended, and we coordinated the involvement of other permitting agencies; including the Oregon Department of Land Conservation and Development, the National Marine Fisheries Service and the Army Corps of Engineers. This past spring we requested additional information from Northern Star Natural Gas on how the project would affect state waters. Northern Star withdrew their certification application this summer in order to take more time to prepare the requested information. Northern Star has stated that they plan to re-apply for 401 certification, and when that happens DEQ will hold another public meeting in the area to share information and seek comments from community members. Prior to beginning construction, the Bradwood Landing project will also need DEQ permits for air emissions, wastewater discharge and stormwater control.

This fall, the Federal Energy Regulatory Commission issued a conditional license to Northern Star, giving a "go ahead" for the project, and the State of Oregon and others petitioned for reconsideration based on the assertion that the Federal Energy Regulatory Commission should not issue the license until DEQ, the National Marine Fisheries Service and the Oregon Department of Land Conservation and Development make

decisions related to 401 Certification, Endangered Species Act consultations and consistency with the Coastal Zone Management Act. Northern Star has responded by asking the Federal Energy Regulatory Commission not to act on the petition, and the state is now weighing options for next steps. The petition for reconsideration was the last administrative step needed before the state could initiate formal litigation.

The proposed Oregon LNG project filed an application with the Federal Energy Regulatory Commission in mid-October to build a LNG facility in Warrenton. The project has been in the pre-application process since May 2007, which involved preparing reports about potential impacts of the facility and pipeline and seeking comments. In late October 2008, DEQ received an application for an air emissions permit and we are currently reviewing the application. There may be an issue with the local land use compatibility statement that accompanied the permit that requires clarification from the City of Warrenton, and we are consulting with the Department of Justice on this. If the land use compatibility statement is valid we will need to determine whether we have the resources needed to proceed with one permit application or whether we will wait until other permit applications have been submitted to move forward. We plan to convene public meetings in Warrenton in the near future in order to share information with community members and hear local concerns and issues.

The proposed Jordan Cove LNG project is proposed for the Port of Coos Bay and includes the Jordan Cove Energy Project, an LNG receiving terminal, and the Pacific Connector Pipeline, a 231-mile natural gas pipeline that would link the Jordan Cove terminal with PG&E's interstate pipeline in Malin, Oregon.

This fall, DEQ reviewed and provided comments to the Governor's office on a draft environmental impact statement for the proposed project. Potential environmental impacts span many DEQ programs, including cleanup, solid waste, spills and emergency planning, air quality and water quality. Critical issues included potential thermal loading, sedimentation and increased turbidity from the pipeline project, and potential impacts to Coos Bay estuary habitat from the LNG facility and pipeline. These impacts are summarized below.

- Thermal Loading: the proposed 231-mile pipeline route goes through four watershed basins with streams and tributaries that have temperature limitations to ensure water quality. Total maximum daily load plans have been developed for the South Umpqua and Upper Rogue sub-basins, and are being developed for the Coos, Coquille, and Upper Klamath sub-basins to reduce thermal loading. The pipeline would require removal of streamside vegetation to create approximately 100-foot buffers on each side of the stream. Temperature impacts related to reduced vegetation are dependent on the stream's size and aspect, and the time of year the construction is occurring.
- Sedimentation and increased turbidity: the proposed pipeline route moves through some very steep terrain and crosses 371 streams, rivers and wetlands. DEQ is concerned about mass wasting and slope failures that might be triggered by vegetation removal and pipeline construction, causing sedimentation and turbidity

in these water bodies. While we understand that separating natural from man-made landslide causation can be difficult to do, we have stated the need to see how slope failures and mass wasting events triggered by pipeline construction will be assessed and mitigated.

- Impacts to Coos Bay: additional dredging to deepen and maintain the existing channel would be needed to accommodate the size of LNG-carrying ships proposed for the facility in Coos Bay. Additional maintenance dredging was not considered in the draft environmental impact statement, however, and deepening the channel could have significant environmental impacts requiring considerable study and evaluation. No clam surveys were mentioned, no habitat assessment was provided, and no sediment quality results were presented to begin an assessment of potential impacts, and these crucial elements should be included in the Jordan Cove proposal.

The state has requested a 120-day extension to the Federal Energy Regulatory Commission's comment period on the draft environmental impact statement, which is still missing significant and required information. The applicants have not yet filed any permit applications with DEQ, but they have been working with DEQ's Air Quality Division to prepare the model for the Title V permit. The state has not yet hosted any public meetings on this project, but the Federal Energy Regulatory Commission has held several informational meetings in Roseburg, Medford and Coos Bay over the past two years. If this project moves forward, DEQ will hold local public meetings once we receive and begin to process permit applications.

Product Stewardship

DEQ continues to develop this legislative concept (Concept # 888) in preparation for the 2009 Legislative Session. To date, DEQ has held three open forums to discuss this concept. Representatives from environmental and public health groups, local governments, the solid waste industry and agency staff from California and Washington have all participated in these forums.

At a recent meeting, DEQ introduced a list of potential products that could be identified in the 2009 legislation. If the legislation named two or three products, then DEQ would take stakeholder input and start rulemaking in late 2009 or early 2010. The potential products discussed with stakeholders included carpet and related padding, mercury-containing lamps, mercury thermostats, paint and rechargeable batteries.

DEQ presented a proposal intended to create an inclusive and deliberative process to select products. The proposal requires DEQ to work with a stakeholder group to identify and evaluate products appropriate for a stewardship program. DEQ would then submit a set of recommendations to EQC for their review and ultimately to the 2009 Legislature for final selection.

Further evaluation and discussion is needed to determine what, if any, specific products are added to the 2009 legislation. In addition, some stakeholders continue to express

concern about the broad spectrum of products potentially impacted by the legislation as well as which entity would actually be responsible for financing and operating a product stewardship program.

Oregon E-Cycles
DEQ staff have continued education and outreach efforts in anticipation of the January 1, 2009 launch of Oregon E-Cycles and the newly-designed Oregon E-Cycles web site went live on November 17. The searchable database that will allow consumers to find collection sites and services, as well as a consumer information hotline (1-888-5-ECYCLE), will be available on December 15. Staff have conducted informational meetings and conference calls with DEQ regions and local governments to help them answer questions and promote the program.

DEQ is in the process of reviewing manufacturer recycling plans. For final approval, plan representatives needed to demonstrate that they had finalized agreements for statewide sites and services by November 15. DEQ recently approved three manufacturer-run collection programs: Dell Inc., of Round Rock, Texas; Washington, D.C.-based Manufacturers Recycling Management Company LLC; and the Individual Producers Responsibility Group. The three manufacturer programs plus the state contractor-run program operate under the Oregon E-Cycles umbrella. DEQ is working with representatives of all three plans and the State Contractor Program to help coordinate collection services and outreach efforts.

DEQ's next E-Cycles Advisory Workgroup meeting is scheduled for December 16th at DEQ headquarters.

Bottle Bill
The Bottle Bill Task Force completed its recommendations for improving the bottle bill and reported its work to House and Senate Legislative Committees. The Legislative Counsel Office completed the drafting of a legislative concept requested by DEQ that reflects the task force recommendations. DEQ has submitted the concept to DAS for pre-session filing by the Governor and we expect that to occur in early January.

The task force concluded that comprehensive legislation is needed in 2009 to ensure that the bottle bill remains successful for years to come. Its recommendations and the DEQ legislative concept include establishing a container return rate goal of at least 80 percent beginning in 2015; adding sport drinks, juices and similar non-carbonated drinks, wine and distilled liquor beginning in 2013 and changing the container refund value to ten cents beginning in 2011. Making these improvements provides significant litter control and recycling benefits, and energy and greenhouse gas savings.
Beer and soft drink distributors and grocers, the OLCC and DEQ continue to prepare for January 1, 2009 implementation of the changes to the bottle bill made by the 2007 Legislature. Water or flavored water bottles will have a refund value of five cents and large stores will be accepting all containers they sell, not only the brand they sell, for

refund. We are revising DEQ's bottle bill web page to provide updated information to the public and have been coordinating with the OLCC as we prepare for increased media attention as the January 1, 2009, implementation date approaches.

Recycling Markets Decline

As the EQC is probably aware, recycling markets have declined steeply worldwide and in Oregon. Prices for recycled materials have dropped more sharply and rapidly than anyone predicted or can recall happening in the past and the markets continue to change daily.

Oregon's recycling community gathered recently with experts to better understand how the recycling markets crisis is affecting recycling systems in Oregon and to begin addressing how to respond to the challenges we face. The only certainty that emerged is that the immediate future in recycling will remain unpredictable. All participants were committed to finding solutions that protect the integrity of Oregon's recycling systems.

If markets and other management options for recyclable materials were to collapse entirely, local governments, collectors, or processors might request DEQ to allow disposal of source-separated recyclables (currently prohibited by law) or to allow local governments to curtail or drop materials currently required to be collected under their opportunity to recycle programs. DEQ could use enforcement discretion to approve isolated requests, but would likely initiate temporary rulemaking to address more widespread approvals. Although the immediate focus is on weathering the current crisis, the collapse in recycling markets also offers opportunities to better integrate recycling into broader strategies to promote sustainability and greener economic development.

State Revenue Forecast

On November 19, the state revenue forecast was released. It showed that the economic downturn is much greater than was forecasted at the September forecast and the long term prognosis is we should expect further declines in both General Fund and Lottery Fund revenues in 2009. The implication is that Governor's Recommended Budget, released December 1, may be overestimating revenues. During the 2009 Legislative Session, there will be a March and May revenue forecast. If the downward trend continues, there will need to be further reductions in state spending or new revenue sources.

There are two direct affects from the recent forecast. The Governor has asked for a 1.2 percent across-the-board reduction in General Fund fees for the reminder of the 2007-09 biennium (through June 30, 2009). At the same time, the Legislative Fiscal Office has asked state agencies to identify five percent reduction options for the remainder of this biennium and an additional ten percent worth of reduction options for 2009-11. For 2009-11, this is on top of the ten percent reduction options submitted in the agency request budget.

As a final note, on December 1 the Governor requested that state employees take one furlough day per quarter. We will provide more details about the DEQ budget request and the revenue impacts during Item N on tomorrow's agenda.

Greenhouse Gas Reporting – Web page content

On Oct. 23, 2008, the Environmental Quality Commission approved new Greenhouse Gas (GHG) reporting rules. The rules are needed to gain a better understanding of the sources of greenhouse gas emissions in Oregon, and to track progress toward meeting GHG emission reduction goals. The new rules will govern the collection of data regarding GHG emission sources in Oregon.

In the near future, this Web site will include general reporting procedures; a matrix of Department approved reporting protocols and emissions quantification methods; emissions calculation tools, instructions and hyperlinks; a list of resources; and reporting forms. In the meantime, this site offers basic information to help you prepare for addressing GHG emissions in 2009.

Workshops Scheduled for Affected Businesses

Oregon DEQ will hold four GHG reporting workshops for phase 1 affected businesses in November 2008 at the following locations and times:

Date and Time	City	Location and phone number
Nov. 4 1:30-3:30 pm	Portland	DEQ Northwest Region Office, 4th Floor, Room A/B 2020 SW Fourth Avenue, Portland 503-229-5263
Nov. 13 3:15-5:00 pm	Medford	Jackson County Courthouse Auditorium 10 S Oakdale Avenue, Medford 541-774-6116
Nov. 18 3:30-5:30 pm	Bend	Central Oregon Environmental Center 16 NW Kansas, Bend 541-385-6908 *This event does not necessarily reflect the mission of The Central Oregon Environmental Center.*
Nov. 20 1:00-3:00 pm	Eugene	Eugene Public Library 100 W. 10th Avenue Eugene, OR 97401 541-682-5450
Dec. 3 1:30-3:30 pm	Portland	DEQ Northwest Region Office, 4th floor, Room A/B 2020 SW Fourth Ave., Portland 503-229-5263 (DEQ will provide a call-in number for this meeting which can accommodate up to 16 lines. DEQ requests one line per company and the call-in line is only for those businesses located outside of the Portland metro area. This line is provided on a first-come, first-served basis. Please RSVP with Brandy

		Albertson by 12 noon on 12/3/2008 at the phone number below.)

No registration necessary for workshops. For questions about workshops, contact Brandy Albertson at 503-229-6459.

Workshop Materials

Presentation
Handout Materials

Greenhouse Gas Reporting Requirements

Who Must Report

Permitted facilities that must report emissions for calendar year 2009 are:

- Facilities that have a Title V permit and emit 2,500 metric tons of combined greenhouse gases measured as CO2 equivalents (mtCO2e) per year; and
- Subset of facilities with ACDPs are required to report if they are listed in Table 1 or Table 2 and emit 2500 mtCO2e per year.

All facilities should calculate their 2009 GHG emissions to determine if they are exempt from the reporting requirements. However, as a rough guide, facilities that use less than the following amounts of fuel are probably exempt, assuming there are no other GHG emission sources at the facility.

Fuel Type	Fuel quantity per 2500 mtCO2e
Natural gas	45,700,000 cubic feet
Distillate fuel oil	245,500 gallons
Residual fuel oil	211,200 gallons
Wood	1,695 tons at 12 percent moisture
Propane	426,900 gallons

Records to Keep

Calculation of GHG emissions is based on throughputs, fuel usage, emission factors, and conversion factors. Once the calculations are completed, the report itself should be sufficient for the required record keeping. Records must be retained for five years. Please check back in the future for an example of a completed report.

How to Report in 2010

If you submit an annual report to DEQ, your GHG emission reports should be submitted to DEQ with your annual report, by the normal due date.

If your permit does not require an annual report or you are reporting voluntarily, the GHG emission report for 2009 should be submitted by March 15, 2010, to the DEQ regional office for your facility's location.

Reporting Protocols and Emissions Quantification Methodologies

DEQ's efforts to quantify GHG emissions are connected to regional efforts through the Western Climate Initiative (WCI) and a national database maintained by The Climate Registry (TCR). DEQ is working closely with WCI partners and TCR to develop sector-based reporting protocols and emissions quantification methodologies. DEQ's goal is to align Oregon's reporting protocols and emissions quantification methodologies with regional protocols and methodologies. Once the regional effort is complete, DEQ will provide a reference list of reporting protocols and emissions quantification methodologies for public review prior to reporting in 2010.

DEQ's reporting rules and guidance may be modified following adoption of essential requirements for a model rule by member agencies of the Western Climate Initiative in Spring 2009.

Workshops Nov 2008 – Handout 1

ACDP permit categories that are required to report

Facilities with ACDPs are required to report if they are listed in (a) or (b), below (unless GHG emissions are less than 2,500 mtCO2e).

(a) Any owner or operator of a source required to obtain an Air Contaminant Discharge Permit, including those issued under OAR Chapter 340, Division 216 and that is referred to by one or more of the selected activities and sources listed in Table 1:

Table 1: ACDP Activities and Sources Required to Report Greenhouse Gas Emissions

Table Part	Category Code	Description
A	2	Natural Gas and Propane Fired Boilers (with or without #2 diesel oil back-up (a)) of 10 or more MMBTU but less than 30 MMBTU/hr heat input constructed after June 9, 1989
B	3	Ammonia Manufacturing
B	4	Animal Rendering and Animal Reduction Facilities
B	5	Asphalt Blowing Plants
B	6	Asphalt Felts or Coatings
B	7	Asphaltic Concrete Paving Plants both stationary and portable
B	8	Bakeries, Commercial over 10 tons of VOC emissions per year
B	11	Beet Sugar Manufacturing
B	12	Boilers and other Fuel Burning Equipment over 10 MMBTU/hr heat input, except exclusively Natural Gas and Propane fired units (with or without #2 diesel backup) under 30 MMBTU/hr heat input
B	13	Building paper and Buildingboard Mills
B	14	Calcium Carbide Manufacturing
B	16	Cement Manufacturing
B	18	Charcoal Manufacturing
B	21	Coffee Roasting (roasting 30 or more tons per year)
B	25	Electrical Power Generation from combustion (excluding units used exclusively as emergency generators)
B	30	Galvanizing and Pipe Coating (except galvanizing operations that use less than 100 tons of zinc/yr)
B	31	*** Gasoline Plants and Bulk Terminals subject to OAR 340, Division 232

Table Part	Category Code	Description
B	33	Glass and Glass Container Manufacturing
B	36	Gray iron and steel foundries, malleable iron foundries, steel investment foundries, steel foundries 100 or more tons/yr metal charged (not elsewhere identified)
B	37	Gypsum Products Manufacturing
B	38	Hardboard Manufacturing (including fiberboard)
B	39	Incinerators with two or more ton per day capacity
B	40	Lime Manufacturing
B	44	Marine Vessel Petroleum Loading and Unloading
B	48	Natural Gas and Oil Production and Processing and associated fuel burning equipment
B	49	Nitric Acid Manufacturing
B	50	Non-Ferrous Metal Foundries 100 or more tons/yr of metal charged
B	51	Organic or Inorganic Industrial Chemical Manufacturing and Distribution with ½ or more tons per year emissions of any one criteria pollutant (sources in this category with less than ½ ton/yr of each criteria pollutant are not required to have an ACDP)
B	53	Particleboard Manufacturing (including strandboard, flakeboard, and waferboard)
B	56	Petroleum Refining and Re-refining of Lubricating Oils and Greases including Asphalt Production by Distillation and the reprocessing of oils and/or solvents for fuels
B	57	Plywood Manufacturing and/or Veneer Drying
B	58	Prepared feeds for animals and fowl and associated grain elevators 10,000 or more tons per year throughput
B	59	Primary Smelting and/or Refining of Ferrous and Non-Ferrous Metals
B	60	Pulp, Paper and Paperboard Mills
B	62	Sawmills and/or Planing Mills 25,000 or more bd. ft./maximum 8 hr. finished product
B	63	Secondary Smelting and/or Refining of Ferrous and Non-Ferrous Metals
B	65	Sewage Treatment Facilities employing internal combustion for digester gasses
B	70	Synthetic Resin Manufacturing

(b) Any owner or operator of a source required to obtain an Air Contaminant Discharge Permit, including those issued under OAR Chapter 340, Division 216 that is

referred to by the activities and sources listed in Table 1 Part B number 75 of OAR Chapter 340, Division 216, and by the Standard Industrial Classification (SIC) codes in Table 2:

Table 2: Activities and Sources with SIC Codes Required to Report Greenhouse Gas Emissions

SIC	Description
2041	Flour and Other Grain Mill Products
2096	Potato Chips, Corn Chips, and Similar Snacks
2421	Sawmills and Planing Mills, General
2499	Wood Products, Not Elsewhere Classified
2752	Commercial Printing, Lithographic
2816	Inorganic Pigments
3086	Plastics foam products
3251	Brick and Structural Clay Tile
3296	Mineral Wool
3297	Nonclay Refactories
3559	Special Industry Machinery , Not Elsewhere Classified
3672	Printed Circuit Boards
3674	Semiconductors and Related Devices
4961	Steam and Air Conditioning Supply
5093	Scrap and Waste Materials
9711	National Security (NAICS 928110)

Websites

DEQ Greenhouse Gas/Climate Change website: http://www.deq.state.or.us/aq/climate/index.htm Click "Greenhouse Gas Reporting" in left menu.

Western Climate Initiative (WCI): http://www.westernclimateinitiative.org/

The Climate Registry (TCR): http://www.theclimateregistry.org/

TCR-General Reporting Protocol http://www.theclimateregistry.org/downloads/GRP.pdf

DEQ Regional Offices

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland and Gresham Offices 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-5305
Coos, Curry, and Western Douglas	Department of Environmental Quality Coos Bay Office 381 N Second Street Coos Bay, OR 97420-2325 Telephone: (541) 269-2721
Eastern Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 Stewart Ave., Suite 201 Medford, OR 97501 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 475 NE Bellevue, Suite #110 Bend, OR 97701 Telephone: (541) 388-6146
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063
Lane	Lane Regional Air Pollution Control Authority 1010 Main Street Springfield, OR 97477 Telephone: (541) 726-2514

Example detailed GHG emission calculations

Boiler, distillate fuel oil, throughput = 10,000 gallons

Heat content of fuel oil and emission factors are from TCR-GRP tables 12.1 and 12.9

The calculations below are done as follows:

Throughput	x	Conversion factor	x	Btu content of fuel	x	Emission factor	x	Conversion factor	x	Global Warming Potential (GWP)	=	Result in metric tons CO_2 equivalent (mtCO2e)

GHG and Throughput	Conversion Factor	Btu content of fuel	Emission Factor	Conversion Factor	GWP		mtCO2e
CO2							
10,000 gal	1 bbl	5.825 MMBtu	73.15 kg CO_2	1 mt	1 mtCO2e	=	102 mtCO2e
yr	42 gal	1 bbl	1 MMBtu	1,000 kg	mt CO2		yr
CH4							
10,000 gal	1 bbl	5.825 MMBtu	3 g CH_4	1 mt	21 mtCO2e	=	0.09 mtCO2e
yr	42 gal	1 bbl	1 MMBtu	1,000,000 g	mt CH4		yr
N2O							
10,000 gal	1 bbl	5.825 MMBtu	0.6 g N_2O	1 mt	310 mtCO2e	=	0.26 mtCO2e
yr	42 gal	1 bbl	1 MMBtu	1,000,000 g	mt N2O		yr

Fact Sheet

Implementation of Senate Bill 737: Addressing Priority Persistent Toxics

Background

The 2007 Oregon Legislature passed Senate Bill 737, which requires DEQ to consult with all interested parties by June 2009 to develop a list of priority persistent bioaccumulative toxics ("Priority Persistent Pollutant List") that have a documented effect on human health, wildlife and aquatic life.

By June 2010, DEQ must report to the Legislature on the list of priority persistent pollutants. In addition, DEQ must report on end-of-pipe (point), nonpoint and legacy sources of priority persistent pollutants "from existing data," and identify source reduction and control methods that can reduce discharges. This work began mid-2008 and will be accomplished over two years by two new positions. These positions are funded by a surcharge fee on the 52 largest municipal wastewater plants in Oregon.

SB 737 also requires Oregon's 52 large municipal wastewater treatment plants to develop plans by 2011 for reducing priority persistent pollutants through pollution prevention and toxics reduction. DEQ will request additional resources during the 2009 Legislative session to support SB 737 project work and associated Oregon Department of Justice costs for this program.

Surcharge

DEQ issued a notice of the surcharge to the 52 large municipal waste water treatment plants in July 2008, and will issue the second notice in July 2009. Depending on the amount of wastewater processed, each municipality will pay a total surcharge ranging from $6,976 to $20,926 over two years. DEQ hired one toxicologist and one project manager funded by this surcharge and began work in July 2008.

Persistent Pollutant Work Group

In order to develop the Priority Persistent Pollutant List, DEQ assembled a technical workgroup, representing expertise in various scientific sectors, to provide advice and comment. Members of the group will serve a 10-month term (August 2008-May 2009). The group will meet approximately every three to four weeks for about a half-day each meeting. While the meetings are open to the public, participation in the meeting is limited to work group members. The group met on August 12, September 3, and October 6, 2008. The group's next meeting will be November 8, 2008, from 9 a.m. to 2 p.m. at DEQ Headquarters in Portland.

Members of the work group include:

- Dr. Jeff Jenkins, Professor, Department of Environmental and Molecular Toxicology, Oregon State University
- Dr. David Stone, Assistant Professor, Department of Environmental and Molecular Toxicology, Oregon State University
- Dr. Charles Henny, Research Zoologist, US Geological Survey
- Dr. Taku Fuji, Senior Toxicologist/Sediment Quality Specialist, Kennedy Jenks Consultants
- Dr. Robert Gensemer, Senior Toxicologist, Paramatrix, Inc.
- Dr. William Fish, Associate Professor of Civil & Environmental Engineering and Environmental Sciences and Resources, Portland State University
- Dr. Joseph Rinella, Supervisory Hydrologist, US Geological Survey

State of Oregon
Department of Environmental Quality

Water Quality Program
811 SW 6th Avenue
Portland, OR 97204
Phone: (503) 229-5696
(800) 452-4011
Fax: (503) 229-5850
Contact: Jennifer Wigal
www.deq.state.or.us

Last Updated: 10/9/08
By: Cheryl Grabham
08-WQ-025

Communications

DEQ is maintaining a Web site containing information about the SB 737 project. Anyone interested in the project's progress can sign up online and receive e-mails as new information becomes available. Information posted on this Web site includes the project plan, meeting agendas and notes, and discussion documents. As part of the Priority Persistent Pollutant List development process, DEQ will conduct a public outreach effort, including an opportunity for public input, on the draft Priority Persistent Pollutant List (Spring 2009). DEQ will consider public comments when it prepares the final Priority Persistent Pollutant List, which it will present to the Legislature by June 1, 2009.

Developing the 2010 Legislative Report

To develop the Legislative Report (due June 1, 2010), DEQ will work directly with technical experts (including US Geological Survey, US Fish and Wildlife Service, universities, other agencies, experts, and groups) to identify, where possible, the likely point, nonpoint and legacy sources of priority persistent pollutants. To determine source reduction and control methods that can reduce discharges of these pollutants, DEQ will work directly with technical experts in each field. For example, DEQ will coordinate with technical experts to learn about options to reduce the inputs of priority persistent pollutants

- from agricultural and forest land uses into waterways,
- through water quality treatment technologies, and
- through urban green infrastructure implementation.

DEQ will also conduct a public outreach effort, including an opportunity for public input after it prepares its draft Legislative Report in Spring 2010.

More Information

A project website is located at:
http://www.deq.state.or.us/wq/SB737

Alternative Formats

Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or call toll-free in Oregon at 1-800-452-4011, ext. 5696.

				PBT PROFILER RESULTS											HUMAN HEALTH CRITERIA				RELEVANCE TO OREGON			
CAS#	Grp	Chemical Name	Number Source Lists	Half-life (water)	Half-life (soil)	Half-life (sed)	Half-life (air)	BCF	Fish Toxicity (mg/L)	Basis	"P" Score	"B" Score	"T" Score	Total Score	Non-Cancer	RfD (mg/kg/d)	EPA Cancer	IARC Cancer	Principal Use(s)	Present In Oregon?	Known or Suspected Source	Analytical Method Available?
CONSUMER-RELATED																						
6515-38-4	COS	3,5,6-trichloro-2-pyridinol	1	60	120	540	92	24	0.068	a	1	0	2	3					Urinary metabolite of chlorpyrifos			
25013-16-5	COS	Butylated hydroxyanisole (BHA)	2	37.5	75	337.5	0.297	35.27	0.046	a	1	0	2	3				2B	Food additive (antioxidant)			
128-37-0	COS	Butylated hydroxy toluene	1	38	75	340	0.88	600	0.011	a	1	0	2	3					Food additive (antioxidant)	(4), n/d		
298-46-4	COS	Carbamazepine	1	38	75	340	0.037	15	9.16	b	1	0	1	2	D				Anticonvulsant drug			
57-62-5	COS	Chlortetracycline	1	180	360	1600	0.067	3.2	8.48	a	2	0	1	3					Pharmaceutical			
57-88-5	COS	Cholesterol	2	60	120	540	0.071	270	5.00E-05	b	2	0	2	4					Biogenic sterol	④		
76-57-3	COS	Codeine	1	60	120	540	0.031	1.6	0.065	c	1	0	2	3					Pharmaceutical	④		
360-68-9	COS	Coprostanol	1	60	120	540	0.33	200	4.33E-05	b	2	0	2	4					Biogenic sterol	⑥		
106-46-7	COS	Dichlorobenzene, 1,4-	2	38	75	340	50	89	0.784	b	1	0	1	2				2B	Mothballs, Deodorants, Insecticides	④		
474-86-2	COS	Equilin	1	38	75	340	0.02	75	0.08	a	1	0	2	3					Horse estrogen	(4), n/d		
57-91-0	COS	Estradiol, 17a-	1	38	75	340	0.13	240	0.041	a	1	0	2	3					Biogenic sterol	(4), n/d		
1222-05-5	COS	Galaxolide [HHCB]	3	60	120	540	0.42	13000	0.01	b	2	2	2	6					Fragrance	①		
70-30-4	COS	Hexachlorophene	1	180	360	1600	7.5	4700	0.00162	a	2	1	2	5					Disinfectant			
72-33-3	COS	Mestranol	1	60	120	540	0.18	800	0.067	c	1	0	2	3	D				Synthetic estrogen	(4), n/d		
599-64-4	COS	Methylenediphenol, 4,4'- [4-Cumylphenol]	2	38	75	340	0.36	300	0.029	a	1	0	2	3					Detergent metabolite			
15323-35-0	COS	Musk indane	1	60	120	540	1	93	0.01	b	2	0	2	4					Fragrance			
81-14-1	COS	Musk ketone	1	60	120	540	12	60	0.004	c	1	0	2	3					Fragrance			
21145-77-7	COS	Musk tetralin [Acetyl-hexamethyl-tetrahydronaphthalene]	1	60	120	540	0.92	2200	0.015	b	2	1	2	5					Fragrance	⑥		
145-39-1	COS	Musk tibetene	1	60	120	540	11	1900	0.002	c	1	1	2	4					Fragrance			
81-15-2	COS	Musk xylene	1	180	360	1600	19	530	0.005	c	2	0	2	4					Fragrance			
25154-52-3	COS	Nonylphenol	1	15	30	140	0.31	540	0.005	a	1	0	2	3					Detergent metabolite			
104-40-5	COS	Nonylphenol, 4-	4	15	30	140	0.31	540	0.005	a	1	0	2	3					Detergent metabolite	④		
140-66-9	COS	Octylphenol, 4-tert-	3	38	75	340	0.38	2300	0.008	a	1	1	2	4					Detergent metabolite	⑥		
21255-69-6	COS	O-Desmethylangolensin	1	38	75	340	0.079	7.5	0.095	a	1	0	2	3					Phytoestrogen			
2062-78-4	COS	Pimozide	1	180	360	1600	0.11	14000	0.0111	d	2	2	2	6					Antipsychotic			
92-94-4	COS	Terphenyl, p-	1	38	75	340	1.8	8800	0.007	b	2	2	2	6					Laser dye, Sunscreen component	⑥		
1506-02-1	COS	Tonalide	2	60	120	540	0.92	2200	0.015	b	2	1	2	5					Fragrance			

				PBT PROFILER RESULTS											HUMAN HEALTH CRITERIA				RELEVANCE TO OREGON			
CAS#	Grp	Chemical Name	Number Source Lists	Half-life (water)	Half-life (soil)	Half-life (sed)	Half-life (air)	BCF	Fish Toxicity (mg/L)	Basis	"P" Score	"B" Score	"T" Score	Total Score	Non-Cancer	RfD (mg/kg/d)	EPA Cancer	IARC Cancer	Principal Use(s)	Present In Oregon?	Known or Suspected Source	Analytical Method Available?
3380-34-5	COS	Triclosan [2,4,4'-trichloro-2'-hydroxydiphenyl ether]	5	60	120	540	1	370	0.02	a	1	0	2	3					Disinfectant	④		
738-70-5	COS	Trimethoprim	1	60	120	540	0.079	3.2	0.016	e	1	0	2	3					Antibiotic for urinary tract infections			
DIOXINS																						
3268-87-9	DX1	1,2,3,4,6,7,8,9-OcCDD	2	180	360	1600	300	1500	0.000177	b	2	1	2	5						②		
35822-46-9	DX1	1,2,3,4,6,7,8-HpCDD	2	180	360	1600	120	1500	0.000164	b	2	1	2	5						②		
39227-28-6	DX1	1,2,3,4,7,8-HxCDD	2	180	360	1600	75	5200	0.000336	b	2	2	2	6						②		
57653-85-7	DX1	1,2,3,6,7,8-HxCDD	3	180	360	1600	50	1400	0.000148	b	2	1	2	5						②		
19408-74-3	DX1	1,2,3,7,8,9-HxCDD	2	180	360	1600	50	1400	0.000148	b	2	1	2	5						②		
40321-76-4	DX1	1,2,3,7,8-PeCDD	2	180	360	1600	33	26000	0.003	b	2	2	2	6						②		
1746-01-6	DX1	2,3,7,8-TCDD	4	180	360	1600	21	34000	0.002	b	2	2	2	6						②		
FURANS																						
39001-02-0	DX2	1,2,3,4,6,7,8,9-OcCDF	3	180	360	1600	1500	410	7.68E-05	b	2	0	2	4						②		
67562-39-4	DX2	1,2,3,4,6,7,8-HpCDF	3	180	360	1600	670	3500	0.000276	b	2	1	2	5						②		
55673-89-7	DX2	1,2,3,4,7,8,9-HpCDF	3	180	360	1600	670	3500	0.000276	b	2	1	2	5						②		
70648-26-9	DX2	1,2,3,4,7,8-HxCDF	3	180	360	1600	140	3600	0.000253	b	2	1	2	5								
57117-44-9	DX2	1,2,3,6,7,8-HxCDF	3	180	360	1600	96	3600	0.000253	b	2	1	2	5						②		
72918-21-9	DX2	1,2,3,7,8,9-HxCDF	3	180	360	1600	310	10000	0.0005	b	2	2	2	6						②		
57117-41-6	DX2	1,2,3,7,8-PeCDF	3	180	360	1600	140	34000	0.002	b	2	2	2	6						②		
57117-31-4	DX2	2,3,4,7,8-PeCDF	2	180	360	1600	140	34000	0.002	b	2	2	2	6						②		
51207-31-9	DX2	2,3,7,8-TCDF	3	180	360	1600	62	21000	0.003	b	2	2	2	6						②		
POLYCHLORINATED NAPHTHALENES																						
32241-08-0	DX3	Heptachloronaphthalene	1	180	360	1600	190	6100	0.000142	b	2	2	2	6					Insulation, Preservatives, Dyes			
1335-87-1	DX3	Hexachloronaphthalene	1	180	360	1600	88	240000	0.00132	b	2	2	2	6					Insulation, Preservatives, Dyes			
1321-64-8	DX3	Pentachloronaphthalene	1	180	360	1600	39	69000	0.004	b	2	2	2	6					Insulation, Preservatives, Dyes			
1335-88-2	DX3	Tetrachloronaphthalene	1	60	120	540	18	22000	0.014	b	2	2	2	6					Insulation, Preservatives, Dyes			
1321-65-9	DX3	Trichloronaphthalene	1	60	120	540	7.9	7100	0.044	b	1	2	2	5					Insulation, Preservatives, Dyes			
ENDOCRINE DISRUPTORS (suspected)																						
98-54-4	ED	Butylphenol, p-tert-	1	38	75	340	0.4	71	0.047	a	1	0	2	3					Intermediate for phenolic resins			

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CAS#	Grp	Chemical Name	Number Source Lists	Half-life (water)	Half-life (soil)	Half-life (sed)	Half-life (air)	BCF	Fish Toxicity (mg/L)	Basis	"P" Score	"B" Score	"T" Score	Total Score	Non-Cancer	RfD (mg/kg/d)	EPA Cancer	IARC Cancer	Principal Use(s)	Present In Oregon?	Known or Suspected Source	Analytical Method Available?
120-83-2	ED	Dichlorophenol, 2,4-	2	38	75	340	15	18	0.065	a	1	0	2	3		0.003			Intermediate in 2,4-D mfg			
56-53-1	ED	Diethylstilbestrol	1	38	75	340	0.0011	1600	0.014	a	1	1	2	4					Synthetic nonsteroidal estrogen			
50-28-2	ED	Estradiol, -17β	3	38	75	340	0.13	240	0.041	a	1	0	2	3					Hormone	(4), n/d		
57-63-6	ED	Ethynyl estradiol, 17a-	3	60	120	540	0.13	130	0.063	a	1	0	2	3					Hormone	(4), n/d		
319-85-7	ED	Hexachlorocyclohexane, beta-	1	180	360	1600	83	310	0.382	b	2	0	1	3					OC pesticide	②		
67747-09-5	ED	Prochloraz	1	180	360	1600	0.2	290	0.075	h	2	0	2	4					Cereal fungicide			
83-46-5	ED	Sitosterol, beta-	1	60	120	540	0.067	15	8.76E-06	b	2	0	2	4	D				Phytosteroid	☑		
19466-47-8	ED	Sitostanol, beta- (Stigmastanol)	2	60	120	540	0.31	12	7.49E-06	b	2	0	2	4					Phytosteroid	☑		
43121-43-3	ED	Triadimefon	1	60	120	540	0.96	27	5.999	b	1	0	1	2	D	0.03			Fungicide			
17924-92-4	ED	Zearalenone	1	38	75	340	0.035	110	0.075	a	1	0	2	3					Estrogenic mycotoxin			
FLAME RETARDANTS																						
26040-51-7	FLM	Di-(2-ethylhexyl)tetrabromophthalate [TBPH]	1	60	120	540	0.75	3.2	2.37E-07	c*	2	0	2	4					Flame retardant, Antioxidant			
5436-43-1	FLM	PBDE-047 [2,2',4,4'-Tetrabromodiphenyl ether]	3	180	360	1620.833	10.86667	32560	0.003	b	2	2	2	6		0.0001			Flame retardant, phased out 2004	⑧		
60348-60-9	FLM	PBDE-099 [2,2',4,4',5-Pentabromodiphenyl ether]	2	180	360	1620.833	19.45833	36880	0.003	b	2	2	2	6		0.0001			Flame retardant, phased out 2004	⑧		
189084-64-8	FLM	PBDE-100 [2,2',4,4',6-Pentabromodiphenyl ether]	2	—	—	—	—	—	—	—	—	—	—	—		0.0001			Flame retardant, phased out 2004	⑧		
101-55-3	FLM	Bromodiphenyl ether, 4-	3	38	75	340	3.1	1300	0.066	b	1	1	2	4					Flame retardant			
36355-01-8	FLM	Hexabromobiphenyl (HBBP)	2	180	360	1620.833	37.75	360.7	3.99E-05	b	2	1	2	5		0.00001	B2		Flame retardant			
25637-99-4	FLM	Hexabromocyclodecane	2	60	120	540	2.6	6200	0.000662	b	2	2	2	6					Flame retardant			
51936-55-1	FLM	Hexachlorocyclopentadienyl-dibromocyclooctane	1	180	360	1600	1.2	3600	0.0005	d*	2	1	2	5					Flame retardant			
59080-40-9	FLM	PBB-153 [2,2',4,4',5,5'-Hexabromobiphenyl]	1	180	360	1600	120	360	3.99E-05	b	2	0	2	4					Flame retardant			
32534-81-9	FLM	Pentabromodiphenyl ether	2	180	360	1600	29	8100	0.003	b	2	2	2	6					Flame retardant, foam, U.S. mfg ended 2004			
79-94-7	FLM	Tetrabromobisphenol A (TBBPA)	4	180	360	1600	5.4	14000	0.007	b	2	2	2	6					Flame retardant			
67733-57-7	FLM	Tetrabromodibenzofuran, 2,3,7,8-	1	180	360	1600	83	27000	0.0012	b	2	2	2	6					Brominated flame retardant breakdown			
50585-41-6	FLM	Tetrabromodibenzo-p-dioxin, 2,3,7,8-	1	180	360	1600	24	3800	0.000351	b	2	2	2	6					Brominated flame retardant breakdown			
40088-47-9	FLM	Tetrabromodiphenyl ether	1	180	360	1600	11	32000	0.003	b	2	2	2	6					Flame retardant			
118-79-6	FLM	Tribromophenol, 2,4,6-	1	60	120	540	34	120	0.044	a	1	0	2	3					Flame retardant			
13674-87-8	FLM	Tri (di-chloriso-propyl) phosphate	2	180	360	1600	0.88	21	0.36	f	2	0	1	3					Flame retardant	(4), n/d		
INDUSTRIAL CHEMICALS																						

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CAS#	Grp	Chemical Name	Number Source Lists	Half-life (water)	Half-life (soil)	Half-life (sed)	Half-life (air)	BCF	Fish Toxicity (mg/L)	Basis	"P" Score	"B" Score	"T" Score	Total Score	Non-Cancer	RfD (mg/kg/d)	EPA Cancer	IARC Cancer	Principal Use(s)	Present In Oregon?	Known or Suspected Source	Analytical Method Available?
128-39-2	IND	2,6-di-tert-butylphenol	1	38	75	340	0.32	430	0.012	a	1	0	2	3					UV stabilizer, Fuel antioxidizer			
103-23-1	IND	Bis (2-ethylhexyl) adipate	1	8.7	17	78	0.62	61	0.048	f	1	0	2	3					Hydraulic fluid, Aircraft lubricant			
434-90-2	IND	Decafluorobiphenyl	1	180	360	1600	120	23000	0.017	b	2	2	2	6					Organic synthesis	①		
96-12-8	IND	Dibromo-3-chloropropane, 1,2-	1	38	75	340	37	38	3.299	b	1	0	1	2	D	0.0002	B2		Flame retardant precursor, Pesticide			
29082-74-4	IND	Octachlorostyrene	6	180	360	1600	14	15000	0.0009	d*	2	2	2	6					Unused by-product of industrial processes	②		
1825-21-4	IND	Pentachloroanisole (2,3,4,5,6-Pentachloroanisole)	1	180	360	1600	15	3100	0.027	b	2	1	2	5					Wood preservative			
335-76-2	IND	Perfluorodecanoic acid (PFDA)	1	180	360	1600	31	10	0.00187	b*	2	0	2	4					Stain-, greaseproof coating breakdown	⑩		
307-55-1	IND	Perfluorododecanoic acid (PFDoDA)	1	180	360	1600	31	3.2	4.67E-05	b*	2	0	2	4					Stain-, greaseproof coating breakdown	⑩		
754-91-6	IND	Perfluorooctane sulfonamide (PFOSA)	1	180	360	1600	180	10000	0.000666	b	2	2	2	6					Legacy coating, not used since 200	⑩		
2058-94-8	IND	Perfluoroundecanoic acid (PFUnDA)	1	180	360	1600	31	3.2	0.000293	b*	2	0	2	4					Stain-, greaseproof coating breakdown	⑩		
95-94-3	IND	Tetrachlorobenzene, 1,2,3,5-	4	60	120	540	200	750	0.104	b	1	0	1	2		0.0003			Industrial synthesis			
829-26-5	IND	Trimethylnaphthalene, 2,3,6-	1	38	75	340	0.13	880	0.069	b	1	0	2	3					Industrial synthesis	⑥		
732-26-3	IND	Tris-(1,1-dimethylethyl)phenol, 2,4,6- [Alkofen B]	2	60	120	540	1	3300	0.005	a	2	1	2	5					Stabilizer for polymers			
ORGANOMETALLICS																						
22967-92-6	OM	Methylmercury (1+ ion)	4	37.5	75	337.5	1.3125	100	964.05	a	1	0	0	1					Natural metabolic by-product	⑦		
688-73-3	OM	Tributyltin	3	8.666667	17.33333	77.91667	0.250833	16690	0.000616	b	1	2	2	5					Marine anti-fouling paint			
POLYCYCLIC AROMATIC HYDROCARBONS																						
56-55-3	PAH	Benzo(a)anthracene {7,16}	1	60	120	540	0.32	5400	0.012	b	2	2	2	6					Ubiquitous combustion by-product	⑥		
50-32-8	PAH	Benzo(a)pyrene {7,16}	3	60	120	540	0.32	10000	0.006	b	2	2	2	6					Ubiquitous combustion by-product	⑥		
192-97-2	PAH	Benzo[e]pyrene	1	60	120	540	0.32	18000	0.003	b	2	2	2	6					Ubiquitous combustion by-product	⑥		
205-99-2	PAH	Benzo(b)fluoranthene {7,16}	2	60	120	540	0.88	5600	0.012	b	2	2	2	6					Ubiquitous combustion by-product	⑥		
191-24-2	PAH	Benzo(g,h,i)perylene {16}	6	60	120	540	0.18	25000	0.002	b	2	2	2	6					Ubiquitous combustion by-product	⑥		
205-82-3	PAH	Benzo(j)fluoranthene	2	60	120	540	0.3	10000	0.006	b	2	2	2	6					Ubiquitous combustion by-product			
207-08-9	PAH	Benzo(k)fluoranthene {7,16}	2	60	120	540	0.3	10000	0.006	b	2	2	2	6					Ubiquitous combustion by-product	⑥		
218-01-9	PAH	Chrysene [benzo(a)phenanthrene] {7,16}	2	60	120	540	0.32	5900	0.011	b	2	2	2	6					Ubiquitous combustion by-product	⑥		
5385-75-1	PAH	Dibenzo(a,e)fluoranthene	1	180	360	1600	0.25	26000	0.000735	b	2	2	2	6					Ubiquitous combustion by-product			
192-65-4	PAH	Dibenzo(a,e)pyrene	2	180	360	1600	0.32	6900	0.000311	b	2	2	2	6					Ubiquitous combustion by-product			
226-36-8	PAH	Dibenzo(a,h)acridine	2	60	120	540	0.32	5200	0.015	b	1	2	2	5					Ubiquitous combustion by-product			

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53-70-3	PAH	Dibenzo(a,h)anthracene {7,16}	2	60	120	540	0.32	22000	0.003	b	2	2	2	6					Ubiquitous combustion by-product			
189-55-9	PAH	Dibenzo(a,i)pyrene	2	180	360	1600	0.32	26000	0.000736	b	2	2	2	6					Ubiquitous combustion by-product			
224-42-0	PAH	Dibenzo(a,j)acridine	2	60	120	540	0.58	5200	0.015	b	2	2	2	6					Ubiquitous combustion by-product			
194-59-2	PAH	Dibenzo(c,g)carazole, 7H-	2	60	120	540	0.58	17000	0.004	b	2	2	2	6					Ubiquitous combustion by-product			
191-30-0	PAH	Dibenzo(def,p)pyrene	1	180	360	1600	0.32	6900	0.000311	b	2	2	2	6					Ubiquitous combustion by-product			
57-97-6	PAH	Dimethylbenz(a)anthracene, 7,12-	1	180	360	1600	0.1	5800	0.012	b	2	2	2	6					Ubiquitous combustion by-product			
206-44-0	PAH	Fluoranthene [Benzo(j,k)fluorene] {16}	8	60	120	540	1.5	1900	0.034	b	1	1	2	4					Ubiquitous combustion by-product	①		
193-39-5	PAH	Indeno(1,2,3-cd)pyrene	2	60	120	540	0.25	29000	0.002	b	2	2	2	6					Ubiquitous combustion by-product			
56-49-5	PAH	Methylchlolanthrene, 3-	2	180	360	1600	0.079	18000	0.004	b	2	2	2	6					Ubiquitous combustion by-product			
3697-24-3	PAH	Methylchrysene, 5-	1	60	120	540	0.12	9400	0.007	b	2	2	2	6					Ubiquitous combustion by-product			
832-69-9	PAH	Methylphenanthrene, 1-	1	38	75	340	0.46	1600	0.038	b	1	1	2	4					Ubiquitous combustion by-product	⑤		
2381-21-7	PAH	Methylpyrene, 1-	1	60	120	540	0.12	3300	0.019	b	1	1	2	4					Ubiquitous combustion by-product	⑥		
1730-37-6	PAH	Methylfluorene, 1-	1	38	75	340	1	1300	0.045	b	1	1	2	4					Ubiquitous combustion by-product	⑥		
91-20-3	PAH	Naphthalene	7	38	75	340	0.75	69	0.905	b	1	0	1	2		0.02		2B		④		
5522-43-0	PAH	Nitropyrene, 1-	1	180	360	1600	2.6	1600	0.051	b	2	1	2	5					Ubiquitous combustion by-product			
198-55-0	PAH	Perylene	1	60	120	540	0.32	13000	0.005	b	2	2	2	6					Ubiquitous combustion by-product	⑥		
129-00-0	PAH	Pyrene {16}	8	60	120	540	0.32	1100	0.08	b	1	1	2	4					Ubiquitous combustion by-product	①		
POLYCHLORINATED BIPHENYLS																						
12674-11-2	PCB	Aroclor 1016	1	60	120	540	15	18000	0.017	b	1	2	2	5						⑥		
53742-07-7	PCB	Nonachlorobiphenyl	1	180	360	1600	500	310	2.72E-05	b	2	0	2	4						⑤		
34883-43-7	PCB	PCB-008 [2,4'-dichlorobiphenyl]	1	38	75	340	9.2	6900	0.044	b	1	2	2	5						③		
37680-65-2	PCB	PCB-018 [2,2',5-trichlorobiphenyl]	1	60	120	540	15	16000	0.02	b	1	2	2	5						③		
7012-37-5	PCB	PCB-028 [2,4,4'-trichlorobiphenyl] {model}	2	60	120	540	15	18000	0.017	b	1	2	2	5								
41464-39-5	PCB	PCB-044 [2,2',3,5'-tetrachlorobiphenyl] {model}	1	180	360	1600	20	25000	0.014	b	2	2	2	6								
35693-99-3	PCB	PCB-052 [2,2',5,5'-tetrachlorobiphenyl] {model}	2	180	360	1600	22	41000	0.008	b	2	2	2	6								
32598-10-0	PCB	PCB-066 [2,3',4,4'-tetrachlorobiphenyl]	1	180	360	1600	21	60000	0.005	b	2	2	2	6						③		
32598-11-1	PCB	PCB-070 [2,3,4,5-Tetrachlorobiphenyl]	1	180	360	1600	22	52000	0.006	b	2	2	2	6								
32598-13-3	PCB	PCB-077 [3,3',4,4'-tetrachlorobiphenyl] {tox}	5	180	360	1600	22	100000	0.003	b	2	2	2	6						②③		

				PBT PROFILER RESULTS											HUMAN HEALTH CRITERIA				RELEVANCE TO OREGON			
CAS#	Grp	Chemical Name	Number Source Lists	Half-life (water)	Half-life (soil)	Half-life (sed)	Half-life (air)	BCF	Fish Toxicity (mg/L)	Basis	"P" Score	"B" Score	"T" Score	Total Score	Non-Cancer	RfD (mg/kg/d)	EPA Cancer	IARC Cancer	Principal Use(s)	Present in Oregon?	Known or Suspected Source	Analytical Method Available?
70362-50-4	PCB	PCB-081 (3,4,4',5-TCB) {tox}	1	180	360	1600	21	63000	0.005	b	2	2	2	6						②		
38380-01-7	PCB	PCB-099	1	180	360	1600	40	140000	0.000914	b	2	2	2	6						②		
37680-73-2	PCB	PCB-101 [2,2',4,5,5'-pentachlorobiphenyl] {model}	2	180	360	1600	50	140000	0.002	b	2	2	2	6						③		
32598-14-4	PCB	PCB-105 [2,3,3',4,4'-pentachlorobiphenyl] {tox}	5	180	360	1600	50	140000	0.002	b	2	2	2	6						②		
38380-03-9	PCB	PCB-110 [2,3,3',4',6-pentachlorobiphenyl]	1	180	360	1600	27	51000	0.007	b	2	2	2	6						③		
74472-37-0	PCB	PCB-114 [2,3,4,4',5-pentachlorobiphenyl] {tox}	3	180	360	1600	40	200000	0.00145	b	2	2	2	6								
31508-00-6	PCB	PCB-118 [2,3',4,4',5-pentachlorobiphenyl] {model,tox}	5	180	360	1600	50	180000	0.00109	b	2	2	2	6						②③		
65510-44-3	PCB	PCB-123 [2',3,4,4',5-pentachlorobiphenyl] {tox}	2	180	360	1600	40	200000	0.00145	b	2	2	2	6								
57465-28-8	PCB	PCB-126 [3,3',4,4',5-pentachlorobiphenyl] {tox}	3	180	360	1600	34	200000	0.00145	b	2	2	2	6						②③		
38380-07-3	PCB	PCB-128 [2,2',3,3',4,4'-hexachlorobiphenyl]	2	180	360	1600	98	100000	0.000827	b	2	2	2	6						②③		
35065-28-2	PCB	PCB-138 [2,2',3,4,4',5'-hexachlorobiphenyl] {model}	2	180	360	1600	96	67000	0.000638	b	2	2	2	6						②		
35065-27-1	PCB	PCB-153 [2,2',4,4',5,5'-hexachlorobiphenyl] {model}	2	180	360	1600	96	25000	0.000343	b	2	2	2	6						②③		
38380-08-4	PCB	PCB-156 [2,3,3',4,4',5-hexachlorobiphenyl] {tox}	4	180	360	1600	75	40000	0.000463	b	2	2	2	6						③		
69782-90-7	PCB	PCB-157 [2,3,3',4,4',5'-hexachlorobiphenyl] {tox}	3	180	360	1600	67	38000	0.000445	b	2	2	2	6						③		
52663-72-6	PCB	PCB-167 [2,3',4,4',5,5'-hexachlorobiphenyl] {tox}	3	180	360	1600	67	56000	0.000565	b	2	2	2	6						③		
32774-16-6	PCB	PCB-169 [3,3',4,4',5,5'-hexachlorobiphenyl] {tox}	3	180	360	1600	67	4900	0.000677	b	2	2	2	6						②③		
35065-30-6	PCB	PCB-170 [2,2',3,3',4,4',5-heptachlorobiphenyl]	2	180	360	1600	150	4900	0.000132	b	2	1	2	5						③		
35065-29-3	PCB	PCB-180 [2,2',3,4,4',5,5'-heptachlorobiphenyl] {model}	2	180	360	1600	150	4900	0.000132	b	2	1	2	5						②		
52663-69-1	PCB	PCB-183	1	180	360	1600	140	4900	0.000132	b	2	1	2	5						②		
52663-68-0	PCB	PCB-187 [2,2',3,4',5,5',6-heptachlorobiphenyl] {model}	2	180	360	1600	150	4900	0.000132	b	2	1	2	5						②		
39635-31-9	PCB	PCB-189 [2,3,3',4,4',5,5'-heptachlorobiphenyl] {tox}	3	180	360	1600	110	4900	0.000132	b	2	1	2	5						③		
52663-78-2	PCB	PCB-195 [2,2',3,3',4,4',5,6-octachlorobiphenyl]	1	180	360	1600	260	640	4.00E-05	b	2	0	2	4						③		
40186-72-9	PCB	PCB-206 [2,2',3,3',4,4',5,5',6-nonachlorobiphenyl]	1	180	360	1600	67	38000	2.72E-05	b	2	2	2	6						③		
52663-79-3	PCB	PCB-207	1	180	360	1600	370	84	1.17E-05	b	2	0	2	4						⑥		
2051-24-3	PCB	PCB-209 [2,2'3,3',4,4',5,5',6,6'-decachlorobiphenyl]	1	180	360	1600	880	4900	0.000167	b	2	1	2	5						③		
PESTICIDES & HERBICIDES																						
94-82-6	PST	2,4-DB	2	38	75	340	1.1	1	11.099	b	1	0	0	2	D	0.008			Chlorophenoxy acid herbicide	⑥		
1570-64-5	PST	4-Chloro-2-methylphenol	1	38	75	340	1.3	21	0.076	a	1	0	2	3					Industrial intermediate, pesticide production	(6), n/d		

				PBT PROFILER RESULTS											HUMAN HEALTH CRITERIA				RELEVANCE TO OREGON			
CAS#	Grp	Chemical Name	Number Source Lists	Half-life (water)	Half-life (soil)	Half-life (sed)	Half-life (air)	BCF	Fish Toxicity (mg/L)	Basis	"P" Score	"B" Score	"T" Score	Total Score	Non-Cancer	RfD (mg/kg/d)	EPA Cancer	IARC Cancer	Principal Use(s)	Present In Oregon?	Known or Suspected Source	Analytical Method Available?
59-50-7	PST	4-Chloro-3-methylphenol	1	38	75	340	0.62	49	0.055	a	1	0	2	3					Fungicide, Preservative	①		
34256-82-1	PST	Acetochlor	1	60	120	540	0.32	43	0.045	c	1	0	2	3					Chloroacetanilide herbicide	①		
15972-60-8	PST	Alachlor	1	60	120	540	0.35	100	0.026	c	1	0	2	3					Chloroacetanilide herbicide	①		
309-00-2	PST	Aldrin	7	180	360	1600	0.046	20000	0.003	i	2	2	2	6					OC insecticide	(6), n/d		
1861-40-1	PST	Benfluralin	1	180	360	1600	0.71	2400	0.0019	g	2	1	2	5					Herbicide, turf grass	①		
1689-84-5	PST	Bromoxynil	1	38	75	340	75	32	0.009	g	1	0	2	3					Herbicide, weed control	①		
57-74-9	PST	Chlordane	8	180	360	1600	3.2	12000	0.014	c	2	2	2	6					OC pesticide	②		
5103-71-9	PST	Chlordane, cis-	2	180	360	1600	3.2	12000	0.074	f	2	2	2	6					OC pesticide	②		
12789-03-6	PST	Chlordane, technical	2	180	360	1600	3.2	12000	0.25	f	2	2	1	5					OC pesticide	②		
5103-74-2	PST	Chlordane, trans-	2	180	360	1600	3.2	12000	0.25	f	2	2	1	5					OC pesticide	②		
143-50-0	PST	Chlordecone (Kepone)	3	180	360	1600	180	2900	0.051	b	2	2	2	6					Insecticide and fungicide, banned 1975	(9), n/d		
1897-45-6	PST	Chlorothalonil	2	180	360	1600	2600	45	0.003	g	2	0	2	4					Fungicide	(6), n/d		
2921-88-2	PST	Chlorpyrifos	4	180	360	1600	0.18	1300	0.00057	g	2	2	2	6					OP insecticide	①		
1134-23-2	PST	Cycloate	1	38	75	340	0.48	190	0.476	b	1	0	1	2	D				Thiocarbamate herbicide	①		
52315-07-8	PST	Cypermethrin	1	180	360	1600	0.75	210	0.011	c	2	1	2	5					Insecticide	(6), n/d		
53-19-0	PST	DDD, 2,4'- [Mitotane]	2	180	360	1600	3.7	6600	0.013	b	2	2	2	6					Adrenocortical carcinoma drug	(6), n/d		
72-54-8	PST	DDD, 4,4'-	3	180	360	1600	3.7	6600	0.01	b	2	2	2	6					OC pesticide, DDT metabolite	②		
3424-82-6	PST	DDE, 2,4'-	2	180	360	1600	1.1	8300	0.0014	d*	2	2	2	6					DDT metabolite	(6), n/d		
72-55-9	PST	DDE, 4,4'-	10	180	360	1600	1.1	20000	0.005	d*	2	2	2	6					OC pesticide	①②		
789-02-6	PST	DDT, 2,4'-	3	180	360	1600	4.6	34000	0.0032	d*	2	2	2	6					OC pesticide	(6), n/d		
50-29-3	PST	DDT, 4,4'-	9	180	360	1600	4.6	42000	0.0025	d*	2	2	2	6					OC pesticide	②		
333-41-5	PST	Diazinon	6	38	75	340	0.17	170	0.00055	g	1	0	2	3					OP pesticide	①		
962-58-3	PST	Diazinon-oxon	1	38	75	340	0.37	1.3	0.0022	h	1	0	2	3					Diazinon breakdown product	⑦		
583-78-8	PST	Dichlorophenol, 2,5-	1	38	75	340	2.3	18	0.065	a	1	0	2	3					Pest Repellant, Disinfectant			
115-32-2	PST	Dicofol	3	180	360	1600	4.6	1500	0.0053	h	2	1	2	5					OC pesticide, Miticide	①		
62-73-7	PST	Dichlorvos	1	38	75	340	1.7	0.45	0.012	h	1	0	2	3					OP pesticide	⑦		
60-57-1	PST	Dieldrin	11	180	360	1600	1.8	2000	0.0035	d	2	1	2	5					OC pesticide, banned in 1987	②		

				PBT PROFILER RESULTS											HUMAN HEALTH CRITERIA				RELEVANCE TO OREGON			
CAS#	Grp	Chemical Name	Number Source Lists	Half-life (water)	Half-life (soil)	Half-life (sed)	Half-life (air)	BCF	Fish Toxicity (mg/L)	Basis	"P" Score	"B" Score	"T" Score	Total Score	Non-Cancer	RfD (mg/kg/d)	EPA Cancer	IARC Cancer	Principal Use(s)	Present In Oregon?	Known or Suspected Source	Analytical Method Available?
88-85-7	PST	Dinoseb	2	38	75	340	4	110	0.043	c	1	0	2	3					Phenolic herbicide	①		
298-04-4	PST	Disulfoton	1	38	75	340	0.12	250	0.039	g	1	0	2	3					OP insecticide	①		
330-54-1	PST	Diuron	3	38	75	340	1.5	23	0.026	g	1	0	2	3		0.002			Urea herbicide	⑥		
115-29-7	PST	Endosulfan	2	180	360	1600	2	180	0.000051	i	2	0	2	4					OC insecticide	(9), n/d		
1031-07-8	PST	Endosulfan sulfate	2	180	360	1600	2	130	1.039	c	2	0	1	3					Endosulfan breakdown product	①		
959-98-8	PST	Endosulfan, alpha-	5	180	360	1600	2	180	0.000051	i	2	0	2	4					Endosulfan isomer	①		
33213-65-9	PST	Endosulfan, beta-	4	180	360	1600	2	180	0.000036	i	2	0	2	4					Endosulfan isomer	①		
72-20-8	PST	Endrin	5	180	360	1600	1.8	2000	0.0035	d	2	1	2	5					Insecticide, for cotton	⑨		
55283-68-6	PST	Ethalfluralin	1	180	360	1600	0.19	1700	0.003	c	2	1	2	5					Herbicide	①		
22224-92-6	PST	Fenamiphos	1	38	75	340	0.21	61	1.692	c	1	0	1	2		0.00025			Pesticide	①		
120068-37-3	PST	Fipronil	1	180	360	1600	0.17	240	0.042	c	2	0	2	4					Insecticide	①		
944-22-9	PST	Fonofos	1	38	75	340	0.19	220	0.355	c	1	0	1	2		0.002			OTP insecticide	①		
76-44-8	PST	Heptachlor	11	180	360	1600	0.046	9800	0.135	c	2	2	1	5					OC pesticide	⑨		
1024-57-3	PST	Heptachlor epoxide	4	180	360	1600	3.1	1400	1.90E-05	i	2	1	2	5					OC pesticide	②		
118-74-1	PST	Hexachlorobenzene	10	180	360	1600	58	5200	0.015	b	2	2	2	6					OC pesticide	②		
319-84-6	PST	Hexachlorocyclohexane, alpha-	1	180	360	1600	83	310	0.332	b	2	0	1	3					OC pesticide	①		
58-89-9	PST	Hexachlorocyclohexane, gamma- (Lindane)	4	180	360	1600	83	310	0.0017	g	2	1	2	5					OC pesticide	②		
465-73-6	PST	Isodrin	3	180	360	1600	0.046	20000	0.0006	h	2	2	2	6					Insecticide	①		
330-55-2	PST	Linuron	3	60	120	540	1.5	58	0.042	g	1	0	2	3	D	0.002			Urea herbicide	①		
72-43-5	PST	Methoxychlor	6	180	360	1600	0.3	1600	0.0964	d	2	1	2	5					Insecticide	(9), n/d		
298-00-0	PST	Methyl parathion	3	38	75	340	0.27	32	0.08	g	1	0	2	3					OP insecticide	⑤		
86-50-0	PST	Methylazinphos [Azinphos methyl]	3	38	75	340	0.1	26	0.0036	g	1	0	2	3					OP insecticide	①		
51218-45-2	PST	Metolachlor	2	60	120	540	0.29	34	0.054	g	1	0	2	3					Chloroacetanilide herbicide	⑥		
2385-85-5	PST	Mirex	6	180	360	1600	180	36000	0.003	b	2	2	2	6					OC pesticide	②		
2212-67-1	PST	Molinate	1	38	75	340	0.5	59	0.21	g	1	0	1	2	D	0.002			Pesticide	①		
88671-89-0	PST	Myclobutanil	2	38	75	340	2.3	37	4.195	b	1	0	1	2	D	0.025			Fungicide	⑥		
5103-73-1	PST	Nonachlor, cis-	2	180	360	1600	3.2	15000	0.0097	d*	2	2	2	6					OC pesticide, chlordane-related	②		

				PBT PROFILER RESULTS											HUMAN HEALTH CRITERIA				RELEVANCE TO OREGON			
CAS#	Grp	Chemical Name	Number Source Lists	Half-life (water)	Half-life (soil)	Half-life (sed)	Half-life (air)	BCF	Fish Toxicity (mg/L)	Basis	"P" Score	"B" Score	"T" Score	Total Score	Non-Cancer	RfD (mg/kg/d)	EPA Cancer	IARC Cancer	Principal Use(s)	Present In Oregon?	Known or Suspected Source	Analytical Method Available?
39765-80-5	PST	Nonachlor, trans-	2	180	360	1600	3.2	15000	0.0097	d*	2	2	2	6					OC pesticide, chlordane-related	②		
27314-13-2	PST	Norflurazon	2	60	120	540	1.3	12	0.088	c	1	0	2	3					Pyridazinone herbicide, grasses	①		
27304-13-8	PST	Oxychlordane, single isomer	2	180	360	1600	3.3	3300	0.0003	h	2	1	2	5					OC pesticide, chlordane-related	②		
42874-03-3	PST	Oxyfluorfen	2	180	360	1600	1.4	880	0.038	g	2	0	2	4					Herbicide, weeds	①		
40487-42-1	PST	Pendimethalin	6	60	120	540	0.54	1900	0.0063	g	1	1	2	4					Herbicide, crabgrass germination	①		
608-93-5	PST	Pentachlorobenzene	9	180	360	1600	260	1900	0.042	b	2	1	2	5					Fungicide precursor	②		
87-86-5	PST	Pentachlorophenol (PCP)	7	180	360	1600	29	700	0.013	a	2	0	2	4					OC pesticide	⑤		
82-68-8	PST	Pentachloronitrobenzene	3	180	360	1600	2200	750	0.142	b	2	0	1	3					Fungicide			
52645-53-1	PST	Permethrin	2	60	120	540	0.71	450	0.004	c	2	0	2	4					Pyrethroid pesticide	(9), n/d		
61949-76-6	PST	Permethrin, cis-	1	60	120	540	0.71	450	0.0003	g	2	0	2	4					Insecticide, Miticide	(9), n/d		
61949-77-7	PST	Permethrin, trans-	1	60	120	540	0.71	450	0.0003	g	2	0	2	4					Insecticide, Miticide	(9), n/d		
1918-16-7	PST	Propachlor	1	38	75	340	0.75	9.5	0.089	b	1	0	2	3					Insecticide	①		
2312-35-8	PST	Propargite	1	60	120	540	0.27	1400	0.016	g	1	1	2	4					Insecticide	①		
114-26-1	PST	Propoxur	1	38	75	340	0.5	3	30.416	c	1	0	0	1		0.004			Carbamate insecticide	⑥		
13071-79-9	PST	Terbufos	1	38	75	340	0.057	560	0.00077	g	1	0	2	3					OP insecticide (corn)	⑥		
8001-35-2	PST	Toxaphene	8	180	360	1600	7.1	5600	0.02	b	2	2	2	6					Insecticide, banned in U.S.	(9), n/d		
2303-17-5	PST	Triallate	1	60	120	540	0.5	700	0.038	g	1	0	2	3					Herbicide, grass weeds	①		
95-95-4	PST	Trichlorophenol, 2,4,5-	4	60	120	540	7.5	58	0.04	a	1	0	2	3					OC pesticide			
88-06-2	PST	Trichlorophenol, 2,4,6-	1	60	120	540	26	55	0.041	a	1	0	2	3					OC pesticide			
1582-09-8	PST	Trifluralin	6	180	360	1600	0.67	2600	0.00114	g	2	1	2	5					Herbicide	⑥		
PHTHALATE ESTERS																						
84-61-7	PTH	Dicyclohexyl phthalate (DCP)	1	38	75	340	0.67	12000	0.006	c	2	2	2	6					Plasticizer			
28553-12-0	PTH	Di-iso-nonyl phthalate (DINP)	1	38	75	340	0.67	3.2	0.14	j	2	0	1	3					Plasticizer, mainly vinyl toys			
84-75-3	PTH	Dihexyl phthalate (DHP)	1	8.7	17	78	1.1	1100	0.03	j	1	1	2	4					Plasticizer			
26761-40-0	PTH	Diisodecyl phthalate (DIDP)	1	38	75	340	0.62	3.2	0.14	j	2	0	1	3					General purpose plasticizer			
		count	235				no tox estimate		0										presence uncertain	74		

				PBT PROFILER RESULTS											HUMAN HEALTH CRITERIA				RELEVANCE TO OREGON			
CAS#	Grp	Chemical Name	Number Source Lists	Half-life (water)	Half-life (soil)	Half-life (sed)	Half-life (air)	BCF	Fish Toxicity (mg/L)	Basis	"P" Score	"B" Score	"T" Score	Total Score	Non-Cancer	RfD (mg/kg/d)	EPA Cancer	IARC Cancer	Principal Use(s)	Present In Oregon?	Known or Suspected Source	Analytical Method Available?
* BASIS FOR PRESENCE IN OREGON							* BASIS FOR FISH TOXICITY VALUES															
①	USGS NAWQA sampling, Willamette River Basin, 1998-2006						(a)	U.S. EPA ECOSAR(tm) program, 90-day chronic value for fish														
②	Wholebody fish samples, Willamette River system, 2001 (Henny et al., 2008)						(b)	U.S. EPA ECOSAR(tm) program, 30-day chronic value for fish														
③	USEPA pilot survey of rural soils (EPA/600/R-05/048F), Willamette River Basin, 2007						(c)	U.S. EPA ECOSAR(tm) program, lowest chronic value for fish														
④	USGS water quality data, Willamette River, 1999-2000 (Barnes et al., 2002)						(d)	U.S. EPA ECOSAR(tm) program, 14-day LC50/10 for fish														
⑤	Oregon TRI, June 2008						(e)	Choi et al. (2008) *Environ Tox Chem* 27(3): 711-719.														
⑥	USGS National Water Information System, water quality data for Oregon, 2000-2007						(f)	Kolpin et al. (2002) *Environ Sci Technol* 36: 1202-1211, lowest LC50/10.														
⑦	USGS Clackamas River, Scientific Investigations Report 2008–5027, 2008						(g)	U.S. EPA, Office of Pesticide Programs, Aquatic Life Benchmark table, chronic value														
⑧	Found in osprey eggs along the Willamette River (Rm 61-157), C. Henny personal communication.						(h)	PAN Pesticides database, lowest mean LC50/10														
⑨	Pesticides in Oregon Surface Water, 1968-2004 (Jenkins & Trevathan, *pers. comm.*)						(i)	U.S. EPA Mid-Atlantic Risk Assessment, Freshwater Screening Benchmarks, 2006 (http://www.epa.gov/reg3hwmd/risk/eco/btag/sbv/fw/screenbench.htm)														
⑩	Suspected per Lau et al. (2007) *Toxicol Sci* 99(2): 366-394.						(j)	Staples et al. (1997) *Environ Tox Chem* 16(5): 875-891.														
☑	Technical memoranda or other evidence of presence in Oregon.						*	Chemical may not be soluble enough to measure this predicted effect.														
n/d	Analyzed for but not detected																					

FACT SHEET
FINAL REVISIONS TO THE
NATIONAL AMBIENT AIR QUALITY STANDARDS FOR LEAD

SUMMARY OF ACTION

- On October 15, 2008, EPA substantially strengthened the national ambient air quality standards (NAAQS) for lead. The revised standards are 10 times tighter than the previous standards and will improve health protection for at-risk groups, especially children.

- EPA has revised the level of the primary (health-based) standard from 1.5 micrograms per cubic meter ($\mu g/m^3$), to 0.15 $\mu g/m^3$, measured as total suspended particles (TSP). EPA has revised the secondary (welfare-based) standard to be identical in all respects to the primary standard.

- Scientific evidence about lead and health has expanded dramatically since EPA issued the initial standard of 1.5 $\mu g/m^3$in 1978. More than 6,000 new studies on lead health effects, environmental effects and lead in the air have been published since 1990. Evidence from health studies shows that adverse effects occur at much lower levels of lead in blood than previously thought.

- Children are particularly vulnerable to the effects of lead. Exposures to low levels of lead early in life have been linked to effects on IQ, learning, memory, and behavior. There is no known safe level of lead in the body.

- EPA estimates that the revised standards will yield health benefits valued between $3.7 billion and $6.9 billion. The benefits reflect an expected increase in lifetime earnings as a result of avoiding IQ loss. The agency estimates costs of implementing the standards at approximately $150 million to $2.8 billion.

- In conjunction with strengthening the lead NAAQS, EPA is improving the existing lead monitoring network by requiring monitors to be placed in areas with sources such as industrial facilities that emit one ton or more per year (tpy) of lead and in urban areas with more than 500,000 people.

- Also as part of this notice, EPA describes the approach for implementing the revised standards and provides an implementation timeline.

REVISIONS TO THE STANDARDS

Primary (Health) Standard

- Based on a review of the full body of evidence, EPA has determined that the 1978 standard of 1.5μg/m^3 is not sufficient to protect public health with an adequate margin of safety.

- The Agency is revising the level of the standard to 0.15 μg/m^3 to provide increased protection for at-risk populations against a variety of adverse health effects, most notably effects on the developing nervous system.

- Like the 1978 standard, the new standard will be measured as the concentration of lead in TSP, reflecting evidence that lead particles of all sizes pose potential health risks.

Secondary (Welfare) Standard

- To provide increased protection against lead-related welfare effects, EPA is revising the current secondary standard to be identical to the proposed primary standard.

- A significant number of new studies have been conducted since 1978 that associate lead pollution with adverse effects on organisms and ecosystems. However, there was not enough evidence linking various effects to specific levels of lead in the air for EPA to select a different level for the secondary lead standard at this time.

DETERMINING COMPLIANCE WITH THE STANDARDS

- EPA has revised the averaging time and form of the lead NAAQS. These are the air quality statistics that are compared to the level of the standards to determine whether an area meets or violates the standards.

- EPA changed the calculation method for the averaging time to use to 'rolling' three-month period with a maximum (not-to-be-exceeded) form, evaluated over a three-year period. This replaces the current approach of using calendar quarters. A rolling three-month average considers each of the 12 three-month periods associated with a given year, not just the four calendar quarters within that year.

LEAD AIR QUALITY MONITORING

- EPA is redesigning the lead monitoring network to assess compliance with the revised the lead standards.
    - EPA will require state and local monitoring agencies to conduct monitoring taking into account lead sources that are expected to, or have been shown to, exceed the standards. At a minimum, monitors must be placed in areas with sources of lead emissions greater than or equal to one ton or more per year, to measure the maximum concentration.

- EPA also will require a monitor to be operated in each of the 101 urban areas with populations greater than 500,000 to gather information on the general population's exposure to lead in air and ensure protection against sources of airborne dust containing lead.

- EPA Regional Administrators may waive the source-oriented monitoring requirements if the monitoring agency can demonstrate that emissions from the source will not contribute to maximum air lead concentrations greater than 50 percent of the revised standard, or 0.075 ug/m^3.

- EPA estimates that 236 new or relocated monitoring sites will be necessary to satisfy these monitoring requirements. Approximately half of all newly required monitors are to be operational by January 1, 2010, with the other half of the monitors operational by January 1, 2011. In addition, some existing lead monitors will be left in place and will continue to be used as part of the lead monitoring network.

- EPA is requiring lead to be monitored as lead in total suspended particles (TSP). The Agency will allow the use of lead-PM_{10} monitors instead of lead-TSP monitors under certain limited circumstances: where lead is not expected to occur as large (ultra-coarse) particles; and where three-month average lead concentrations are not expected to be greater than or equal to 0.10 µg/m^3.

    - If a lead-PM_{10} monitor measures three-month average levels greater than or equal to 0.10 µg/m^3, then that monitoring agency must install and operate a lead-TSP monitor within six months
    - Lead- PM_{10} measurements greater than the NAAQS are considered to be in violation of the standards.

IMPLEMENTING THE STANDARDS

- In this notice, the Agency is describing its approach for implementing the revised lead standards.

- For counties with violating monitors, EPA will use the county boundary as the expected boundary for nonattainment areas. The Agency will consider adjustments to that boundary on a case-by-case basis.

- EPA is not establishing classifications for nonattainment areas based on the severity of lead violations.

- The Agency will retain the 1978 lead NAAQS until one year after designations for the new standards, except in current nonattainment areas. In those areas, EPA will retain the 1978

standard until the area submits, and EPA approves, attainment and/or maintenance demonstrations for the new standards. This will ensure continuous public health protection.

Estimated Timeline for Implementing Revised Standards

- States are required to make recommendations for areas to be designated attainment, nonattainment, or unclassifiable by October 2009. If tribes choose to submit recommendations, they must also provide them to EPA by October 2009.
- Final designations of all attainment, nonattainment and unclassifiable areas will be effective no later than January 2012. However, EPA intends to complete initial designations as soon as possible where data are sufficient from existing monitoring network.
- States are required to submit State Implementation Plans outlining how they will reduce pollution to meet the standards no later than June 2013.
- States are required to meet the standards no later than January 2017.

LEAD AND PUBLIC HEALTH

- Lead that is emitted into the air can be inhaled or, after it settles out of the air, can be ingested. Ingestion of lead that has settled onto surfaces is the main route of human exposure to lead originally released into the air.

- Once in the body, lead is rapidly absorbed into the bloodstream and results in a broad range of health effects.

- Children are most vulnerable to the damaging effects of lead because they are more likely to ingest lead due to hand-to-mouth activity and their bodies are developing rapidly.

- No safe level of lead in the blood has been identified.

- Effects in children include:
    - Effects on the developing nervous system including the brain. This can lead to IQ loss, poor academic achievement, permanent learning disabilities, and delinquent behavior. The effects can generally persist into early adulthood and can affect lifetime education and achievement.
    - Damage to red blood cells
    - Weakened immune system
- Effects in adults include:
    - Increased blood pressure
    - Cardiovascular disease
    - Decreased kidney function

HEALTH BENEFITS AND COSTS

- The Clean Air Act prohibits EPA from considering costs in setting or revising National Ambient Air Quality Standards. To inform the public, the Agency analyzes the benefits and costs of meeting the standards as required by Executive Order 12866 and guidance from the White House Office of Management and Budget.

- To estimate the costs of meeting the final NAAQS, EPA analyzed the cost of using both existing controls and controls that may be developed in the future for reducing lead from industrial sources.

- EPA estimates that at full implementation of the final lead NAAQS in 2016, the costs in that year will be approximately $150 million to $2.8 billion.

- To estimate the benefits of meeting the revised lead standards, EPA used peer-reviewed studies of health and welfare effects, and peer-reviewed studies of the dollar values of public health improvements.

- EPA calculated the benefits of avoiding IQ loss for children under age seven that would result from a revised lead NAAQS. Because expected lifetime earnings are related to IQ, we describe benefits as an expected increase in lifetime earnings at full implementation of the NAAQS in 2016. The estimate also includes co-benefits associated with other health improvements expected to occur as a result of fine particulate matter reductions resulting from controls applied to reduce lead levels. EPA estimates the revised standards will yield benefits between $3.8 billion to $6.9 billion.

BACKGROUND

- The Clean Air Act requires EPA to set national ambient air quality standards (NAAQS) for "criteria pollutants," which include lead, ozone, nitrogen oxides, carbon monoxide, sulfur oxides, and particulate matter. The law also requires EPA to periodically review the standards and revise them if appropriate to ensure that they provide the requisite amount of health and environmental protection.

- In response to a case filed by the Missouri Coalition for the Environment, the U.S. District Court for the Eastern District of Missouri in September 2005 ordered EPA to complete the lead NAAQS review by Sept. 1, 2008. The court agreed on April 29, 2008 to extend the deadline for signature of the final rule until Sept. 15, 2008. The court agreed on July 1, 2008 to further extend the signature deadline until October 15, 2008.

- Lead is a metal found naturally in the environment and present in some manufactured products. The major sources of lead air emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Motor vehicle emissions have been dramatically reduced with the phase-out of leaded gasoline, but lead is still used as an

additive in general aviation gasoline used in piston-engine aircraft and remains a trace contaminant in other fuels.

- Larger industrial sources of lead emissions currently include metals processing, particularly primary and secondary lead smelters. Lead is also emitted from industries such as: iron and steel foundries; primary and secondary copper smelting; industrial, commercial, and institutional boilers; waste incinerators; glass manufacturing; and cement manufacturing.

- Only two areas, the East Helena, Mont., area (including Lewis and Clark County), and Herculaneum, Mo. (in Jefferson County) are designated nonattainment for the current national ambient air quality standards for lead. The industrial facility contributing to the lead problem in the East Helena area closed in 2001.

- The United States has made tremendous progress in reducing lead concentrations in the outdoor air. Nationwide, average concentrations of lead in the air have dropped nearly 94 percent between 1980 and 2007. Much of this dramatic improvement occurred as a result of the permanent phaseout of lead in gasoline. However, lead continues to be emitted into the air from many different types of stationary and piston engine aircraft.

- In addition to dramatically decreased airborne lead concentrations, another indicator of progress in the reduction of airborne lead in the environment is the drop in children's blood lead levels over time. Since the late 1970s, average blood lead concentration for children aged 1 to 5 have dropped significantly, from about 15 micrograms per deciliter (μg/dL) to less than 2 μg/dL. However, new studies show that health effects occur even at very low blood lead levels.

FOR MORE INFORMATION

- To download a copy of the final rule, go to EPA's Web site at: http://epa.gov/air/lead/actions.html

- For more information about lead in the air, go to EPA's Web site at: http://epa.gov/air/lead/

STAKEHOLDERS: Click here for latest policy and program news.

I WANT TO:

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Recycle my electronics

Learn more about Oregon E-Cycles

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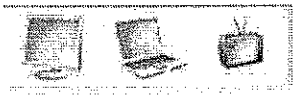
Receive e-mail notices about Oregon E-Cycles

Stakeholders

Advisory Workgroup

The 2007 Oregon Legislature passed ORS 459A.300-.365 which established the Oregon E-Cycles Program. The law requires manufacturers of televisions, computers (desk tops and laptops), and monitors to provide and finance a statewide recycling program for their products. The DEQ is charged with assuring that the program is implemented according to the provisions in the law. The DEQ established an Advisory Workgroup to help develop procedures so that the program can begin operation by the required date of January 2009.

The Oregon E-Cycles Advisory Workgroup will provide input and comment on program design and operations procedures, act as a sounding board on implementation issues, and provide expertise on various implementation topics.



Next Meeting: Tuesday, Dec. 16, 2008

10 am - 3 pm
Room EQC A
(10th Floor)
DEQ Headquarters
811 SW 6th Ave.
Portland

For more information, please contact Kelly Panciera at 503-229-5830 or via e-mail .

Meeting agendas, handouts and minutes (all are PDFs unless otherwise noted)

- **August 6, 2008**
  - Agenda
- **May 6, 2008**
  - Agenda
  - Meeting Minutes
- **March 12, 2008**
  - Agenda
  - Meeting Minutes
- **February 13, 2008**
  - Agenda
  - Meeting Minutes
- **January 16, 2008**
  - Agenda
  - Meeting Minutes
- **December 12, 2007**
  - Agenda
  - Meeting Minutes
- **November 13, 2007**
  - Agenda
  - Meeting Minutes
- **October 11, 2007**

- Agenda
- Meeting Minutes

Advisory Workgroup resources

- Members
- Oregon E-Cycles Implementation Specifics
  Initial list of Oregon E-Cycles implementation topics that the Advisory Work Group will address.

[print version]

For more information about Oregon E-Cycles, e-mail Ecycle.info.

For more information about **DEQ's Land Quality Division and its programs**, see the contact page.

Oregon Department of Environmental Quality
Headquarters: 811 Sixth Ave., Portland, OR 97204-1390
Phone: 503-229-5696 or toll free in Oregon 1-800-452-4011
Oregon Telecommunications Relay Service: 1-800-735-2900 FAX: 503-229-6124

State of Oregon
Department of Environmental Quality Memorandum

Date: November 23, 2008

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item D, Action Item: Pollution Control Tax Credit Considerations
December 10-11, 2008 EQC Meeting

Why This is Important

The Environmental Quality Commission approves or denies the certification of a pollution control facility.

Background

The EQC certification entitles an Oregon taxpayer to subtract up to 35 percent of the certified facility cost from its Oregon tax liability. The taxpayer may take the tax credit in equal parts over the remaining useful life of the facility, but for no more than ten years.

The Pollution Control Facilities Tax Credit regulations direct the EQC to "certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof, if the commission finds that the facility qualifies as a pollution control facility." ORS 468.170 (4)(a).

Department Recommendation

The Department of Environmental Quality recommends the EQC:

- Approve Pollution Control Facilities Tax Credit applications summarized in Attachment A and detailed in Attachment B.
- Transfer certificates presented in Attachment C.

EQC Action Alternatives

The EQC may postpone an application to a future meeting if the EQC:

- Requires additional information from DEQ or the applicant; or
- Makes a determination different from DEQ that may have an adverse effect on the applicant.

Oregon law permits certificate holders to begin using the tax credit in their tax year that coincides with the year in which the EQC certified the facility. The applicants in this report have a December 31 tax year-end.

If the EQC postpones any application from Attachment B, the DEQ requests that the EQC schedule a telephone meeting to consider certification prior to January 1, 2009.

Attachments

A. Summary of Recommendations
B. Background and References for Final Certification
C. Certificate Administration
D. Tax Expenditure Liability Report

Available Upon Request

ORS 468.150 to 468.190 and OAR 340-016-0005 to 340-016-0080

Approved:

Section:

Division:

Report Prepared By: Maggie Vandehey
Phone: (503) 229-6878

Attachment A
Summary of Recommendations

From Attachment B: Recommended for Approval

Tab	App #	Applicant	Claimed	Certified	Difference	% Allocable	Max Percent	Tax Credit	EQC Action
Water	7499	Evraz Inc. NA	1,261,357	1,261,357	(0)	100%	35%	441,475	
Water	7788	Safeway Fuel # 2690	69,278	69,058	(220)	100%	35%	24,170	
Mat Rec	7798	JM Boitano Sanitary Service Inc	361,374	361,374	0	100%	35%	126,481	
Noise	7900	Portland General Electric Co.	7,957,667	7,957,667	0	100%	35%	2,785,183	
Air	7901	Portland General Electric Co.	5,500,751	5,500,751	0	100%	35%	1,925,263	
Water	7902	Portland General Electric Co.	592,417	592,417	0	100%	35%	207,346	
Water	7941	JRL LLC	468,135	468,135	0	100%	35%	163,847	
Air	7946	Murphy Co.	83,434	83,434	0	100%	35%	29,202	
Water	7952	United Parcel Service	209,615	175,706	(33,909)	100%	35%	61,497	
Water	7953	Jerzy Wozniak	914	914	0	100%	35%	320	
Mat Rec	7954	Cloudburst Recycling, Inc.	168,769	168,769	0	100%	35%	59,069	
Mat Rec	7955	Umpqua Bank Leasing	674,844	674,844	0	100%	35%	236,195	
Mat Rec	7956	The Penguin Group, LLC	305,808	305,808	0	100%	35%	107,033	
Alt FB	7957	Muddy Creek Farms	319,754	319,754	0	88%	35%	98,484	
Mat Rec	7961	Western Oregon Waste-Valley	217,301	188,433	(28,868)	100%	35%	65,952	
Mat Rec	7962	Western Oregon Waste-Valley	209,449	192,457	(16,992)	100%	35%	67,360	
Mat Rec	7963	Heiberg Garbage Service	810,822	810,822	0	100%	35%	283,788	
Water	7967	Drs. Kiley and Roberts LLC	1,852	1,735	(117)	100%	35%	607	
Water	7968	Robert Keith Frome	913	913	0	100%	35%	320	
Alt FB	7969	Malpass Farms	43,500	43,500	0	100%	35%	15,225	
Water	7970	Carter & Co., Inc.	44,806	34,074	(10,732)	100%	35%	11,926	
NPS	7971	Christopher Monkman	23,749	23,749	0	100%	35%	8,312	
Mat Rec	7972	Western Oregon Waste-Valley	21,467	21,467	0	100%	35%	7,513	
Mat Rec	7973	Waste Connections of Oregon, Inc.	191,632	191,632	0	100%	35%	67,071	

Attachment A

Summary of Recommendations

Tab	App #	Applicant	Claimed	Certified	Difference	% Allocable	Max Percent	Tax Credit	EQC Action
Mat Rec	7974	First Independent Leasing	271,200	271,200	0	100%	35%	94,920	
Mat Rec	7975	Umpqua Bank Leasing	210,402	210,402	0	100%	35%	73,641	
Water	7977	David C Kreutzer, DMD	1,091	1,091	0	100%	35%	382	
Air	7979	Murphy Co.	1,006,790	1,006,790	0	100%	35%	352,377	
28 Applications		Sum	$21,029,091	$ 20,938,253				$ 7,314,959	
		Average	$ 751,039	$ 747,795				$ 261,249	
		Minimum	$ 913	$ 913				$ 320	
		Maximum	$ 7,957,667	$ 7,957,667				$ 2,785,183	

From Attachment C: Certificate Administration

Action	Cert #	Transaction	From	To	
Transfer	11232	Owner change	Donald R Pollard	Tim G. Brewer 4720 SW Nash Avenue Corvallis, OR 97333	
1 Certificate					

Attachment B
Background and References for Final Certifications

Recommendation

The Department of Environmental Quality recommends that the Environmental Quality Commission approve **$7,314,959** in tax credits to **28** pollution control and material recovery facilities summarized in Attachment A and detailed in this attachment.

To make its recommendation, DEQ relied on the application records, the Pollution Control Facilities Tax Credit regulations, pertinent legal advice, and previous EQC decisions and directions.

Organization of Application Reviews

DEQ organized the application reviews in application ascending order behind the tabs for the following categories.

Tax Credit Type	Tab
1. Air Pollution Controls	*Air*
2. Alternatives to Field Burning	*Alt FB*
3. Material Recovery	*Mat Rec*
4. Noise Pollution Controls	*Noise*
5. Nonpoint Source Pollution Controls	*NPS*
6. Water Pollution Controls	*Water*

Each tab includes three sections:

1. Recommendation and Eligibility Criteria
2. Reviews
3. References

Each tab includes the eligibility criteria and the decisions required for certifying a pollution control or material recovery facility and for determining the amount of the tax credit. Each tab and the reviews behind the tab provide DEQ's analysis regarding the:

- Facility's qualifications for certification as a pollution control facility
- Eligible facility cost
- Percentage of the tax credit attributed to pollution control
- Maximum allowable tax credit.

DEQ will use the information in this attachment to:

- Notify the applicants of the EQC's certification
- Develop the Pollution Control Facility Tax Credit Certificate
- Develop the taxpayer's Department of Revenue form for claiming the credit on the Oregon Tax Return, and
- Develop reports for the EQC, agency management, the Department of Revenue, the Governor's Office, Legislators and other interested parties

Pollution Control Facility Certification Authority

ORS 468.170(4)(a) provides the EQC its authority to certify pollution control facilities.

Regulation	Department Interpretation
468.170[1] (4)(a) The commission shall certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof, for which an application has been made under ORS 468.165, if the commission finds that the facility:	The applicant filed a valid application.
(A) Was erected, constructed or installed in accordance with the requirements of ORS 468.165 (1);	The applicant constructed the facility after effective date of authorizing legislation.
(B) Is designed for, and is being operated or will operate in accordance with the requirements of ORS 468.155; and	The facility meets the definition of a pollution control facility.
(C) Is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.	The facility is necessary to satisfy DEQ administered regulations.

[1] ORS 468.170 Action on application; rejection; appeal; issuance of certificate; certification.

ORS 468.170(1) provides EQC with the authority to certify the facility cost and the portion of the cost allocable to pollution control. ORS 468.170(10) provides authority to certify the applicable percentage (Maximum Allowable Percentage) of the certified cost of the facility eligible for tax credit.

Regulation	Department Interpretation
468.170 (1) The Environmental Quality Commission shall act on an application for certification before the 120th day after the filing of the application under ORS 468.165. The action of the commission shall include certification of the actual cost of the facility and the portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or appropriately disposing of used oil.	The certified facility cost represents the actual cost. The claimed items control pollution, solid or hazardous waste, or recycle.
The actual cost or portion of the actual cost certified may not exceed the taxpayer's own cash investment in the facility or portion of the facility. Each certificate shall bear a separate serial number for each such facility.	The cost represents the applicant's investment.
468.170 (10) If the construction or installation of a facility is commenced after December 31, 2005, the facility may be certified only if the facility or applicant is described in ORS 468.173 (3). A facility described in ORS 468.173 (2) for which construction or installation is commenced after December 31, 2005, may not be certified under this section.	The applicant, the facility or the location of the facility qualifies for a maximum percentage above zero (0) percent.

Air Pollution Controls

Recommendations and Eligibility Criteria

DEQ recommends the EQC approve **$2,306,842** in tax credits to **three** applicants for air-cleaning devices (facilities) used to reduce air pollution. Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) - The principal purpose of the facility is to reduce air pollution in response to a DEQ, federal EPA or a regional air pollution authority imposed condition, or the sole purpose of the facility is to reduce a substantial quantity of air pollution.

☑ ORS 468.155 (1)(b)(B) – The facility accomplishes the prevention, control or reduction by disposal or elimination of air pollution, air contaminants or air contamination source and the use of an air cleaning device defined in ORS 468A.005.

☑ ORS.468.170 (4)(a) - The facility satisfies the intents and purposes of ORS chapter 468A - Air Pollution.

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 - The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to air pollution control.

☑ ORS 468.173(3)(h) - The maximum tax credit is 35 percent because the applicant submitted applications between January 1, 2002, and December 31, 2008, inclusively, and the certified cost would not exceed $200,000, or the facility is located in an enterprise zone or economically distressed area at the time of certification.

Reviews

7946

Murphy Company
S Corp 93-0939018

Facility Cost		**$83,434**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$29,202

Description

A Western Pneumatic Primary Baghouse system, serial number FLT-275-0132530

Murphy Company produces engineered Laminated Veneer Lumber (LVL) for housing, industrial, and commercial markets. The manufacturing process laminates Douglas fir veneer sheets to form billets. Plant machinery cuts the billets into headers, beams, and other products.

The company installed hoods to capture sawdust and plytrim from the saws, hogging heads, and the veneer hog and ducting to transport the particulate to the exterior of the building. The company claims exterior ducting from the building to the claimed baghouse system. In the baghouse, plytrim falls to the bottom of the cyclone, under the filter bags. A Twin City Fan (100 HP) pulls the air through the bags to remove particulate with a 99.999 percent efficiency. A PryroGuard spark detection system protects against fire in the system. A small high-pressure blower purges the bags by knocking off plytrim and dust to the cyclone where a feeder meters the material to the truck bin. (The applicant will submit a material recovery application for the truck bin.)

The principal purpose of the claimed facility is to comply with the company's Air Contaminate Discharge Permit condition that a baghouse to control the sawdust from saws and hog chip operations.

The claimed cost does not include costs for interior ductwork. The applicant accurately subtracted EnergyTrust of Oregon incentive and the net present value of the Business Energy Tax Credit. The claimed facility is located in the Sutherlin, Oregon, which is an economically distressed area; therefore, it is eligible for the 35 percent tax credit. The State of Oregon issued one Pollution Control Facilities Tax Credit certificate to Murphy Plywood Company at this location for a waste wood fired boiler; the claimed facility is not a replacement to the previously certified facility.

Applicant Address
2350 Prairie Road
Eugene, OR 97402

Facility Address
Murphy Engineered Wood Division
412 W Central Avenue
Sutherlin, OR 79479

7901

Portland General Electric Company	Facility Cost		**$5,500,751**
C Corp 93-0256820	Percentage Allocable	X	**100%**
	Maximum Percentage	X	**35%**
	Tax Credit		$1,925,263

Description

Air pollution control systems

Portland General Electric Company is an energy service provider that owns and operates the Port Westward Generating Plant in Clatskanie, Oregon. The new 400-megawatt natural gas, combined cycle combustion turbine plant generates electricity with the capacity to serve approximately 300,000 homes.

Natural gas burned in the combustion turbine produces exhaust gases that pass through the heat recovery steam generator (HRSG) where energy (heat) from the exhaust gas converts water to steam to power the steam turbine generator. The HRSG can also supply additional steam by burning natural gas in the HRSG duct burners.

The applicant claims the following air pollution controls at Port Westward Generating Plant.

- A perforated plate to reduce and evenly distribute flow from the combustion turbine exhaust to the first heat transfer section of the HRSG. The even flow helps the HRSG duct burners operate efficiently to produce less NOx in the exhaust gas. The duct burners consist of a control skid, gas distribution piping, igniters, and flame scanners.

- A Selective Catalytic Reduction (SCR) located in the Heat Recovery Steam Generator (HRSG) that uses the chemical composition of the SCR modules and vaporized ammonia to remove nitrous oxide (NOx) from the exhaust gas stream to 2.5 parts per million. Without the SCR, the combustion gas turbine would exhaust 40 parts per million NOx. The SRC includes the SCR module, an ammonia injection grid, hot flue gas piping, redundant fans, ammonia vaporizer, piping, and controls.

- A Continuous Emissions Monitoring System (CEMS) is located in a shelter at the base of the exhaust stack. The CEMS monitors pollutants in the exhaust using

probes placed 175 feet up the stack. It provides feedback to the SCR so the ammonia injection rate can be adjusted to ensure NOx meets permit requirements.

- Sixteen annular Low NOx Combustors that are installed in the combustion turbine for optimal firing temperature and fuel-to-air mixture to minimize NOx in the exhaust gas to no more than 40 parts per million. Without the combustors, NOx levels would be significantly higher, and a larger SCR would be required.

- A CO Catalyst that is located in the HRSG to remove carbon monoxide (CO) from the exhaust gas stream to no more than 4.9 parts per million. The CO catalyst is an oxidation catalyst made up of modular blocks stacked in a frame.

- A low NOx burner and recirculation system (burner controls, fuel gas piping, fuel burners, recirculation fans and ductwork) that is installed on the Auxiliary Boiler used to reduce exhaust emissions to 4.55 pounds per hour of NOx and 7.28 pounds per hour of CO.

The principal purpose of the claimed facility is to comply with the Air Contaminate Discharge Permit for best available control technology (BACT). Pipeline quality natural gas is clean burning and effectively controls particulate and sulfur. The dry low NOx combustors in the combustion turbine, the low NOx burner designed for the HRSG duct burners, and the SCR system in the HRSG effectively limit NOx emissions based on 15 percent O2 from approximately 50 parts per million to 2.5 parts per million or less. The CO catalyst in the HRSG limits CO emissions to 4.9 parts per million at 15 percent O2.

The applicant and department calculated the percentage of the facility cost according to standard method in OAR 340-016-0075 (3). Port Westward Generating Plant is located in an enterprise zone; therefore, the maximum allowable percentage is 35 percent. The EQC has issued 167 pollution control tax credit certificates to the applicant but none to the Port Westward Generation Plant site. The claimed facility is not a replacement facility.

Applicant Address
121 SW Salmon Street
Portland, OR 97204

Facility Address
Port Westward Generating Plant
810997 Kallunki Road
Clatskanie, OR 97016

7979

Murphy Company
S Corp 93-0939018

Facility Cost		**$1,006,790**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$352,377

Description

A Regenerative Thermal Oxidizer (RCO)

Murphy Company produces engineered Laminated Veneer Lumber (LVL) for housing, industrial, and commercial markets. The manufacturing process laminates Douglas fir veneer sheets to form billets. The laminated veneer dryers generate Volatile Organic Compounds (VOCs) including particulate, acetaldehyde, formaldehyde, and methanol.

The company claims a two-celled RCO to destroy 95 percent of the VOCs and methonol generated by the dryers. A large fan pulls hot gases from the veneer dryers over a catalytic bed. Natural gas heats the medium, which maintains the heat at 800 degrees Fahrenheit or above.

The principal purpose of the claimed facility is to comply with the company's Air Contaminate Discharge Permit to control emissions from the laminated veneer dryers.

The applicant and department calculated the percentage of the facility cost according to standard method in OAR 340-016-0075 (3). The claimed facility is located in the Sutherlin, Oregon, which is an economically distressed area; therefore, it is eligible for the 35 percent tax credit. The State of Oregon issued one Pollution Control Facilities Tax Credit certificate to Murphy Plywood Company at this location for a waste wood fired boiler; the claimed facility is not a replacement to the previously certified facility.

Applicant Address
2350 Prairie Road
Eugene, OR 97402

Facility Address
Murphy Engineered Wood Division
412 W Central Avenue
Sutherlin, OR 79479

References

ORS 468.155[2]

(1)(a) As used in ORS 468.155 to 468.190 and 468.962, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if:

(A) The principal purpose of such use, erection, construction or installation is to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency or regional air pollution authority to prevent, control or reduce air…pollution…; or

(B) The sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of air…pollution…

(1)(b) Such prevention, control or reduction required by this subsection shall be accomplished by:…(B) The disposal or elimination of or redesign to eliminate air contaminants or air pollution or air contamination sources and the use of air cleaning devices as defined in ORS 468A.005;…

ORS 468A.005 provides the following definitions.

Air contamination is dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter or any combination thereof.

Air pollution is the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such areas of the state as shall be affected thereby.

[2] Definitions for ORS 468.155 to 468.190 and 468.962

Air contamination source is any source at, from, or by reason of which there is emitted into the atmosphere any air contaminant, regardless of who the person may be who owns or operates the building, premises or other property in, at or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes.

An air cleaning device is any method, process or equipment that removes, reduces or renders less noxious air contaminants prior to their discharge in the atmosphere.

OAR 340-016-0060[3]

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate:...(a) Air contamination by use of air cleaning devices as defined in ORS 468A.005 or through equipment designed to prevent, reduce or eliminate air contaminants prior to discharge to the outdoor atmosphere;...

[3] Eligibility

Alternatives to Open Field Burning

Recommendations and Eligibility Criteria

DEQ recommends the Commission approve **$113,709** in tax credits to **two** grass-seed growers who invested in alternatives to field burning. Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a)(A) and OAR 340-016-0060 (2)(a) – The principal purpose of each facility is to reduce the maximum acreage to be open burned in compliance with OAR 340-266-0060 - Acreage Limitations, Allocations.

☑ ORS 468.150 and OAR 340-016-0060 (4)(b) – Each grower invested in an eligible method for reducing the number of grass seed acres requiring open field burning.

☑ ORS.468.170 (4)(a) – Each facility satisfies the intents and purposes of ORS chapter 468A – Air Pollution.

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 – The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 – Each applicant accurately determined and DEQ verified the percentage of the facility cost allocable to air pollution control.

☑ ORS 468.173(3)(f) – The maximum tax credit is 35 percent because the applicants submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the certified facility cost does not exceed $200,000 or the facility is located in an economically distressed area.

Reviews

7957

Muddy Creek Farms
Partnership 93-0970589

Facility Cost		**$319,754**
Percentage Allocable	X	**88%**
Maximum Percentage	X	**35%**
Tax Credit		$98,484

Description

Drainage tile installation: 240,160 feet of 4 inch diameter drain tile, 4,544 feet of 6 inch diameter drain tile, 2,775 feet of 8 inch diameter drain tile, 7,830 feet of 10 inch diameter drain tile, 2,820 feet of 12 inch diameter drain tile, one catch basin, and two outlets

Muddy Creek Farms cultivates annual rye grass on 649 acres and burned an average of 248 acres over the last three years. To reduce the number of acres burned, the applicant installed drainage tile on 331 acres to allow planting alternative crops. Lane County records identify the tiled acreage as Tax Lots 00401, 00700, and 00803.

The applicant and department calculated the percentage of the facility cost as 88 percent according to standard method in OAR 340-016-0075 (3). The farm is located in Creswell, a severely economically distressed area; therefore, the maximum allowable credit is 35 percent. The EQC has not issued any certificates to the farm, its partners, or to the field locations. The drainage tile installation does not replace a previously certified facility.

Applicant Address
1206 Jaquelyn Street
Milton Freewater, OR 97862

Facility Address
84251 Cloverdale Road
Creswell, OR 97862

7969

Malpass Farms
Partnership 93-0848281

Facility Cost		**$43,500**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$15,225

Description

One - WIL-RICH model V957DDR deep till ripper, serial number 457243

Malpass Farms cultivates annual grass seed on 4,366 acres and perennial grass seed on 2,829 acres. The farm owns 3,883 acres and leases an additional 4,366 acres. In the last three years the applicant has open burned an average of 1,468 acres to achieve field sanitation for grass seed production.

The applicant claims a disk ripper as an alternative to open burning. The applicant uses the ripper on 945.5 acres identified as Linn County Tax Lots 00100/14S03W33, 00200/00300/00400/15S03W34, and 00100/16S03W04; and 527.2 acres identified as Linn County Tax Lots 00102/00200/00501/16-03-09, and 00300/16-03-16.

The EQC has issued one certificate to the farm for a straw storage building. The ripper was not previously certified, and it does not replace a previously certified facility; therefore, it is not a replacement facility.

Applicant Address
PO Box 225
Harrisburg, OR 97446

Facility Address
32255 Bowers Drive
Harrisburg, OR 97446

References

ORS 468.150[4]

After alternative methods for field sanitation and straw utilization and disposal are approved by the Department of Environmental Quality, "pollution control facility," as defined in ORS 468.155, shall include such approved alternative methods and persons purchasing and utilizing such methods shall be eligible for the benefits allowed by ORS 468.155 to 468.190 and 468.962. [1975 c.559 §15; 1999 c.59 §136]

Note: 468.150 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 468 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

OAR 340-016-0060[5]

(4) Eligible Activities… (b) Alternatives to Open Field Burning. The facility shall reduce or eliminate:

(A) Open field burning and may include equipment, facilities, and land for gathering, densifying, handling, storing, transporting and incorporating grass straw or straw based products;

(B) Air quality impacts from open field burning and may include propane burners or mobile field sanitizers; or

(C) Grass seed acreage that requires open field burning. The facility may include:
- (i) Production of alternative crops that do not require open field burning;
- (ii) Production of rotation crops that support grass seed production without open field burning; or
- (iii) Drainage tile installations and new crop processing facilities.

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[4] Field sanitation, and straw utilization and disposal methods as "pollution control facilities"

[5] Eligibility

Material Recovery

Recommendations and Eligibility Criteria

DEQ recommends that the EQC approve **$1,189,023** in tax credits to **11** applicants who invested in recycling containers, trucks and balers (facility) used in a material recovery process. Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) – The sole purpose of the facility is to prevent, control, or reduce a substantial quantity of solid waste.

☑ ORS 468.155 (1)(b)(D), OAR 340-016-0010(7) and OAR 340-016-0060(4)(e) – The facility prevents, controls, or reduces waste material by using a material recovery process. The process obtains useful material from material that would otherwise be solid waste.

☑ ORS.468.170 (4)(a) – Each facility satisfies the intents and purposes of ORS chapter 459A – Refuse and Recycling.

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 – The facility cost recommended for certification represents the actual material recovery cost and does not exceed the taxpayer's (applicant) own cash investment in the facility.

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 – Each applicant accurately determined and DEQ verified the percentage of the facility cost allocable to material recovery.

☑ ORS 468.173(3)(d) – The maximum tax credit is 35 percent because the applicants submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the applicant uses the certified facility in a material recovery process or for recycling.

Reviews

7798

JM Boitano Sanitary Service Inc
S Corp 93-0636264

Facility Cost		**$361,374**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$126,481

Description

5,384 65-gallon Universal model commingled recycling carts, serial numbers CR000001-5384
5,276 65-gallon Universal model green-waste collection, serial numbers CC000001-5276

JM Boitano Sanitary Service, Inc. provides garbage and recycling services to 5,800 residential and commercial customers in the City of Portland. The applicant claims the carts to accumulate recyclable materials and yard debris from residential customers.

The sole purpose of the yard debris carts is to accumulate approximately 1,400 tons of recyclable materials and yard debris each year. The company collects and delivers the material to area processors for additional processing and shipping to regional mills for remanufacture into new products. For green waste, the area processor manufactures compost, soil amendments, and other landscape materials.

A paid invoice documented the claimed facility cost. The applicant and DEQ used the standard method in OAR 340-016-0075 (3) for determining the percentage of the facility cost allocable to pollution control. The EQC has not issued any Pollution Control Facilities Certificate to the applicant. The claimed facility is not a replacement of a previously certified facility.

Applicant Address
3547 SE 158th Avenue
Portland, OR 97236

Facility Address
Same as the applicant's address.

7954

Cloudburst Recycling, Inc.
S Corp 93-1125177

Facility Cost		**$168,769**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$59,069

Description

One - New Lodal model EVO Mag-20 recycling truck, serial number 1L9AC1B24K006964

Cloudburst Recycling, Inc. provides solid waste collection and disposal services to 4,500 residential and commercial customers in the City of Portland.

The applicant claims a recycling truck exclusively used to collect and transport yard debris to a third-party compost facility for manufacture into new products. The company collects and delivers the material to area processors for additional processing and shipping to regional mills for remanufacture into new products. The 20 cubic-yard truck has integrated dual side cart lifts. The sole purpose of the truck is to remove approximately 934 tons of yard debris from landfill disposal each year.

A paid invoice documented the claimed facility cost. The applicant and DEQ used the standard method in OAR 340-016-0075 (3) for determining the percentage of the facility cost allocable to pollution control. The EQC has issued one Pollution Control Facilities Certificate to the applicant; however, the truck does not replace a previously certified facility.

Applicant Address
PO Box 12106
Portland, OR 97212

Facility Address
2223 N Randolph Avenue
Portland, OR 97227

7955

Umpqua Bank Leasing	Facility Cost		**$674,844**
C Corp 93-1261319	Percentage Allocable	X	**100%**
	Maximum Percentage	X	**35%**
	Tax Credit		$236,195

Description

2006 Autocar model WX-64 recycling truck, Vehicle Identification Number 5VCDC6PW06H203254 equipped with a LaBrie 27 cubic-yard Automizer, serial number SF06106ING

2006 UD model 2000 recycling truck, Vehicle Identification Number JNAMB80H45AE55099 Equipped with a Wayne 12 cubic-yard Tomcat side loader, serial number 16959

75 – thirty-five gallon recycling carts with lids, serial numbers 35001 to 35075

7,776 – s ixty-five gallon recycling carts with lids, serial numbers 01 to 7776

Umpqua Bank Leasing (lessor) is a leasing company that claims recycling trucks and carts leased to Oak Grove Disposal Company, Inc. (lessee). The lessee provides refuse and recycling services to residential and commercial customers in the City of Milwaukie and unincorporated Clackamas County.

The lessee collects garbage and recyclable materials from 7,750 residential customers and 500 commercial customers. The applicant claims the carts to accumulate recycling materials, and two used trucks to collect and transport the materials.

The sole purpose of the carts is to accumulate approximately 2,924 tons of recyclable materials each year. The sole purpose of the trucks is to collect and transport approximately 2,360 tons of recyclable materials to an area material recovery facility for additional processing and shipping to regional mills for remanufacture into new products.

The applicant and DEQ calculated the percentage of the facility cost allocated to pollution control according to the standard method in OAR 340-016-0075 (3) using income and expenditures for the lessor. The EQC has issued 25 Pollution Control Facilities Certificates to the lessor, and 2 to this location leased through Premier West Bank for yard debris collection carts and trucks. The used trucks were not previously certified and some customers, such as multi-family dwellings, have more than one cart; therefore, the claimed facility is not a replacement to a previously certified facility.

Applicant Address
6400 SW Corbett Avenue
Portland, OR 97239-3558

Facility Address
Oak Grove Disposal Company, Inc.
16791 SE 120th Avenue
Clackamas, OR 97015

7956

The Penguin Group, LLC
LLC 41-2216303

Facility Cost		**$305,808**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$107,033

Description

2002 Crane Carrier recycling truck, Vehicle Identification Number 1CYCCK4852T045533, equipped with a Labrie Expert 2000 body, serial number CL02102SAA

The Penguin Group, LLC is a recycling equipment leasing company (lessor). The company provides recycling trucks and equipment to Rockwood Solid Waste, Inc. (lessee). The lessee serves 3,200 residential and 191 multi-family homes and commercial customers in areas of Gresham, Portland, and unincorporated Multnomah County.

The applicant claims a truck for collecting yard debris from residential customers and transporting it to a local processor for additional processing. The sole purpose of the carts and truck is to remove approximately 166 tons of recyclable materials from landfill disposal or burning.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The EQC issued one certificates to the applicant and one to Rockwood Solid Waste, Inc. for two recycling trucks, which are still in service. The claimed facility is not a replacement.

Applicant Address
7220 SW North Vale Way
Portland, OR 97225

Facility Address
Rockwood Solid Waste, Inc.
2550 NW Burnside Court
Gresham, OR 97030

7961

Western Oregon Waste - Valley
C Corp 93-0724867

Facility Cost		**$188,433**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$65,952

Description

2008 Peterbilt model 320RH automated sideloader recycling truck, Vehicle Identification Number 3BPZXLOOX37F717676 with a PendPac 27-yard gravity-dump auto arm

Western Oregon Waste is a solid waste and recycling collection company serving 17,919 residential and 859 commercial customers in Yamhill County. The company claims a truck (WOW Truck ID 329) to collect recyclable materials from residential customers.

The truck collects and delivers approximately 600 tons of recyclable materials to their plant for additional processing and then reloads the material for delivery to a facility for additional sorting for incorporation into new products.

In agreement with the applicant, DEQ subtracted $28,868 in ineligible costs from the claimed facility cost for erroneous freight and federal excise tax inclusions. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The EQC has issued six certificates to Western Oregon Waste; three were for the Valley Operations; the truck does not replace a previously certified facility.

Applicant Address
PO Box 509
McMinnville, OR 97128

Facility Address
Western Oregon Waste - Valley Operation
1850 NE Lafayette Avenue
McMinnville, OR 97128

7962

Western Oregon Waste - Valley	Facility Cost		**$192,457**
C Corp 93-0724867	Percentage Allocable	X	**100%**
	Maximum Percentage	X	**35%**
	Tax Credit		$67,360

Description

2008 Peterbilt model 320RH automated side loader recycling truck, Vehicle Identification Number 3BPZXLOOX37F718500 with a PendPac 27-yard gravity-dump auto arm.

Western Oregon Waste is a solid waste and recycling collection company serving 17,919 residential and 859 commercial customers in Yamhill County. The company claims a truck (WOW Truck ID 330) to collect recyclable materials from residential customers.

The truck collects and delivers approximately 600 tons of recyclable materials to their plant for additional processing and then reloads the material for delivery to a facility for additional sorting for incorporation into new products.

In agreement with the applicant, DEQ subtracted $16,992 in ineligible costs from the claimed facility cost for erroneous freight and federal excise tax inclusions. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). EQC has issued six certificates to Western Oregon Waste; three were for the Valley Operations. The truck does not replace a previously certified facility.

Applicant Address
PO Box 509
McMinnville, OR 97128

Facility Address
Western Oregon Waste - Valley Operation
1850 NE Lafayette Avenue
McMinnville, OR 97128

7963

Heiberg Garbage Service
S Corp 93-07893639

Facility Cost		**$810,822**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$283,788

Description

24,060 Toter 64-gallon recycling carts, serial numbers CR000001 through CR012130 and CC000001 through CC011930

Heiberg Garbage Service provides solid waste collection and disposal services to 11,884 residential and 1,082 commercial customers in the cities of Portland and Maywood Park in Multnomah County.

The applicant claims 12,130 carts to accumulate metals, paper fiber, plastic, and container glass. The applicant also claims 11,930 carts to accumulate yard debris. The company collects and delivers the recyclable materials to a recovery facility or mill, and the yard debris to an area compost facility for additional processing. Both waste streams are used to manufacture new products.

The carts are part of a material recovery that has the sole purpose of preventing approximately 4,800 tons of recyclable materials and 2,100 tons of yard debris from landfill disposal each year.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The EQC issued one certificate to the applicant and to this location. DEQ considered the applicant's service provisions, particularly the multi-family dwellings, and determined the claimed facility is not a replacement to a previously certified facility.

Applicant Address
PO Box 22069
Portland, OR 97269-2069

Facility Address
2300 SE Hanna Harvester Drive
Milwaukie, OR 97222

7972

Western Oregon Waste - Valley
C Corp 93-0724867

Facility Cost		**$21,467**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$7,513

Description

1 two-yard containers for cardboard
21 four-yard containers for cardboard
6 six-yard containers for cardboard

Western Oregon Waste is a solid waste and recycling collection company serving 17,919 residential and 859 commercial customers in Yamhill County. The company claims containers to accumulate cardboard from commercial customers.

The sole purpose of the containers is to prevent approximately 3,300 tons of recyclable materials from landfill disposal each year. The containers are part of a material recovery process. The company collects, sorts, and bales the material prior to delivery to regional paper mills for incorporation into new fiber-based products.

EQC has issued six certificates to Western Oregon Waste; three were for the Valley Operations. The containers do not replace a previously certified facility.

Applicant Address
PO Box 509
McMinnville, OR 97128

Facility Address
Western Oregon Waste - Valley Operation
1850 NE Lafayette Avenue
McMinnville, OR 97128

7973

Waste Connections of Oregon, Inc.
C Corp 93-0599115

Facility Cost		**$191,632**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$67,071

Description

2003 Volvo truck equipped with a PendPac automated sideload system, Vehicle Identification Number 4VEC6UE13N347170

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to 4,500 residential customers in the City of Gresham. The company claims a used recycling truck to collect and transport glass, metal, fiber, and cardboard to a material recovery facility or to a mill for additional processing and manufacture into new products.

The truck is used in a material recovery process that has the sole purpose of removing approximately 1,943 tons of recyclable materials from landfill disposal each year.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The EQC issued 60 certificates to the applicant and 20 certificates to Oregon Paper Fiber. The DEQ consiered the applicant's service agreements to determine the truck does not replace a previously certified facility.

Applicant Address
35 Iron Point Circle, Suite 200
Folsom, CA 95630

Facility Address
Oregon Paper Fiber
12820 NE Marx
Portland, OR 97031

7974

First Independent Leasing
C Corp 93-1261319

Facility Cost		**$271,200**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$94,920

Description

8,000 – T oter Incorporated sixty-four gallon recycling carts, serial numbers CR000001-CR004100, and CR000001-CR003900

First Independent Leasing (lessor) is a leasing company that claims recycling carts leased to Downtown Recycling LLC (lessee). The lessee is a holding company for Cloudburst Recycling, Inc. that provides refuse and recycling services to residential and commercial customers in Irvington, Laurelhurst, and Buckman neighborhoods in the City of Portland.

The lessee collects garbage and recyclable materials from 4,528 residential customers and 443 commercial customers. The applicant claims a recycling and yard debris cart placed with residential customer.

The sole purpose of the carts is to increase recycling by 33 percent, accumulating approximately 1,710 tons of recyclable materials in 2008. The company transports the recyclable materials to an area material recovery facility for additional processing and shipping to regional mills for remanufacture into new products. For green waste, the area processor manufactures compost, soil amendments, and other landscape materials.

The applicant and DEQ calculated the percentage of the facility cost allocated to pollution control according to the standard method in OAR 340-016-0075 (3) using income and expenditures for the lessor. The EQC has issued 25 Pollution Control Facilities Certificates to the lessor but none to the lessee. Cloudburst Recycling, Inc. has one certificate for a baler. DEQ considered the lessee's service provisions and determined the claimed facility is not a replacement to a previously certified facility.

Applicant Address
6400 SW Corbett Avenue
Portland, OR 97239-3558

Facility Address
Downtown Recycling LLC
2223 N Randolph Avenue
Portland, OR 97227

7975

Umpqua Bank Leasing
C Corp 93-1261319

Facility Cost		**$210,402**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$73,641

Description

1,350 Toter Incorporated 48-gallon recycling roll carts, serial numbers K000001 through K0001350

Two 2008 Young Trailer Company Star steel recycling trailer, vehicle identification numbers IS9H503038S026681 and IS9H503038S026682

Umpqua Bank Leasing (lessor) is a leasing company that claims recycling trucks and carts leased to Pride Disposal Company (lessee). The lessee provides refuse and recycling services to residential and commercial customers in Sherwood, Durham, King City, Tigard, and part of unincorporated Washington County.

The lessor claims recycling carts and two trailers that have the sole purpose to prevent approximately 254 tons and 21,224 tons of recyclable materials, respectively, from landfill disposal each year. The lessee collects garbage and recyclable materials from 1,270 residential customers and 25 commercial customers in King City. The lessee collects and delivers the recyclable materials to area material recovery facilites for additional processing and shipping to mills for remanufacture into new products.

The applicant and DEQ calculated the percentage of the facility cost allocated to pollution control according to the standard method in OAR 340-016-0075 (3) using income and expenditures for the lessor. The EQC has issued 25 Pollution Control Facilities Certificates to the lessor, four of those were issued to the lessee at this location for carts used in other service areas, two recycling trucks and an excavator that are still in use. DEQ considered the lessee's service provisions, particularly the multi-family dwellings, and determined the claimed facility is not a replacement to a previously certified facility.

Applicant Address
6400 SW Corbett Aveenue
Portland, OR 97239-3558

Facility Address
Pride Disposal Company
13980 Tualatin-Sherwood Road
Sherwood, OR 97140

References

ORS 468.155[6]

Such prevention, control or reduction required by this subsection shall be accomplished by the use of a material recovery process which obtains useful material from material that would otherwise be, hazardous waste as defined in ORS 466.005, or used oil as defined in ORS 459A.555. ORS 459.005 provides the following definition of solid waste.

Solid Waste: All useless or discarded putrescible and non-putrescible materials, including but not limited to garbage, rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid materials, dead animals and infectious waste as defined in ORS 459.386. ORS 459.005(24).

OAR 340-016-0060[7]

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate hazardous waste, solid waste and used oil. The facility shall eliminate or obtain useful material from material that would otherwise be solid waste as defined in ORS 459.005, hazardous waste as defined in ORS 466.005, or used oil as defined in ORS 468.850. The facility shall produce an end product of utilization that is an item of real economic value and is competitive with an end product produced in another state. The facility shall produce the end product by mechanical processing, chemical processing; or through the production, processing, pre-segregation, or use of materials which:

(A) Have useful chemical or physical properties which may be used for the same or other purposes; or

(B) May be used in the same kind of application as its prior use without change in identity.

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[6] Definitions for ORS 468.155 to 468.190 and 468.962
[7] Eligibility

Noise Pollution Controls

Recommendations and Eligibility Criteria

DEQ recommends the EQC approve **$2,785,183** in tax credits to **one** applicant for noise abatement (facilities) used to reduce noise pollution. The facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) - The principal purpose of the facility is to reduce noise pollution in response to a DEQ, federal EPA or a regional air pollution authority imposed condition, or the sole purpose of the facility is to reduce a substantial quantity of noise pollution.

☑ ORS 468.155 (1)(b)(C) – The facility accomplished the substantial reduction or elimination of or redesign to eliminate noise pollution or noise emission sources as defined by rule of the Environmental Quality Commission;

☑ ORS.468.170 (4)(a) - The facility satisfies the intents and purposes of ORS chapter 467 – Noise Pollution.

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 - The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to noise pollution control.

☑ ORS 468.173(3)(h) - The maximum tax credit is 35 percent because the applicant submitted applications between January 1, 2002, and December 31, 2008, inclusively, and the certified cost would not exceed $200,000, or the facility is located in an enterprise zone or economically distressed area at the time of certification.

Reviews

7900

Portland General Electric Company	Facility Cost		**$7,957,667**
C Corp 93-0256820	Percentage Allocable	X	**100%**
	Maximum Percentage	X	**35%**
	Tax Credit		$2,785,183

Description

Noise Pollution Controls

Portland General Electric Company is an energy service provider that owns and operates its Port Westward Generating Plant in Clatskanie, Oregon. The new 400 megawatt, natural gas, combined cycle combustion turbine plant generates electricity with the capacity to serve approximately 300,000 homes.

Natural gas burned in the combustion turbine produces exhaust gases that pass through the heat recovery steam generator (HRSG) where energy (heat) from the exhaust gas converts water to steam used to power the steam turbine generator. The HRSG can also supply additional steam by burning natural gas in the HRSG duct burners.

The applicant claims the following the noise pollution controls at the Port Westward Generating Plant to mitigated noise.

- The applicant constructed noise abatement buildings to enclose the rotating equipment (combustion turbine, steam turbine, gas compressors, and boiler feed pumps), which could not be purchased with low noise features. Enclosures around the gas turbine and steam turbine reduce sound levels outside the enclosure to less than 85 dBA and the buildings provide for a far field noise reduction of approximately 15 dBA. If noise were not a factor at the site, the rotating equipment and processes could operate outside.

- The applicant purchased low noise features on items that need ambient air. This includes silencers in the combustion inlet duct system; and low noise features for the generator step-up transformers, cooling tower, gas turbine inlet air filter and ductwork, circulating water pumps, low noise trim on control valves, and insulation on pipes where velocities through the pipe would create noise.

The principal purpose of the claimed facility is to comply with the Site Certificate, which includes the noise emission limitations in OAR 340-035-0035. The combined noise pollution controls installed at the plant reduce the regulated maximum increase (10 dBA) and maximum overall noise levels (50 dBA) at the nearest residence to the plant.

The applicant and DEQ used the standard method in OAR 340-016-0075 (3) for determining the percentage of the facility cost allocable to pollution control. Port Westward Generating Plant is located in an enterprise zone; therefore, the maximum allowable percentage is 35 percent. The EQC has issued 167 pollution control tax credit certificates to the applicant but none to the Port Westward Generation Plant site. The claimed facility is not a replacement facility.

Applicant Address
121 SW Salmon Street
Portland, OR 97204

Facility Address
Port Westward Generating Plant
810997 Kallunki Road
Clatskanie, OR 97016

References

ORS 468.155[8]

(1)(a) As used in ORS 468.155 to 468.190 and 468.962, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if:

(A) The principal purpose of such use, erection, construction or installation is to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency to prevent, control or reduce … noise…pollution…; or

(B) The sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of … noise…pollution…

(1)(b) Such prevention, control or reduction required by this subsection shall be accomplished by:…(C) The substantial reduction or elimination of or redesign to eliminate noise pollution or noise emission sources as defined by rule of the Environmental Quality Commission; …

OAR 340-016-0060[9]

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate:… (f) Noise Pollution. The facility shall substantially reduce, eliminate or be redesigned to eliminate noise pollution or noise emission sources set forth in OAR 340-035-0005 through OAR 340-035-0100; …

[8] Definitions for ORS 468.155 to 468.190 and 468.962
[9] Eligibility

340-035-0015

As used in this division: ... (23) "Industrial or Commercial Noise Source" means that source of noise which generates industrial or commercial noise levels. ... (24) "Industrial or Commercial Noise Levels" means those noises generated by a combination of equipment, facilities, operations, or activities employed in the production, storage, handling, sale, purchase, exchange, or maintenance of a product, commodity, or service and those noise levels generated in the storage or disposal of waste products. ... (33) "New Industrial or Commercial Noise Source" means any industrial or commercial noise source for which installation or construction was commenced after January 1, 1975 on a site not previously occupied by the industrial or commercial noise source in question.

340-035-0035

(1) Standards and Regulations: ... (b) New Noise Sources: ... (B) New Sources Located on Previously Unused Site: ... (i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).... (ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

Nonpoint Source Pollution Controls

Recommendations and Eligibility Criteria

DEQ recommends the Commission approve a **$8,312** tax credits to **one** applicant that claim an auto tracking system for certification as nonpoint source (NPS) pollution control facility. The facilities are eligible for a tax credit because they meet the criteria in:

☑ ORS 468.155 (1)(a)(B), OAR 340-016-0060 (2)(a) and OAR 340-041-0006(17) – The sole purpose of the facility is to reduce a substantial quantity of NPS.

☑ ORS 468.155 (2)(b), OAR 340-016-0060 (4)(h)(B)(i) – The applicant invested in a method the EQC determined to reduce significant amounts of nonpoint source pollution supported by United States Department of Agriculture or Oregon State University research.

☑ ORS.468.170 (4)(a) – The facility satisfies the intents and purposes of ORS chapters 468A and 468B – Air and Water Pollution.

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 – The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 – The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to NPS pollution control.

☑ ORS 468.173(3)(c) – The maximum tax credit is 35 percent because the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively, and the certified facility is a NPS pollution control.

Reviews

7971

Christopher Monkman

Facility Cost		**$23,749**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$8,312

Description

One – Autopilot RTK model AgGPS 252 auto steer equipment that includes a global positioning system, a variable rate controller, and autoboom shutoff software

Christopher Monkman grows grass seed and onions on his farm near Hermiston, Oregon.

The applicant claims equipment that targets application of pesticides, herbicides, fertilizers, and seed when used with various pieces of agricultural equipment. Targeted application, shown to reduce nonpoint source pollution in OSU research, reduces product and fuel usage by about 25 percent. Oregon State University, OSU Extension Service, states this type of equipment, when used in an irrigated production system, lessens the potential for nonpoint source pollution by reducing overlapping soil disturbances during plowing and eliminating the double application of products.

The EQC has not issued any certificates to the applicant or to the farm; therefore, the claimed facility is not a replacement facility.

Applicant Address
4610 SE Perkins Avenue
Pendelton, OR 97801

Facility Address
29730 Stafford Hansell Road
Hermiston, OR 97838

References

ORS 468.155[10]

(2)(a) As used in ORS 468.155 to 468.190, "pollution control facility" or "facility" includes a nonpoint source pollution control facility.

(b) As used in this subsection, "nonpoint source pollution control facility" means a facility that the Environmental Quality Commission has identified by rule as reducing or controlling significant amounts of nonpoint source pollution.

OAR 340-016-0010[11]

Nonpoint Source Pollution means pollution that comes from numerous, diverse, or widely scattered sources of pollution that together have an adverse effect on the environment. The meaning includes:

(a) The definition provided in OAR 340-041-0006(17); or

(b) Any sources of air pollution that are:

(A) Mobile sources that can move on or off roads; or

(B) Area sources.

[10] Definitions for ORS 468.155 to 468.190 and 468.962
[11] Definitions

OAR 340-016-0060[12]

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate: … (h) Nonpoint Source Pollution. Pursuant to ORS 468.155(2)(b), the EQC has determined that the following facilities reduce or control significant amounts of nonpoint source pollution:

(A) Any facility that implements a plan, project, or strategy to reduce or control nonpoint source pollution as documented:

(i) By one or more partners listed in the Oregon Nonpoint Source Control Program Plan; or

(ii) In a federal Clean Air Act State Implementation Plan for Oregon; or

(B) Any facility effective in reducing nonpoint source pollution as documented in supporting research by:

(i) Oregon State University, Agricultural Experiment Station; or

(ii) The United States Department of Agriculture, Agriculture Research Service; or

(iii) The Oregon Department of Agriculture; or

(C) Wood chippers used to reduce openly burned woody debris; or

(D) The retrofit of diesel engines with a diesel emission control device, certified by the U.S. Environmental Protection Agency.

[12] Eligibility

Water Pollution Controls

Recommendations and Eligibility Criteria

DEQ recommends the EQC approve **$911,890** in tax credits to **10** applicants that claim amalgam separators, wastewater, and storm water controls. Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) – The principal purpose of the facility is to reduce water pollution in response to a DEQ or federal EPA imposed condition or the sole purpose of the facility is to reduce a substantial quantity of water pollution.

☑ ORS 468.155 (1)(b)(B) – The facility accomplishes the prevention, control or reduction by disposal or elimination of industrial wastewater and the use of a treatment works for industrial waste defined in ORS 468B.005.

☑ ORS.468.170 (4)(a) – The facility satisfies the intents and purposes of ORS chapter 468B – Water Pollution.

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 – The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 – The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to water pollution control.

☑ ORS 468.173(3)(h) - The maximum tax credit is 35 percent because the applicant submitted applications between January 1, 2002, and December 31, 2008, inclusively, and the certified cost would not exceed $200,000, or the facility is located in an enterprise zone or economically distressed area at the time of certification.

Reviews

7499

Evraz Inc. NA	Facility Cost		**$1,261,357**
C Corp 94-0506370	Percentage Allocable	X	**100%**
	Maximum Percentage	X	**35%**
	Tax Credit		$441,475

Description

Stormwater controls that include a Vortechs 3000 separation system, a Stormwater Management canister-filter system, vegetative swales, sand filtration, and infiltration galleries

Everaz Inc. NA manufactures steel plate, steel coil and American Petroleum Institute certified large diameter steel pipe used in oil/gas transmission lines.

Runoff from storms and normal Willamette Valley rain patterns previously washed pollutants and sediments from building roofs and paved and unpaved areas into adjacent waterways. Metal dust, petroleum, and abnormal pH water are of concern due to the mill's stormwater discharge to the Willamette River.

KH2A Engineering, Inc., Retec Group, and Goecon Northwest designed a stormwater collection and treatment system that includes piping, hydrodynamic separators, grassy swales, infiltration galleries, filtering systems, and sand filters. The resulting site-specific plan captures and treats stormwater from the roof drains, and paved and unpaved areas around the Coating Line and Spiral Mill Buildings; runoff from the large pipe storage yard; and the new employee parking lot. The design and maintenance of the claimed facility adheres to criteria provided in the City of Portland Storm Water Guidance Manual and addresses Zinc, Total Suspended Solids (TSS), and pH. The applicant claims:

- A Stormwater Management 33-canister filter system and Vortech 3000 separation system removes sediment, trash, free oil and grease and fine-grained particles found in the stormwater runoff from the roof drains and areas around the Spiral Weld Pipe Mill and Coating Mill.

- A series of swales installed at the west side of the pipe storage yard to allow infiltration and reduce runoff velocity. Piping conveys storm water to a sand filter for pretreatment prior to discharge to the City of Portland storm water systems.

- A sand filtration system installed at the pipe transport and storage yard to reduce suspended solids, biological oxygen demand, and total phosphorous. The flow infiltrates into the existing site soil from the sand filter.

- Galleries (17) installed between the pipe storage lanes to reduce velocity and allow runoff to infiltrate through the fine-grained sand subsurface.

- Two linear vegetative swales installed at the new employee parking lot to remove particulate and lot contaminants including oil and grease. The swales allow infiltration and to reduce runoff velocity.

The principal purpose of the stormwater infrastructure is to meet City of Portland requirements and conditions in the applicant's NPDES 1200-COLS stormwater discharge permit.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the facility is located within N/NE Portland, an enterprise zone at the time of certification. The EQC has issued 11 Pollution Control Facilities Tax Credit certificates to the applicant; 9 were issued to the applicant under their former name, Oregon Steel Mills, Inc.

Applicant Address
1000 SW Broadway, Suite 2200
Portland, OR 97205

Facility Address
14400 N Rivergate Boulevard
Portland, OR 97203

7788

Safeway Fuel # 2690
C Corp 94-3019135

Facility Cost		**$69,058**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$24,170

Description

Two 20,000-gallon double-wall underground storage tanks with three compartments, 500 feet of double-wall product piping, spill containment basin, automatic tank gauge system with leak detection and overfill alarm, three sumps, monitoring well, oil/water separator, automatic shutoff valves, and Stage II vapor recovery

Safeway, Inc. is a retail grocer that operates Safeway Fuel# 2690 in Milwaukie, Oregon. The applicant claims environmental components installed at the new retail fueling station. The principal purpose of the claimed components is to meet EPA standards to detect, deter, and prevent spills or unauthorized releases of petroleum and petroleum vapors.

The applicant submitted cost documentation for the claimed facility. DEQ added $8 to the claimed facility cost for an error in calculating the cost of the monitoring wells and subtracted $228.40 for a glue kit unassociated with an eligible component. The applicant accurately subtracted the standard deductions for the equivalent bare steel tank and piping, and the portion of the guage system cost associated with inventory control.

The State of Oregon has issued 22 Pollution Control Facilities Tax Credit Certificates to the applicant. There have been no EPA upgrades to this location; therefore, the claimed facility does not replace a previously certified facility. The maximum tax credit is 35 percent because the applicant submitted the application prior to January 1, 2008, and the facility cost does not exceed $200,000.

Applicant Address
16300 SE Evelyn
Clackamas, OR 97015

Facility Address
Safeway Inc
10550 SE 42nd
Milwaukie, OR 97222

7902

Portland General Electric Company	Facility Cost		**$592,417**
C Corp 93-0256820	Percentage Allocable	X	**100%**
	Maximum Percentage	X	**35%**
	Tax Credit		$207,346

Description

Water Pollution Control Systems

Portland General Electric Company is an energy service provider that owns and operates the Port Westward Generating Plant in Clatskanie, Oregon. The new 400-megawatt, natural gas, combined cycle combustion turbine plant generates electricity with the capacity to serve approximately 300,000 homes.

Exhaust gases from the combustion turbine pass through the heat recovery steam generator (HRSG) where energy (heat) from the exhaust gas converts water to steam used to power the steam turbine generator. The HRSG can also supply additional steam by burning natural gas in the HRSG duct burners. The water cooled condenser cools the resultant water (condensate) from the steam turbine generator prior to circulating the water back to the HRSG.

The heat rejection system (cooling tower and circulating pumps) is a closed loop system that uses ambient air cooling and evaporation to cool the circulating water. This requires less makeup water from the Columbia River. The cooling tower (cooling water blowdown) and steam system discharge wastewater, when needed, to prevent contaminate concentrations that could compromise effective operations and to maintain the condensates purity level for conversion into steam. The wastewater discharges to the wastewater settling basin for treatment before discharge to the Port of St. Helens, and ultimately to the Columbia River.

The applicant claims the following water pollution controls at Port Westward Generating Plant.

- A wastewater treatment system that includes an oil water separator, wastewater sump and pumps, HRSG blow-down sump and pumps, a lined wastewater settlement basin, two wastewater discharge pumps, wastewater heat exchanger with variable speed pumps, and interconnecting piping and valves.

- De-chlorination system to remove the chlorine from the cooling tower and pipes. Periodically, chlorine shock treatments are required to prevent insect and organic matter growth. Claimed components include connections to sulfite chemical storage container, a chlorine analyzer to control the feed rate and monitor chlorine in the discharge, and two metering pumps and interconnecting piping.

- Secondary containment installations that include slab floors surrounded by walls or curbs sufficient to contain a complete spill.

    - For oil, the installations include rainwater check valves and drains to oil water separators. The applicant installed oil containment around the generator step-up transformers, station auxiliary transformers, combustion turbine oil reservoir, and steam turbine oil reservoir.

    - For chemicals, the containment area is coated with a membrane specifically manufactured to resist chemicals stored in the tank. The applicant installed chemical containment around the ammonia tanks, circulating water hypochlorite tank, circulating water acid tank, plant batteries, circulating water anti-scalant tank, and various totes used for circulating water and process water treatment.

- Drains within the plant that have the potential to collect oil from an equipment leak or spill are routed to an oil water separator.

- Water and chemicals used to clean the combustion turbine compressor blades drain to 2 water wash tanks for testing prior to piping to the appropriate treatment or disposal system.

- Storm water at the plant flows to 2 storm water retention ponds according to the site grading and drainage plan. The ponds settle soils and solids while allowing the rainwater to slowly soak into the ground.

The principal purpose of the claimed facility is to meet discharge limitations of the Port of St. Helen's National Pollutant Discharge Elimination System permit for temperatures below 79 degrees Fahrenheit, neutral pH, suspended solids, residual chlorine, and oil and grease; to prevent all storm water flows from site runoff; and to provide secondary containment for oil and chemicals.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). Port Westward Generating Plant is located in an enterprise zone; therefore, the maximum allowable percentage is 35 percent. The EQC has issued 167 pollution control tax credit certificates to the applicant but none to the Port Westward Generation Plant site. The claimed facility is not a replacement facility.

Applicant Address
121 SW Salmon Street
Portland, OR 97204

Facility Address
Port Westward Generating Plant
810997 Kallunki Road
Clatskanie, OR 97016

7941

JRL LLC
LLC 753053633

Facility Cost		**$468,135**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$163,847

Description

A wastewater pre-treatment system

JLR LLC produces value-added meat products. The company thaws frozen beef, turkey, pork and turkey parts then adds seasonings and mechanically cuts or forms the parts into various sizes and shapes. Processing includes cooking, individually quick freezing, and packaging. The processing areas and equipment require cleaning and maintenance before, during, and after processing. Pollutants in the wastewater include biological oxygen demand (BOD), total suspended solids (TSS), fats, oils, and grease. Drains and pipes in the processing area direct the wastewater to the claimed facility.

The applicant claims a wastewater pre-treatment system that inlcudes an 11,000-gallon equalization tank; a Hycor rotary screen, serial number RSA2548UBCR; one Beckhart pre-treatment system that includes a 1,000-gallon reaction mix tank (coagulant), 600-gallon lime slurry tank, 1,000-gallon reaction tank (lime slurry), dissolved air pump, 600-gallon polymer mix tank, and a 3,500-gallon clarifier; two 2,600-gallon sludge holding tanks; one 5,500-gallon coagulant tank; and a building enlargement.

The principal purpose of the pre-treatment system is part of the treatment system used to comply with the company's National Pollutant Discharge Elimination System Waste Discharge Permit for BOD, TSS, and pH. The claimed system discharges into a historic wastewater treatment system for additional treatment prior to discharge to the Pudding River or permitted land application. The company disposes of the solids at the Brooks incinerator.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The claimed facility is located in the Woodburn enterprise zone; therefore, it is eligible for the 35 percent tax credit. The EQC has not issued any pollution control facilities tax credit certificates to the applicant or to this location under previous owners.

Applicant Address
PO Box 540
811 N 1st Street
Silverton, OR 97381

Facility Address
380 S Pacific Highway
Woodburn, OR 97071

7952

United Parcel Service
C Corp 36-2407381

Facility Cost		**$175,706**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$61,497

Description

Four 12,000-gallon double-wall steel aboveground storage tanks (serial numbers AE46341, AE46529, AE46530, AE46531) each with one compartment, 1,275 feet of double-wall fiberglass product piping, leak detection systems and monitors, piping sumps and containment under sumps, containment, and an automatic tank gauge system

United Parcel Service, Inc. provides package delivery, specialized transportation, and logistics services. The applicant claims environmental components installed at their Portland Hub fueling station. The principal purpose of the claimed components is to meet EPA standards to detect, deter, and prevent spills or unauthorized releases of petroleum and petroleum vapors.

The applicant submitted cost documentation, drawings, pictures, and contract information for the claimed facility. The applicant accurately subtracted the standard deductions for the equivalent bare steel tank and piping, and the portion of the gauge system cost associated with inventory control. DEQ and the applicant agreed to subtract $33,909 for ineligible costs for ten dispensers that do not have a primary pollution control purpose.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The State of Oregon has not issued any Pollution Control Facilities Tax Credit Certificates to the applicant or to this location. The maximum tax credit is 35 percent because the applicant submitted the application prior to January 1, 2009, and the facility is located in the North/Northeast Portland enterprise zone.

Applicant Address
25201 Paseo De Alicia, Suite 200
Laguna Hills, CA 92653

Facility Address
5550 N Basin Avenue
Portland, OR 97217

7953

Jerzy Wozniak
S Corp 51-0601717

Facility Cost		**$ 914**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$ 320

Description

One - Solmetex model Hg5-001 amalgam separator, serial number HG5-K-18289

Applicant Address
260 Country Club Road, Suite 220
Eugene, OR 97401

Facility Address
Same as the applicant's address.

7967

Drs. Kiley and Roberts LLC
Partnership 93-1313672

Facility Cost		**$1,735**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$ 607

Description

One - REBEC model CatchHG 1005 amalgam separator, serial numbers J2001019, J30016345

DEQ subtracted $116.75 from the claimed facility cost. The applicant claimed estimated equipment costs of $1,691.75 taken from the Customer Order form dated October 31, 2007. Invoice 1680774 dated November 30, 2007, actually charged $1,575.00 for the equipment.

Applicant Address
4440 NE Cornell Road
Hillsboro, OR 97124

Facility Address
Same as the applicant's address.

7968

Robert Keith Frome
Sole Proprietor

Facility Cost		**$ 913**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$ 320

Description

One - REBEC model Catch 400 amalgam separator, serial number J402345/J30016485-07

Applicant Address
35670 Ebenger Street SW
Albany, OR 97321

Facility Address
Same as the applicant's address.

7970

Carter & Company, Inc.
C Corp 93-1158759

Facility Cost		**$34,074**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$11,926

Description

A pre-treatment system that includes an ASA 600 serial number 1.909-685 system, six model S4SB42B67 sock filters, serial number 8105; a 43' by 55' wash slab with 6' walls on three sides, and an 8' by 36' utility building to house the ASA 600

Carter & Company, Incorporated builds and repairs bridges and roadways. The company operates a variety of equipment that needs repairs. The company claims a wastewater pre-treatment system used at their equipment shop to remove grease, hydraulic fluids, and soil from the equipment. The system includes a wash slab with walls to capture contaminated water and direct it through a dirt trap. An immersion pump directs the wastewater to the ASA 600 settling tank where heavy particles settle to the bottom, and the system pumps the wastewater to the flocculation tank. An automatic metering unit adds the correct amount of splitting agent and then agitates it to emulsify the oil. The wastewater progresses through the filtration unit where the six filters capture remaining contaminants. The company disposes of the sludge according to regulations and reuses the pretreated water to wash equipment, or discharges it to the sanitary sewer system. The applicant also claims an 8' by 36' building to house the filtration system.

The sole purpose of the eligible components of the pre-treatment system is to control water pollution. The applicant and DEQ agreed to subtract $10,732 in costs that do not have the sole purpose of water pollution control. The subtracted costs are for the pressure washer and water heating system used to clean the equipment.

The applicant provided invoices and canceled checks to document the claimed cost. The EQC has not issued any certificates to the applicant or to the site; therefore, the installation is not a replacement to a previously certified facility.

Applicant Address
4676 Commercial Street SE Suite 203
Salem, OR 97302

Facility Address
5050 36th Avenue SE
Salem, OR 97317

7977

David C Kreutzer, DMD
93-1331987

Facility Cost		**$1,091**
Percentage Allocable	X	**100%**
Maximum Percentage	X	**35%**
Tax Credit		$ 382

Description

One - Rebec Catch 400 Amalgam Separator, serial number J401874/J30016036-07

Applicant Address
11786 SW Barnes Road, Suite 230
Portland, OR 97225

Facility Address
Same as the applicant's address.

References

ORS 468.155[13]

(1)(a) As used in ORS 468.155 to 468.190 and 468.962, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if:

(A) The principal purpose of such use, erection, construction or installation is to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency or regional air pollution authority to prevent, control or reduce...water ...pollution...; or

(B) The sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of...water...pollution...

(1)(b) Such prevention, control or reduction required by this subsection shall be accomplished by:... (B) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005 ...

ORS 468B.005 provides the following pertinent definitions.

Industrial waste means any liquid, gaseous, radioactive or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources.

Treatment works means any plant or other works used for the purpose of treating, stabilizing or holding wastes.

Wastes means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive or other substances that will or may cause pollution or tend to cause pollution of any waters of the state.

[13] Definitions for ORS 468.155 to 468.190 and 468.962

> Water pollution means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.

OAR 340-016-0060(4)[14]

Eligible Activities. The facility shall prevent, reduce, control, or eliminate industrial waste. The facility shall dispose of, eliminate or be redesigned to eliminate industrial waste and the use of treatment works for industrial wastewater as defined in ORS 468B.005.

For underground storage tank systems,

(g) Spills or Unauthorized Releases. The facility shall be used to detect, defer or prevent spills or unauthorized releases. This does not include any facility installed, constructed or used for cleanup after a spill or unauthorized release has occurred…

[14] Eligibility

Attachment C
Certificate Administration

One taxpayer requested the transfer of a Pollution Control Tax Credit Certificate.

Action	Cert. #	Background
Transfer	11232	Donald R Pollard notified DEQ on September 1, 2008, that he sold his wood chipper to Tim G. Brewer. Mr. Brewer's address is 4720 SW Nash Avenue, Corvallis, Oregon 97333.

Certificate Administration References

315.304 Pollution control facilities.

(8) Upon any sale, exchange or other disposition of a facility, notice thereof shall be given to the Environmental Quality Commission who shall revoke the certification covering such facility as of the date of such disposition. Notwithstanding ORS 468.170 (4)(c), the transferee may apply for a new certificate under ORS 468.170, but the tax credit available to such transferee shall be limited to the amount of credit not claimed by the transferor. The sale, exchange or other disposition of shares in an S corporation as defined in section 1361 of the Internal Revenue Code or of a partner's interest in a partnership shall not be deemed a sale, exchange or other disposition of a facility for purposes of this subsection.

ORS 468.155 (e)(B)

(e) Replacement or reconstruction of all or a part of any facility for which a pollution control facility certificate has previously been issued under ORS 468.170, except:

...

(B) If a facility is replaced or reconstructed before the end of its useful life then the facility may be eligible for the remainder of the tax credit certified to the original facility;

468.185 Procedure to revoke certification; reinstatement.

(1) Pursuant to the procedures for a contested case under ORS chapter 183, the Environmental Quality Commission may order the revocation of the certification issued under ORS 468.170 of any pollution control or solid waste, hazardous wastes or used oil facility, if it finds that:

(a) The certification was obtained by fraud or misrepresentation; or

(b) The holder of the certificate has failed substantially to operate the facility for the purpose of, and to the extent necessary for, preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil as specified in such certificate.

(2) As soon as the order of revocation under this section has become final, the commission shall notify the Department of Revenue and the county assessor of the county in which the facility is located of such order.

(3) If the certification of a pollution control or solid waste, hazardous wastes or used oil facility is ordered revoked pursuant to subsection (1)(a) of this section, all prior tax relief provided to the holder of such certificate by virtue of such certificate shall be forfeited and the Department of Revenue or the proper county officers shall proceed to collect those taxes not paid by the certificate holder as a result of the tax relief provided to the holder under any provision of ORS 307.405 and 315.304.

(4) Except as provided in subsection (5) of this section, if the certification of a pollution control or solid waste, hazardous wastes or used oil facility is ordered revoked pursuant to subsection (1)(b) of this section, the certificate holder shall be denied any further relief provided under ORS 307.405 or 315.304 in connection with such facility, as the case may be, from and after the date that the order of revocation becomes final.

(5) The commission may reinstate a tax credit certification revoked under subsection (1)(b) of this section if the commission finds the facility has been brought into compliance. If the commission reinstates certification under this subsection, the commission shall notify the Department of Revenue or the county assessor of the county in which the facility is located that the tax credit certification is reinstated for the remaining period of the tax credit, less the period of revocation as determined by the commission. [Formerly 449.645; 1975 c.496 §7; 1977 c.795 §7; 1979 c.802 §7; 1987 c.596 §6]

Attachment D
Tax Expenditure Liability Report

When the Environmental Quality Commission issues a Pollution Control Facilities Tax Credit (PCTC) Certificate, the State of Oregon incurs a tax expenditure liability.

The Tax Expenditure Liability Report shows the maximum potential fiscal impact of the EQC's certification of:

- Facilities presented in this staff report,
- Facilities certified in the 2007-09 biennium and
- Wood chipper certifications sub-delegated to the Department.

The amount listed under each year is the maximum potential credit that taxpayers with certificates may use to reduce their Oregon taxes in any one year. This annual limitation is equal to the tax credit divided by the remaining useful life of the facility but no more than ten years. The remaining useful life is the useful life of the facility less the expired period between the date the applicant placed the facility into operation and the Commission approved certification.

Attachment D
Tax Expenditure Liability Report

App #	Tax Credit	Placed in Operation	UL	Remaining UL	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
7972	7,513	2007	7	6		1,252	1,252	1,252	1,252	1,252	1,253	0	0	0	0
7973	67,071	2007	5	4		16,768	16,768	16,768	16,767	0	0	0	0	0	0
7974	94,920	2007	7	6		15,820	15,820	15,820	15,820	15,820	15,820	0	0	0	0
7975	73,641	2007	7	6		12,274	12,274	12,274	12,274	12,274	12,271	0	0	0	0
7977	382	2007	1	1		382	0	0	0	0	0	0	0	0	0
7979	352,376	2007	20	10		35,238	35,238	35,238	35,238	35,238	35,238	35,238	35,238	35,238	35,234
Dec'08	**7,314,959**				**0**	**864,990**	**863,361**	**863,361**	**863,359**	**716,595**	**695,185**	**619,767**	**610,347**	**610,343**	**607,650**
Oct'08	83,766				0	15,335	15,335	15,335	15,335	11,835	8,123	821	821	825	-
Aug'08	598,171				0	116,524	99,882	99,882	99,882	58,355	38,615	30,967	30,966	18,116	4,980
Apr'08	736,916				0	152,610	135,183	134,715	134,711	39,945	39,943	26,447	26,447	26,440	0
Dec'07	7,673,039				1,012,126	989,389	988,255	978,143	913,289	707,136	656,986	644,911	640,644	202,507	0
WC	636,480				152,861	206,431	141,155	85,188	27,792	22,312	370	371	0	0	0
	$17,043,331					**$2,345,279**		**$2,176,624**		**$1,556,178**		**$1,323,284**		**$858,231**	
					$1,164,987		**$2,243,171**		**$2,054,368**		**$1,439,222**		**$1,309,225**		**$612,630**

Attachment D
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7975	73,641	2007	7	6		12,274	12,274	12,274	12,274	12,274	12,271	0	0	0	0
7977	382	2007	1	1		382	0	0	0	0	0	0	0	0	0
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Dec'08	**7,314,959**				**0**	**864,990**	**863,361**	**863,361**	**863,359**	**716,595**	**695,185**	**619,767**	**610,347**	**610,343**	**607,650**
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					$1,164,987		**$2,243,171**		**$2,054,368**		**$1,439,222**		**$1,309,225**		**$612,630**

State of Oregon
Department of Environmental Quality Memorandum

Date: November 24, 2008

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item E, Informational Item: Beneficial Use of Solid Waste
December 11-12, 2008 EQC Meeting

Purpose of Item To inform the Environmental Quality Commission about an upcoming rulemaking regarding the beneficial use of solid waste.

Background

Purpose of the rulemaking

This rulemaking would establish beneficial use rules that encourage and regulate uses of solid waste instead of disposal. Beneficial use typically involves using an industrial waste in a manufacturing process to make a product, to substitute for fill materials or to amend soils. Examples of solid waste uses approved in Oregon under existing rules are:

- Spent foundry sand from the steel industry used as a substitute for virgin sand in making concrete;
- Scrap asphalt roofing shingles used as a component of asphalt pavement;
- Ground rubber from tires used in fabricating floor mats;
- Wood waste from lumber mills used for livestock bedding; and
- Upland placement of dredged sediments used for construction fill.

The use of industrial waste materials conserves energy, reduces the need to extract virgin resources and diverts waste from landfills. Requests for approval of beneficial uses have increased in Oregon as awareness of the potential opportunities to convert wastes to resources increases.

The need for rulemaking

DEQ currently reviews requests for approval of proposed beneficial uses of solid waste, but does not have an appropriate mechanism for responding to or authorizing these requests. Historically, DEQ has used internal guidance, solid waste letter authorizations that serve as short-term disposal permits, or simple staff approvals or rejections to respond to beneficial use proposals. None of these mechanisms provides a sound regulatory basis for decisions under Oregon law. Adopting a beneficial use program by rule would provide a transparent and consistent process for reviewing beneficial uses based on specified criteria.

Beneficial use rules will also make DEQ's decision making more transparent, consistent, predictable, efficient, reliable and defensible. A more streamlined process will save

resources for DEQ and make it easier for applicants to understand and obtain the necessary approvals for beneficial use of waste. This rulemaking would support DEQ's goals of reducing wastes and promoting sustainability.

Scope of the Rulemaking
This rulemaking would establish a process to address proposed beneficial uses of industrial wastes that warrant DEQ review because they contain hazardous substances or raise other potential concerns that are not addressed in solid waste rules. Glass, paper or metal recycling; composting; and wastes applied as soil amendments on agricultural lands are exempted from permit requirements or addressed through existing permit rules and are not intended to be addressed through this rulemaking.

Many other states have beneficial use rules or guidance already in place. Typical elements of beneficial use rules include:

- A definition of "beneficial use";
- Designation of beneficial uses of waste that require limited regulatory contact or approval;
- A case-by-case procedure for approving beneficial uses not designated in the rules;
- A procedure for defining how to start up a new or experimental beneficial use through a limited demonstration/research project;
- Methods for characterizing solid wastes in order to share information effectively with regulators and interested people;
- Standards covering the storage of solid waste prior to its beneficial use;
- Designation of the point in the process when the material is no longer subject to solid waste regulation; and
- Record keeping, reporting and fees.

Key Issues

Use of Risk Assessment
The proposed rules will use risk assessment as a criteria for determining whether hazardous substances in a waste have the potential to cause an adverse impact to human health or the environment. Although the solid waste program currently uses risk-based criteria to evaluate beneficial use requests, existing rules do not cite risk assessment or identify acceptable levels of risk as a basis for those evaluations.

Applying risk criteria may allow concentrations of hazardous substances to increase at a given location through use or land application of a waste. This is because hazardous substance concentrations may exceed naturally occurring background levels, but still be below levels required by DEQ as acceptable and protective of human health and the environment.

Upland Placement of Dredged Materials
This rulemaking is intended to provide an opportunity for DEQ solid waste approval of the upland placement, defined as placement above ordinary high water levels for a water body, of dredged sediments as an alternative to disposal under permit. DEQ's water

quality program regulates dredging and in-water sediment disposal, but coordinates with the solid waste program if the material is proposed for upland placement.

DEQ attempted to address upland placement of dredged sediment through rulemaking in 2002 and guidance in 2006. Those efforts were not successful largely because stakeholders could not agree on appropriate screening criteria. The U.S. Army Corps of Engineers and the Port of Portland have been active in this rulemaking and have supported beneficial use rules to address ongoing concerns for the upland use of dredged materials.

Next Steps DEQ is scheduled to proceed with rulemaking on the beneficial use of solid waste and is working with stakeholders to prepare the draft rules. A public comment period is planned for February 2009, and DEQ plans to bring the proposed rules to the EQC for possible adoption at the June 2009 meeting.

EQC Involvement This informational item is an opportunity for the EQC to learn more about the beneficial use of solid waste, to ask questions of staff and provide comments as DEQ proceeds with the rulemaking.

Approved:

Section: Loretta Pickerell

Division:

Report Prepared By: Tom Roick
DEQ Land Quality
Phone: (503) 229-5502

State of Oregon
Department of Environmental Quality Memorandum

Date: November 24, 2008

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item I, Informational Item: Fine Particulate Air Pollution – Health Effects and Policy Implications
December 11-12, 2008 EQC Meeting

Purpose of Item

The purpose of this informational item is to inform the Environmental Quality Commission about an upcoming rulemaking regarding the fine particulate matter ($PM_{2.5}$) air quality standard. This includes a discussion of the health effects of $PM_{2.5}$, an overview of how EPA set the national ambient air quality standards for $PM_{2.5}$ and key issues to consider when Oregon adopts the $PM_{2.5}$ standard. The EQC will not be asked to take any action at this meeting, but the discussion will help inform staff as they develop the rulemaking proposal.

Background

What is fine particulate?

Particulate matter is a mixture of extremely small particles and droplets in the air. Particulate matter comes from many sources, including home heating, motor vehicle and truck exhaust, industry and wildfires. $PM_{2.5}$ refers to particulate matter 2.5 microns in diameter and smaller. For comparison, the average strand of human hair is 70 microns in diameter.

What are the health effects of fine particulate?

Numerous health studies have found adverse health effects associated with breathing $PM_{2.5}$ particles. Short-term (daily) and long-term (annual) exposure to particles of this size can contribute to the onset or worsening of asthma, heart disease and other circulatory and respiratory conditions. Recent research found that health effects from $PM_{2.5}$ exposure are likely linear with no safe threshold level. That is, adverse health effects are possible at any exposure greater than zero (there is no "grace period" before effects are possible) and these effects increase in direct proportion with increases in exposure. In general, for every 10 $\mu g/m^3$ (10 micrograms of particulate per cubic meter of air) increase in the $PM_{2.5}$ concentration, there can be up to a 1 percent increase in short-term adverse health effects and up to a 10 percent increase in long-term health effects.

For the general population, short (1 hour), very intense (300+ $\mu g/m^3$) exposures to $PM_{2.5}$ are unpleasant and irritating but not life-threatening. While the research is limited, some studies have shown an association between such

exposures and mortality in highly vulnerable populations and elderly individuals with pre-existing severe health conditions.

What are the federal standards?

The Clean Air Act directs the U.S. Environmental Protection Agency to set National Ambient Air Quality Standards for pollutants that the EPA has listed as "criteria pollutants," based on their likelihood of harming public health and welfare. EPA sets national air quality standards for six common air pollutants: ground-level ozone (smog), carbon monoxide, lead, nitrogen dioxide, sulfur dioxide, and particulate matter. The Clean Air Act requires EPA to review, and if necessary, revise air quality standards at least once every five years to ensure that they protect the public from air pollution.

EPA has regulated particulate matter since 1971, and the agency added specific standards for $PM_{2.5}$ in 1997. Based on its latest scientific review, EPA decided to revise the $PM_{2.5}$ standards to provide better health protection, particularly for children, elderly, and people with heart or respiratory problems. In September 2006, EPA strengthened the daily $PM_{2.5}$ standard by lowering the level from 65 $\mu g/m^3$ to 35 $\mu g/m^3$ and retained the annual $PM_{2.5}$ standard of 15 $\mu g/m^3$.

How does this affect Oregon?

EQC must adopt the federal $PM_{2.5}$ standards as part of Oregon's Clean Air Act implementation plan, and DEQ plans to propose rules in the spring of 2009. Two Oregon cities, Klamath Falls and Oakridge, are in violation of the new daily $PM_{2.5}$ standard, and more than a dozen Oregon communities are at risk of violating it. DEQ and the Lane Regional Air Protection Agency (LRAPA) will begin working with Klamath Falls and Oakridge, respectively, to develop $PM_{2.5}$ attainment plans. These plans will identify all sources contributing to violations of the $PM_{2.5}$ standard and will include emission reduction strategies to bring the area into compliance with the new standard.

Key Issues

EPA's process for the establishing the $PM_{2.5}$ standard

The Clean Air Act requires EPA to set ambient air quality standards at a level "requisite to protect the public health with an adequate margin of safety," but is not to consider cost in setting the standards. Rather, cost is to be considered when EPA adopts the rules and guidelines to implement the standards. This process has been referred to as a strict "firewall" between the science and implementation in setting standards.

In revising the $PM_{2.5}$ standard, EPA conducted an extensive assessment of scientific data pertaining to the health and environmental effects associated with

$PM_{2.5}$. EPA usually relies on the recommendations of the Clean Air Scientific Advisory Committee (CASAC), a group of independent scientific and technical experts established by Congress. CASAC reviews the scientific data and makes recommendations to EPA on the adequacy of the existing standards and revisions it determines would be appropriate.

In this case, CASAC recommended lowering the daily $PM_{2.5}$ standard from 65 $\mu g/m^3$ to a level between 30 and 35 $\mu g/m^3$, and recommended that the upper range for the daily standard should only be adopted **in conjunction with** lowering the annual standard from 15 $\mu g/m^3$ to a level between 12 and 13 $\mu g/m^3$. Instead, EPA adopted the upper range of the recommended daily standard (35 $\mu g/m^3$) and did not revise the annual standard. It marked the very first time that EPA did not follow CASAC's recommendations, and raised concerns about whether the firewall between science and implementation had been breached.

Short, intense $PM_{2.5}$ exposure events

EPA has adopted annual and daily $PM_{2.5}$ standards, but the agency has not set a standard for shorter periods such as three hours or one hour. While there is less scientific data about the health effects of very intense exposures to $PM_{2.5}$ over a short period of time, these exposures could pose a risk for highly vulnerable populations. These short, very intense $PM_{2.5}$ exposures can be caused by both natural and man-made burning; such as natural forest fires, prescribed forestry burning, the burning of agricultural crops, orchards or other burning of woody debris.

Key Discussion Items

A key issue for discussion is whether Oregon should consider adopting more protective daily or annual air quality health goals for $PM_{2.5}$ in addition to adopting the federal $PM_{2.5}$ standards as finalized by EPA. Another key issue for discussion is whether Oregon should consider adopting a formal air quality health goal to address short term, intense $PM_{2.5}$ exposure events. Staff will present to the EQC an overview of these topics, including options that could be considered, the differences between a goal and a standard, the possible benefits and consequences of implementing a more protective goal and other practical considerations.

Next Steps

DEQ plans to proceed with rulemaking to propose the new $PM_{2.5}$ standard in the spring of 2009.

EQC Involvement

EQC requested this informational item to learn more about $PM_{2.5}$ and EPA's process for setting the $PM_{2.5}$ standard. The purpose of this item is to provide an

opportunity for early EQC involvement before DEQ begins formal rulemaking.

Attachments None

Available Upon Request Available online:
DEQ's comments on EPA's proposed $PM_{2.5}$ rule:
http://www.deq.state.or.us/aq/planning/docs/CommentsProposedPMNAAQS.pdf

EPA's Final National Ambient Air Quality Standards for Particulate Matter
http://www.epa.gov/ttn/naaqs/standards/pm/data/fr20061017.pdf

Approved:

Section:

Division:

Report prepared by: Rachel Sakata
DEQ Air Quality
Phone: 503-229-5659

Fine Particulate Air Pollution – Health Effects and Policy Implications

Environmental Quality Commission
Agenda Item I, Information Item
December 2008 ~ Portland, Oregon

Purpose

- Provide the EQC with a summary of scientific information about the public health impacts of exposure to fine particulate ($PM_{2.5}$) matter
- Present information on EPA's current $PM_{2.5}$ standard
- Discuss options for moving forward

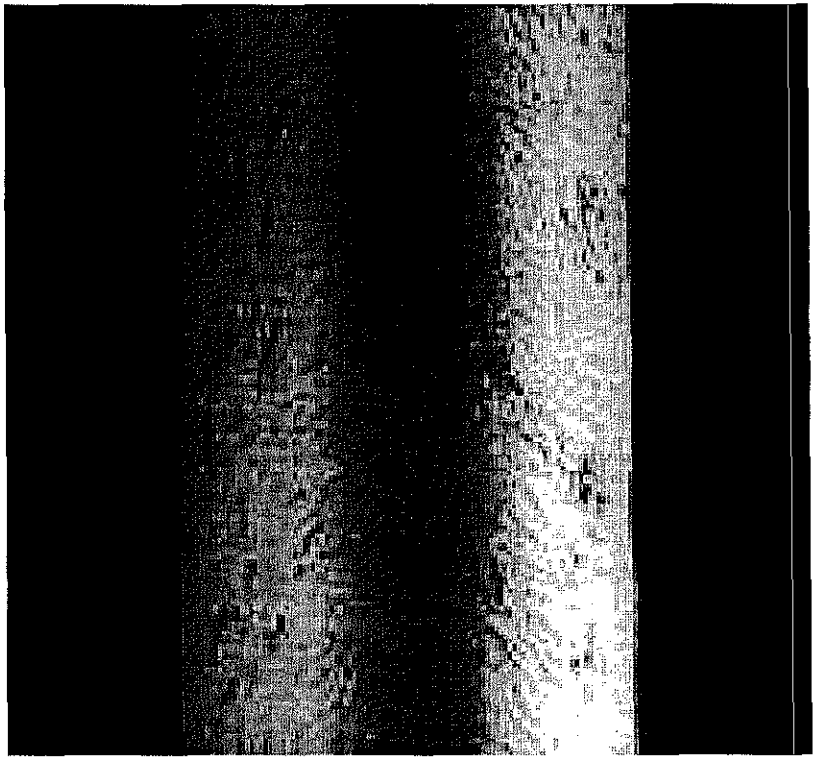
Particulate Matter (PM)

- Primary PM is an air-suspended mixture of solid particles varying in:
  - Size, Surface area, Origin (source), Chemical composition
  - Primary PM is chief concern in Oregon
  - Secondary PM (liquid particles [droplets] formed from gases) is principal concern in Eastern U.S.

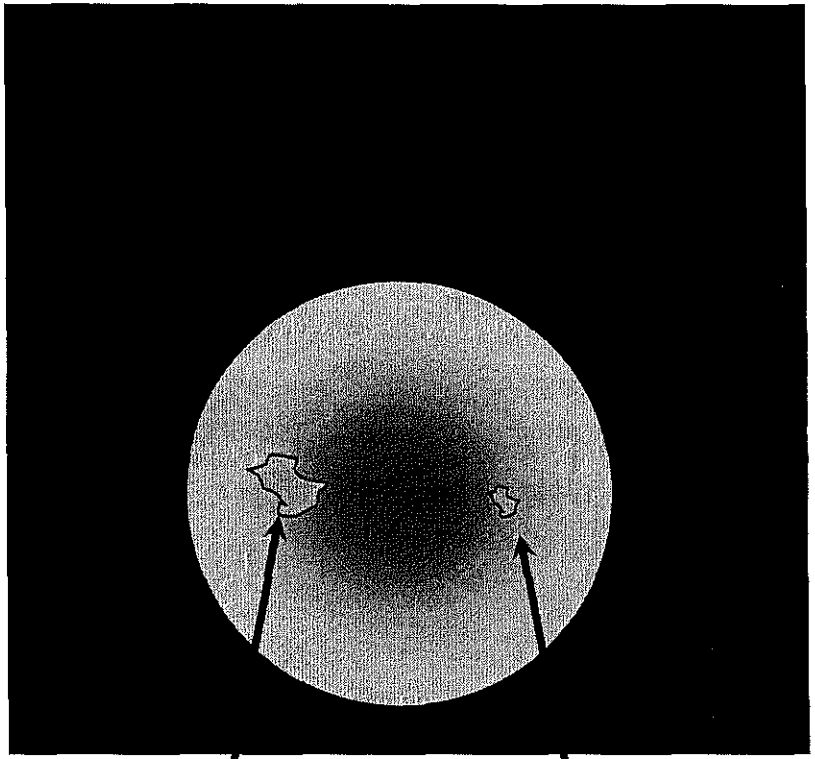
- Health-based size classes
  - $PM_{2.5}$ (fine)
    - Mass concentration of all particles less than 2.5 μm
  - PM_{10} (thoracic)
    - Mass concentration of all particles less than 10 μm

Relative Size of Particulate Matter

M. Lipsett, California OEHHA



Human Hair
70 μm average

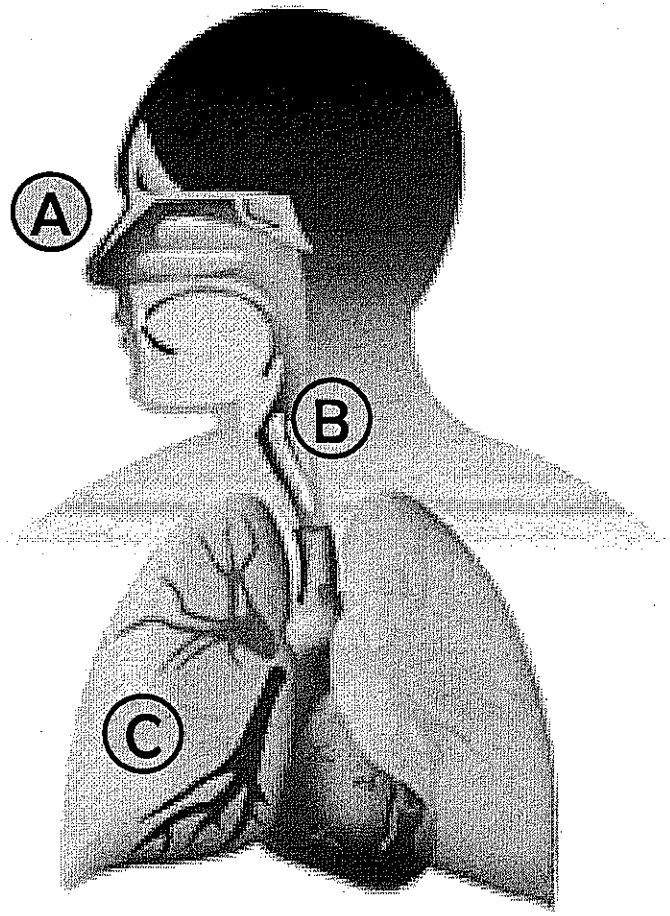


PM_{10}
(10 μm)

$PM_{2.5}$
(2.5 μm)

PM Size & the Respiratory System

- Size determines how PM interacts with the system
  - (A) Nose filters out larger PM (> 5 μm)
  - (B) Throat moves mid-sized PM (2-5 μm) up towards mouth, where can be spit out
  - (C) Fine PM (1-3 μm) deposits in the lungs
- Deposited particles may accumulate, react, be cleared, or absorbed



$PM_{2.5}$ Sources

- Fossil fuel combustion
  - Gasoline & diesel motor vehicles
    - Secondary nitrates
    - Co-exposure to NO_2 and CO
  - Oil- and coal-fired power generation
    - Secondary sulfates
    - Co-exposure to SO_2

- Biomass combustion
  - Wood stoves
  - Residential fireplaces
  - Forest fires (wild & prescribed burns)
  - Agricultural burning

Why is $PM_{2.5}$ Toxic?

- Due to size alone or features related to size?
  - Number, Surface area, Soluble proportion
- Due to chemical composition?
  - Chemicals in the particle
    - Carbon, Sulfates & nitrates, Transition metals , Crustal material
  - Chemicals on the particle
    - Polycyclic aromatic hydrocarbons (PAHs)
      - Particularly nitro- and oxy-derivatives (carcinogens)
    - ⇧Organic carbon and PAH related to ⇧ inflammatory potential
- Some combination of size & chemistry?
  - Maybe, but no unequivocal answers (yet)

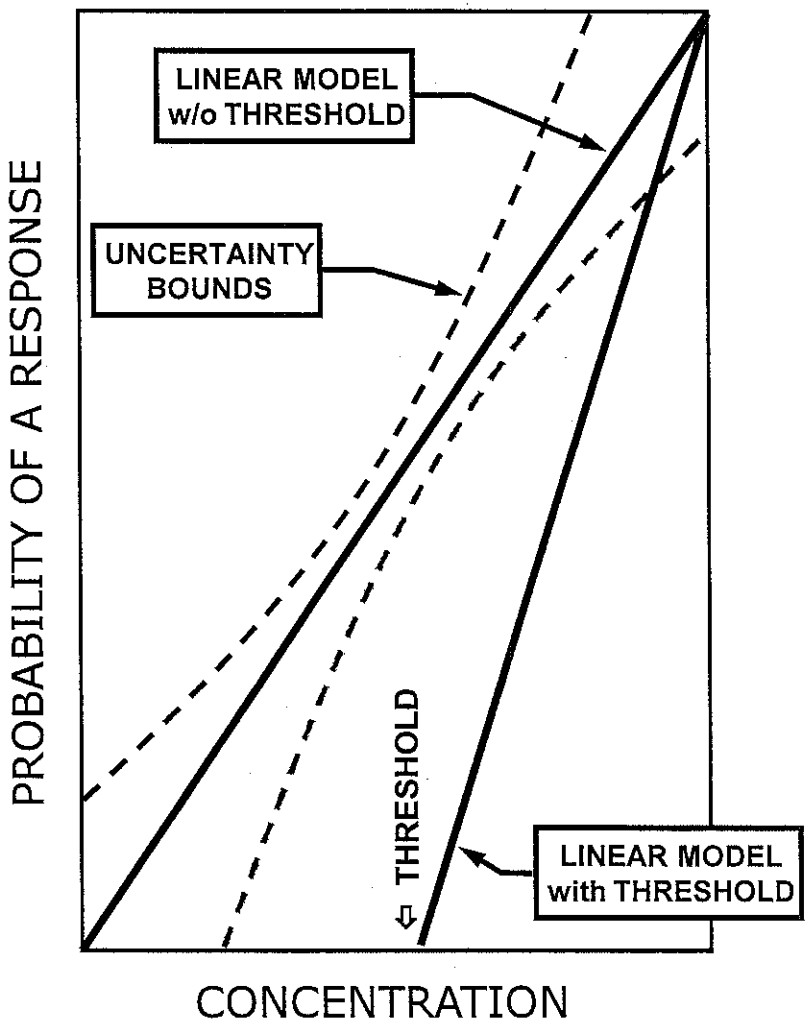
Does Source Influence Toxicity?

- PM is really a "...mixture of mixtures..."
  - Overall, not enough is known to reliably relate specific effects to specific sources.
  - No one physical or chemical property can explain array of reported adverse health effects.

- But primary PM from fossil fuel combustion is likely a key contributor to adverse health outcomes.
  - Particularly vehicular emissions, because of:
    - High content of organic carbon & some metals
    - Large PM surface area
    - Large number of particles
    - Nitro- and oxy-derivative polycyclic aromatic hydrocarbons

Concentration-Response Relationship

- Describes the relation between a health effect and particulate concentrations.
- For $PM_{2.5}$ recent research suggests it's linear, with no threshold (i.e., no "grace period") before effects start.
- If so, improvements in air quality would result directly (i.e., "1 for 1") in corresponding public health improvements.



Consequences of a Linear Relationship

- Each 10 μg/m³ reduction in PM2.5 will decrease:
  - Daily sickness & mortality (all causes) by ≤1%;
  - Long-term sickness & mortality (all causes) by ≤10%.

- Although adverse effects are possible all the way down to zero, there is likely a point (e.g., below background) at which mandating or achieving cleaner air is impossible or impractical.

- A factor in any discussion of tradeoffs between "how low", "how safe", and "how feasible".

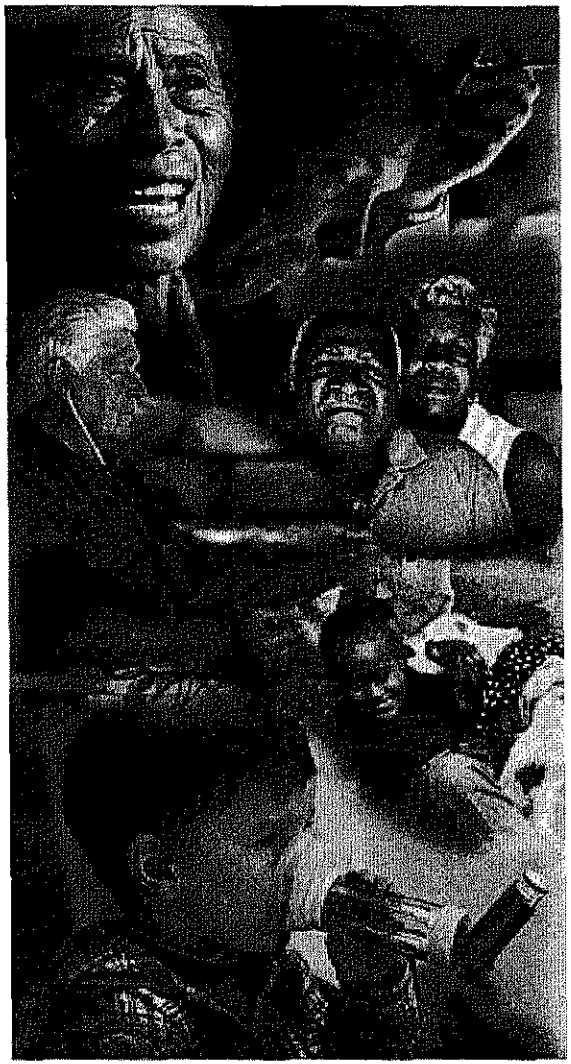
Impact of Short, Intense Exposures

- Small increases over short periods do not cause large increases in mortality or morbidity in healthy persons.

- Majority of population is likely to experience no, or only mild, temporary, PM-related health effects.
  - About 33% of the population is potentially "sensitive" to PM-related health effects.
  - A much smaller percentage could be considered "uniquely vulnerable" to PM exposures.
    - Very elderly people with existing cardiovascular or respiratory conditions.

Populations Sensitive to PM

- Sensitivity varies with age
  - High early in life
  - Low during late childhood and early adulthood
  - Rises with age and with onset of cardiac and/or respiratory disease
- Those potentially sensitive
  - People with pre-existing conditions & diseases
  - Young children (< 18 months)
  - Children with respiratory allergies or asthma
  - Older adults (≥ 65 years)



Age and Health Matter

- In uniquely vulnerable populations, measurable changes in the body may take place within hours of increased exposure.
  - "... if you are aged 75 and older, you have a considerably increased risk of having a heart attack within two hours of a high fine particle episode. ...That risk doubles if you already have heart or respiratory disease." (Pope et al., 2002).

- But how this happens (i.e., the mechanism behind this effect) is still unclear.

Scientific Uncertainties

- Science rarely provides absolute answers, so what we can say about the effects PM is challenged by:
  - Strong confounding, measurement error, model building and selection, weak associations, etc.
  - Finding biological plausibility connections between observed effects and possible causes.
  - Inadequate consistency across toxicological & epidemiological evidence.
    - Does what we see in the field align (or not) with results from investigations in the laboratory?

Summary of $PM_{2.5}$ Health Effects

- Seemingly no concentration at which adverse health effects are not possible.
  - A "no threshold" concentration-response relationship.
  - Large (10 μg/m³) changes in concentration relate to:
    - Small (1%) decreases in daily risk of morbidity or mortality;
    - Larger (10%) decreases in long-term risk of morbidity or mortality.

- Short (~ 1 hr), intense (> 300 μg/m³) exposures can harm uniquely vulnerable populations.
  - Current reliance on 24-hour standards undercuts importance of short-term events.
    - Most vulnerable people are a small portion of the general population.

EPA's PM Standard

- The Clean Air Act requires EPA to set national ambient air quality standards (NAAQS) for 'criteria' air pollutants
  - To protect public health with an adequate margin of safety
- EPA must review the scientific information and the standards for each pollutant every five years
  - EPA compiles and evaluates the latest scientific knowledge to assess the health and welfare effects
  - EPA is also required to obtain advice from the Clean Air Scientific Advisory Committee (CASAC) on each review
- EPA is not supposed to consider costs when setting the level of the standard

History of PM Standards & Guidelines

Year	Source	24-hour (ug/m^3)	Annual (ug/m^3)
1987	U.S. EPA - PM_{10} NAAQS	150	50
1997	U.S. EPA - $PM_{2.5}$ NAAQS	65	15
2005	U.S. EPA Staff Paper - EPA Staff Recommendations	25-35 or 30-40	15 or 12-14
2006	CASAC	30-35	13-14
2007	U.S. EPA - $PM_{2.5}$ NAAQS	35	15

Policy Concerns

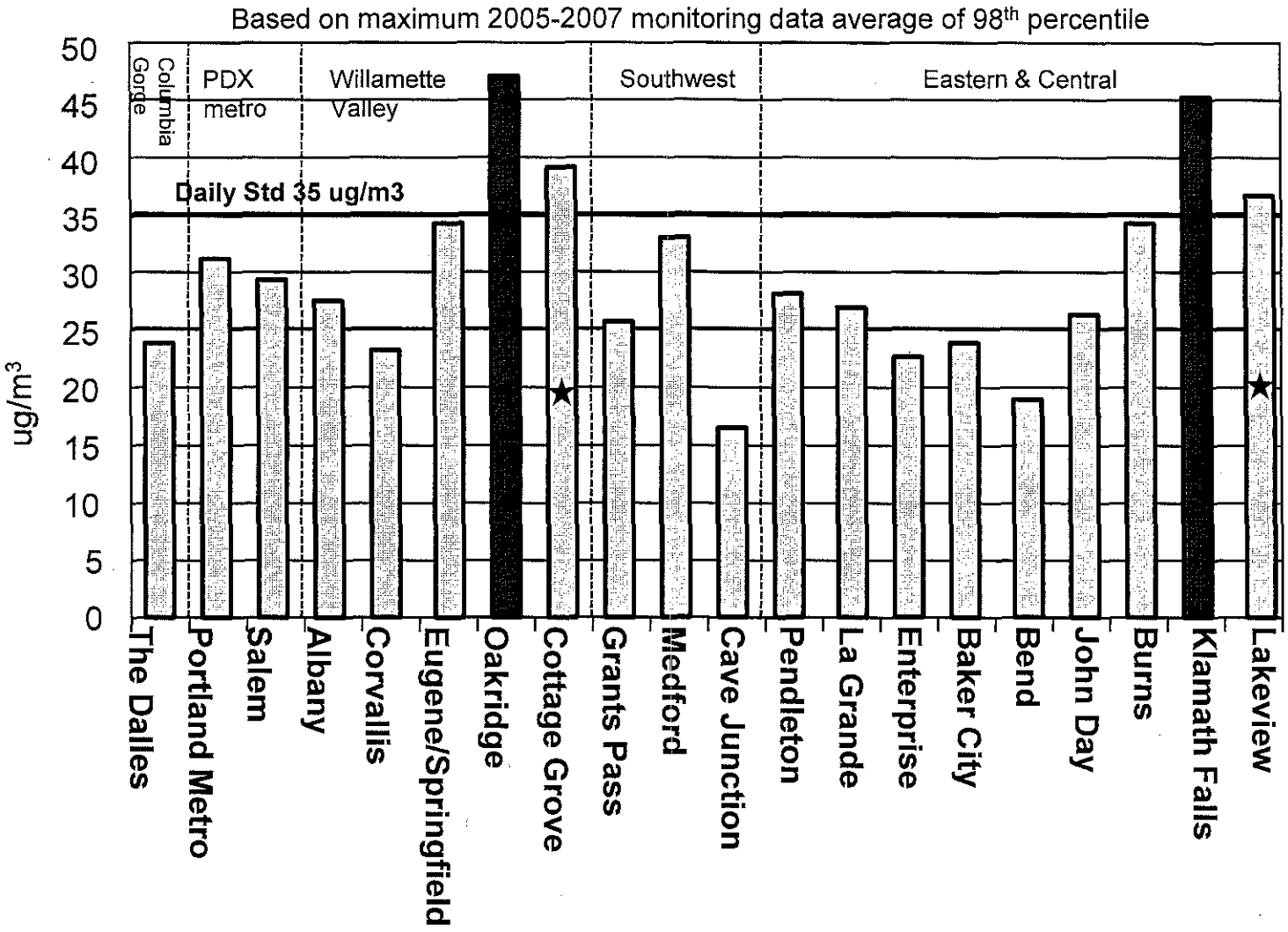
- EPA has changed the way it approaches standard setting.

- For the first time ever, EPA did not heed the advice of Clean Air Scientific Advisory Committee (CASAC).

PM Standard - Implementation

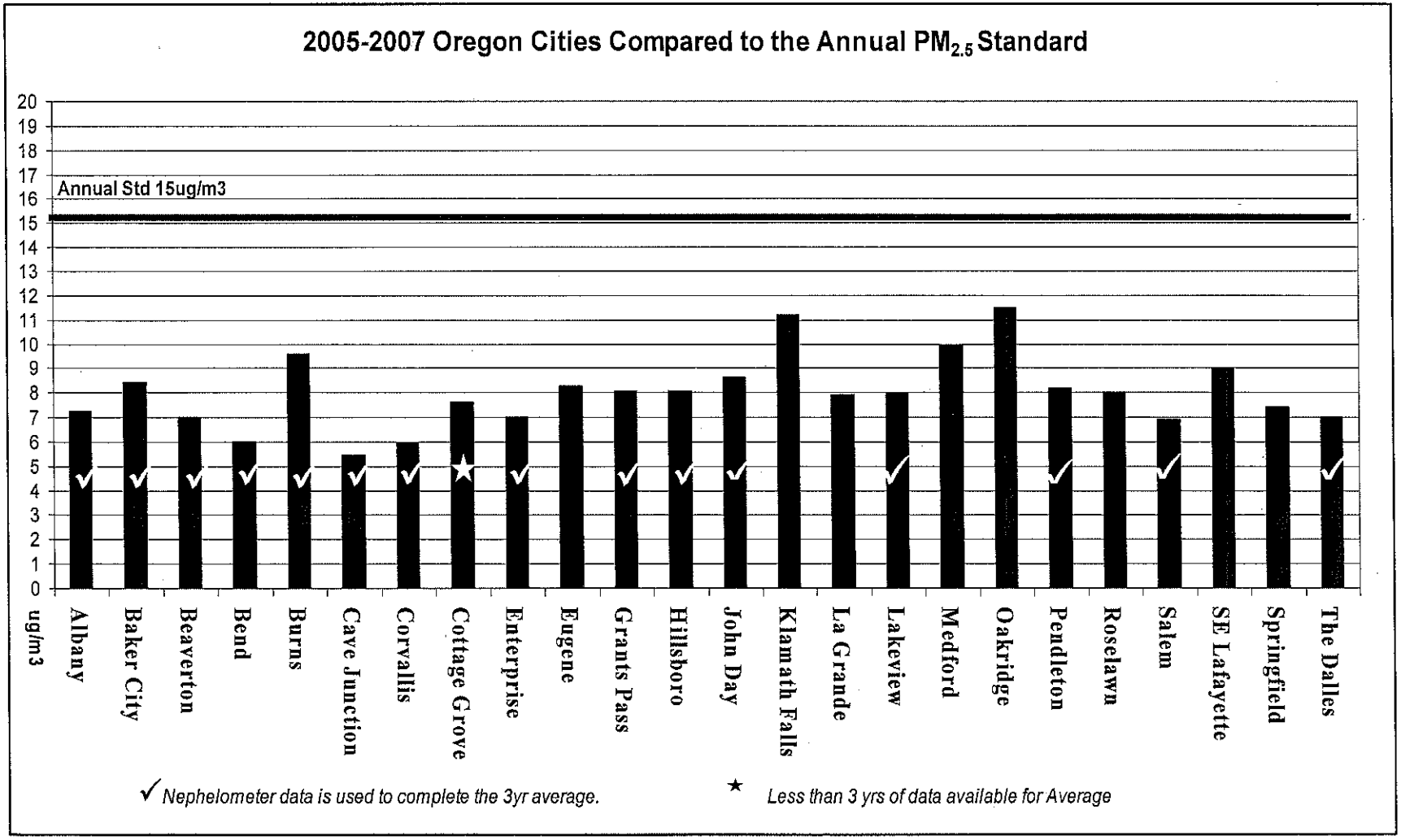
- Areas that do not meet the standard are called "nonattainment" areas
- Requires states to develop state implementation plans (SIP)
- SIP
  - Requires an area to identify all sources contributing to violations of the PM standard
  - Outlines how areas will attain and maintain the standards by reducing air pollutant emissions

Oregon's Landscape Under the Daily (24-hour) PM2.5 Standard



* Less than 3yr of data available for average

Oregon's Landscape Under the Annual PM2.5 Standard



PM2.5 Rule in Oregon

- Oregon must adopt the new federal $PM_{2.5}$ standards
- Should EQC adopt something more stringent than the 24-hour federal standard?
  - State standard (regulatory approach)
  - State goal (voluntary approach)
    - e.g., Washington State has established a 24-hour health goal of 20 ug/m^3
- Should EQC address short (1-hr, 8-hr), intense exposure events?
  - Due to prescribed & wildland fires, biomass burning

Implementation Options for PM2.5 (24-hour)

	Process	How would it work?	Resources and Timing	Pros/Cons
Federal standard	▪ No process	▪ Could establish informal goal to target priority areas	▪ Utilize existing resources	▪ Flexibility – prioritize as resources allow ▪ No formal process in place
State goal (voluntary)	▪ Simple process	▪ Establish priority areas ▪ Collaborative process ▪ Community-specific emission reduction projects	▪ As resources allow - request funding ▪ 1-year effort (to adopting goal)	▪ More protective ▪ Prioritizes incentive money ▪ Require resources ▪ Stigmatize local communities
State standard (regulatory)	▪ Extensive process	▪ State nonattainment areas - legal designation ▪ Require plans and timeframes to reach attainment ▪ Establish consequences for nonattainment areas	▪ Request additional staff ▪ 4-year effort (to adoption)	▪ More protective ▪ Prioritizes incentive money ▪ Resource intensive ▪ No federal enforcements ▪ Rigorous scientific review ▪ Stigmatize local communities

Additional Implementation Options for PM2.5 – Short -Term Goal

	What would it look like?	Process	How would it work?

Shorter averaging time goal (e.g., 1-hr, 8-hr) -Voluntary	▪ Establish a goal to prevent or avoid extreme exposures that pose an immediate health threat
	▪ Specifically addresses short, discrete events
	  ▪ Would not designate specific areas as nonattainment
		▪ Simple advisory committee process to identify a short-term goal
		▪ EQC Action Item to set the goal
			▪ Require smoke management
			  ▪ If exceed the goal more than a certain number of times it could require a revision to the Smoke Management Plan
			▪ Communicating with public in advance of certain burning activities (forest fires)

Recommendations

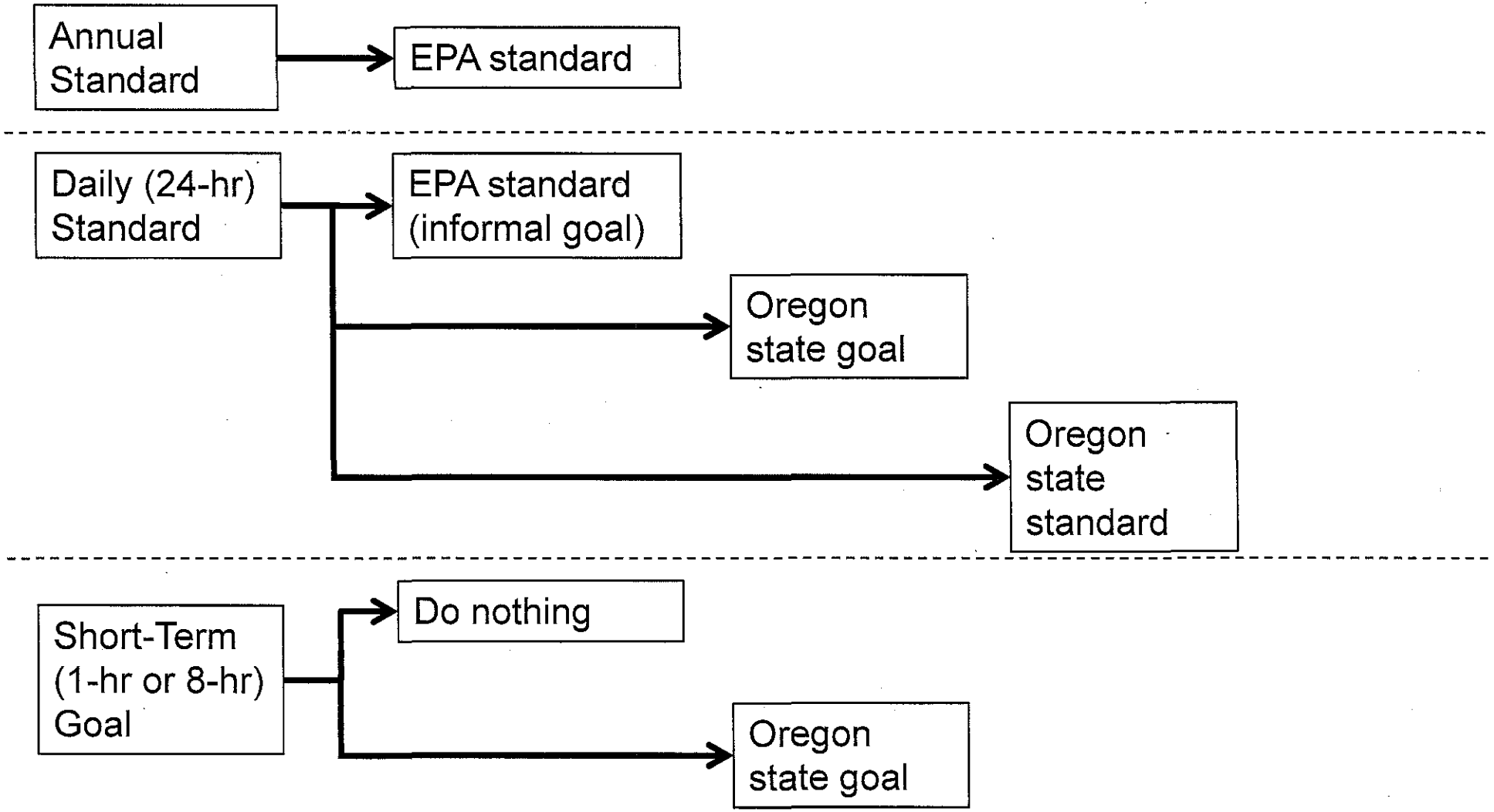
- If EQC wants to go beyond EPA federal standard, DEQ recommends developing a state health goal
  - Formal approach (State-established health goal)
    - Establish policy for a state health goal
    - Could request additional funding to implement goal
  - Informal approach (DEQ informally works with areas of concern)
    - No specific policy; EQC could direct DEQ to informally target areas of concern
    - DEQ works with areas as resources allow

Next Steps

- Spring 2009
  - Propose PM2.5 rulemaking (state adoption of federal PM2.5 standard)

- Fall 2009
  - Bring PM2.5 rulemaking to EQC

Conclusion - Oregon's PM2.5 Implementation Options



State of Oregon
Department of Environmental Quality Memorandum

Date: November 24, 2008

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item K Action Item: 2009-2010 Rulemaking Agenda, December 11-12, 2008 EQC Meeting

Why this is Important

Administrative rules are the mechanism by which many laws are implemented. The Department of Environmental Quality proposes new rules and amendments to existing rules to address evolving needs. The Environmental Quality Commission reviews and adopts all rule changes.

DEQ prepares and updates biennial rulemaking plans on an annual basis, and submits the plans to the EQC so that commissioners can identify rulemaking efforts that will benefit from additional EQC involvement and guidance.

The rules contained in the 2009-2010 Rulemaking Agenda address a broad range of issues across all of the DEQ's programs, many directly related to the DEQ's Strategic Directions. These include rules to reduce emissions from dairies, reevaluation of air toxics benchmarks, and a rulemaking to implement Oregon's CO_2 cap-and-trade program; all of which will improve Oregon's air quality. Proposed rulemakings within the DEQ land quality program include establishing a program of beneficial use for materials currently disposed of as waste, developing a permit to address specific toxics carried by stormwater into the Portland harbor superfund site and a rulemaking updating existing ballast water exchange requirements to reduce the risk of invasive aquatic species. The DEQ water quality program will pursue rulemakings to reflect a new fish consumption rate of 175 grams per day, expand the use of gray water, identify municipal levels for priority persistent toxic pollutants and restore adequate funding for the on-site program.

Thirty four rulemakings make up this agenda, two-thirds of which represent new rulemakings.

Department Recommendation

The Department of Environmental Quality recommends that the EQC review the newly-updated rulemaking agenda to:

1. Identify rules that commissioners wish to follow throughout the rulemaking process;
2. Indicate to the DEQ which rules should include commissioner participation during the public comment process;
3. Specify which rules are likely to require advance informational briefings or education for the commissioners prior to their decision making;
4. Agree on which rulemakings, if any, are routine in nature and don't warrant additional involvement by the EQC.

Key Issues

The primary issue is how the EQC wishes to participate in specific rulemaking activities.

Attachments

A. 2009-2010 Rulemaking Agenda
B. Brief Descriptions of all DEQ rulemakings
C. DEQ's 2009-2010 Rulemaking Agenda (spreadsheet)
D. Rulemakings completed in 2008
E. EQC Comment Matrix

Approved:

Office of the Director: _____

Report Prepared By: Larry McAllister

Larry McAlllister
Phone: (503) 229-6412

2009-2010 DEQ Rulemaking Agenda

Air Quality Program *(15 rulemakings)*

Current AQ rulemakings:

- 2007 Regional Haze Rule
- Transportation Conformity
- Oregon Low Emissions Vehicles - CA Update
- New Particulate Standards for PM 2.5

New/proposed AQ rulemakings:

- Dairy Task Force Best Management Practices
- LRAPA Rule Adoptions (Placeholder pending 2009 legislation)
- VIP Fee Increase and Housekeeping (Placeholder)
- Phase II, Federal Adoptions & Alternatives to Permitting
- Title V CPI Increase & Technical Corrections
- Ambient Benchmarks for Air Toxics
- Field Burning Phase Down & Smoke Management (Placeholder pending 2009 legislation
- GHG Reporting Update & Cap and Trade Program (Placeholder pending 2009 legislation
- Heat Smart (Placeholder)
- Portland Air Toxics Reduction Plan
- Klamath Falls PM2.5 Attainment Plan

Land Quality Program *(9 Rulemakings)*

Current LQ rulemakings:

- Compost Rule
- Beneficial Use of Solid Waste
- Amendments to Federal Hazardous Waste Regulations
- Spill Contingency Planning

New/proposed LQ rules:

- Portland Harbor Industrial Stormwater General Permit (Placeholder)
- Dry Cleaners Program
- Ballast Water Exchange Requirements
- Product Stewardship Rulemaking
- Electronics Waste Recycling

Water Quality Program *(9 rulemakings)*

Current WQ rulemakings:

- 2009 WQ Permit Fee Increase
- WQ Standards-Turbidity
- Standards/Revisions Human Health Criteria (fish consumption)
- State Revolving Fund Program Update

New/proposed WQ rules:

- 1200Z and 1200COLS Permit Revisions
- Restore Onsite Septic System Program
- Gray Water Systems
- Identification of Pollutants Requiring Reduction Plans
- Underground Injection Control

Management Services Division *(1 rulemaking)*

New/proposed MSD Rule:

- Pollution Control Facilities Tax Credit Certificate Administration

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34 total rulemakings comprising the 2009-2010 DEQ Rulemaking Agenda

12 current rulemakings

22 new rulemakings

Brief Descriptions of all Rulemakings

Air Quality Program Rulemakings (15)

Active Rulemakings

1: 2007 Regional Haze Rule

Intention/Goal: This rulemaking will adopt the 2008 Oregon Regional Haze Plan and new controls for the PGE Boardman power plant. The plan and the proposed controls meet the federal regional haze rule and the best available retrofit technology (BART) requirements, which apply to certain older industrial sources.

Why now: The federal regional haze rule requires that states submit plans to EPA that demonstrate how reasonable progress is being made in improving visibility in national parks and wilderness areas over the next 60 years. Included in these plans is a description of how the state is implementing the BART requirements.

Impacts: Primary impact of this rulemaking will come from the proposed controls for PGE Boardman, which is expected to result in increased electricity rates of about three to four percent to PGE customers by the year 2017.

2: Transportation Conformity

Intention/Goal: Transportation conformity rules describe the procedures and requirements for linking transportation and air quality planning.

Why now: DEQ's transportation conformity rules must be updated to incorporate changes in the federal conformity rules. While EPA has not mandated a specific deadline, metropolitan planning organizations requested in writing that DEQ begin updating Oregon's program as soon as possible. In the request, the MPOs noted that the delay in updating the rule significantly increases their costs to develop transportation plans. DEQ responded in writing that we would update the rule as soon as possible.

Impacts: This is a minor rulemaking. Headquarters planning staff will develop the rule and have primary responsibility for ongoing implementation, with periodic consultation with regional staff.

Inactive Rulemakings - awaiting startup

9: Dairy Task Force Best Management Practices and Placeholder for Dairy Tax Credits

Intention/Goal: This rulemaking will implement two recommendations of the Dairy Air Quality Task Force including a program of best management practices to reduce emissions of ammonia, methanol, and odors for dairy industry. If the legislative concept is approved by the Legislature, the rules would also implement a tax credit for voluntary installation of best management practices that are in place for the 2010 tax year.

Why now: In addition to meeting commitments to the task force, this rulemaking is needed to reduce emissions from dairies. The Air Quality Division has requested a new position to work in coordination with the dairy industry and the Oregon Departments of Agriculture and Revenue on this rulemaking.

Impacts: Very little impact is expected for other DEQ divisions.

10: PLACEHOLDER- Lane Regional Air Protection Agency Rule Approvals

Intention/Goal: EPA and Oregon statute require that local air agency rules are aligned with state rules. Lane Regional Air Protection Agency rulemakings impacting the air quality state implementation plan must be reviewed by DEQ and approved by the EQC.

Why now: These are expected Lane Regional Air Protection Agency rule revisions for the coming two years and include: open burning, permit streamlining, air toxics, enforcement and area source NESHAP rules.

Impacts: Lane Regional Air Protection Agency rulemaking requires minimal DEQ involvement because Lane Regional Air Protection Agency does all of the work up to the final staff report to EQC.

11: PLACEHOLDER- Vehicle Inspection Program Fee Increase and Housekeeping

Intention/Goal: The Air Quality Division is proposing to increase the vehicle inspection program fee and to limit free retests for Portland and Medford. The rule would also address minor revisions to clarify and update vehicle inspection rules.

Why now: This rulemaking is contingent upon legislative approval of the Vehicle Inspection Program restoration package based on a VIP fee increase. The fee increase is necessary to avoid reductions in staff and inspection operations and to continue timely service delivery and exceptional customer service.

Impacts: This is a minor rulemaking and no cross program involvement is anticipated.

12: Oregon Low Emission Vehicle Rules - CA Update

Intention/Goal: This rulemaking will align Oregon's low emission vehicle rules with California's revised rules for cars and light duty trucks. The new California rules increasingly emphasize the use of battery-electric and plug-in hybrid vehicles.

Why now: The Clean Air Act requires states that have chosen California's vehicle emission standards to adopt those standards identically. This rulemaking update is needed soon to incorporate changes made since Oregon's LEV rules were adopted in June, 2006.

Impacts: This will be a moderate rulemaking supported by LEV program fees. It will not affect other programs.

13: New Particulate Standards for PM2.5

Intention/Goal: EPA has finalized revisions to national ambient air quality standards for particulate by lowering the existing fine particulate matter (PM2.5) standard, including changes to the federal new source review and prevention of significant deterioration programs for PM2.5. This rulemaking will update Oregon's particulate matter standards to be in compliance with the federal standards.

Why now: Oregon must adopt EPA's revised standard for PM2.5 to meet federal requirements. This rulemaking is also needed to reduce emissions and protect public health in Oregon.

Impacts: This is a major rulemaking and will require Air Quality Division headquarters and regional office resources to jointly develop and implement the rulemaking. The rulemaking will require the updating of new source review and other permitting rules to address the new standard. Ultimately, the PM2.5 requirements will have to be incorporated into all affected permits.

14: Phase II of Federal Adoptions and Placeholder for Alternatives to Permitting

Intention/Goal: This rulemaking is phase II of the new federal areas source NESHAPs required to maintain NESHAP delegation. These NESHAPs will regulate dry cleaners, auto body shops, surface coating, metal fabrication, plating and polishing.

Why now: These regulations have compliance deadlines beginning June 15, 2010. In addition, the rulemaking could implement the "alternatives to permitting" legislative concept if approved by the Legislature. The federal requirement will increase the number of Air Contaminant Discharge Permit sources by 3,000 or more and DEQ requested additional staffing via a policy package. The additional staff will be funded by permit fees or registration fees.

Impacts: This rulemaking would be completed by Air Quality Division staff at headquarters.

15: Title V Fees Consumer Price Index Increase and Technical Correction Placeholder

Intention/Goal: This rulemaking will increase Title V fees by the Consumer Price Index.

Why now: The rulemaking will also implement a legislative concept, if approved by the 2009 Legislature. The legislation and subsequent rule will fix a problem with current statutory language and base the Consumer Price Index on the period described in the Clean Air Act, allowing the EQC to set a two-year fee schedule that will fully cover program costs.

Impacts: This is a minor air quality rulemaking with no cross program involvement.

16: Update Ambient Benchmarks for Air Toxics

Intention/Goal: This rulemaking will fulfill requirements specified in OAR 340-246-0090 (2)(i) requiring DEQ to reevaluate the air toxics benchmarks every five years.

Why now: If adopted in 2010 as planned, it would be four years since final approval of the current benchmarks, but updates are needed to coincide with the Portland Air Toxics Solutions work and evaluate some of the more important and controversial benchmarks.

Impacts: This rulemaking involves minor updates that do not change the functionality of the Oregon Air Toxics Program so no new resources are needed for implementation. We do not anticipate significant cross program involvement, but we will maintain clear communication with cleanup, drycleaner, and other DEQ programs that use health risk information about these same pollutants in other media.

17: PLACEHOLDER- Field Burning Phase Down and Smoke Management Coordination

Intention/Goal: The legislative concept phases out field burning in the Willamette Valley over three years (2009, 2010, 2011), authorizes the EQC to expand the field burning program to additional counties if needed to meet federal Clean Air Act requirements and directs DEQ to provide technical and policy support for smoke management programs run by other agencies.

Why now: This placeholder rulemaking is based on a concept being proposed to the 2009 Legislature. The division has requested two new positions to develop and implement this moderate rulemaking.

Impacts: This rulemaking will be completed by Air Quality Division planning staff at headquarters.

18: PLACHOLDER- Greenhouse Gas Reporting Update and Cap & Trade Program

Intention/Goal: This placeholder rulemaking is contingent upon Legislative approval. The legislation and subsequent rules would establish legal authority to adopt and implement a cap-and-trade program, clarify legal authority to require reporting from certain sources that emit greenhouse gases, address administrative issues such as data verification and data management by a third party and add fees to fund the reporting and cap-and-trade programs. Additional legislation may provide authority for complementary measures, such as a low carbon fuel standard.

Why now: There are potential gaps in EQC's authority to require certain reporting of greenhouse gas emissions from electricity use in Oregon. There are also potential gaps in EQC's authority to require reporting from various businesses whose customers are sources of greenhouse gas emissions. This rulemaking will address these issues allowing Oregon to more effectively implement greenhouse gas reporting.

Impacts: This is a major rulemaking that will require a much higher than normal level of public involvement. The division has requested a new section entirely dedicated to working on climate change, including staff for Land Quality, Water Quality and Management Services Divisions. DEQ will need new fees and general fund money to support the work.

19: PLACEHOLDER- Heat Smart

Intention/Goal: This placeholder rulemaking is contingent upon Legislative approval. The legislation and subsequent rules would expand the areas where DEQ and local governments may provide grants and loans to replace uncertified woodstoves, direct civil penalties for open burning and asbestos violations into the Heat Smart Fund, require removal of uncertified wood stoves upon the sale of residential property, allow EQC to establish emission standards for wood stoves and other solid fuel burning devices that are exempt from federal standards and make other housekeeping changes.

Why now: The EPA recently tightened the national ambient air quality standard for particulate matter. Two communities in Oregon (Klamath Falls and Oakridge) are in violation of the revised standard with many other communities at risk for health impacts. Reducing smoke from residential wood heating will be central to DEQ's strategy to restore healthy air quality in Oregon communities.

Impacts: This is a minor rulemaking and no cross program involvement is anticipated.

20: Portland Air Toxics Reduction Plan

Intention/Goal: This rulemaking will implement recommendations of the Portland Air Toxics Solutions Advisory Committee and reduce air toxics risk in the Portland area. The advisory committee will

develop a ten-year plan to reduce air toxics levels to reach air toxics benchmarks adopted by EQC upon the recommendation of DEQ's Air Toxics Science Advisory Committee. Some of the mandatory measures may be implemented through this rule while others may be incorporated into local government ordinances.

Why now: The rule revisions will be required by Oregon law if the Portland Air Toxics Solutions Advisory Committee recommends state regulations as part of the 10-year plan to reach air toxics benchmarks. The Portland Air Toxics Solutions Advisory Committee will begin meeting in late 2008, and will have up to 18 months to complete its recommendations. Therefore, this rulemaking will not begin until late 2009 at the earliest.

Impacts: Both air quality planning and Northwest Region staff will be involved with rule development. New regulatory requirements will be implemented by Northwest Region staff and specifics of the rules will dictate other resources needed in the Office of Compliance and Enforcement, Office of Communications and Outreach and the lab.

21: Klamath Falls PM2.5 Attainment Plan and Supporting Rules

Intention/Goal: The community of Klamath Falls is very anxious to develop an attainment plan to bring the area into compliance with federal air quality standards for fine particulate, PM2.5.

Why now: DEQ has until approximately 2012-13 to submit a plan to EPA. However, the community of Klamath Falls has asked us to develop this plan as soon as possible because the nonattainment designation is a barrier to economic development. In addition to meeting expectations of local government, this rulemaking is needed to reduce emissions and protect public health in Klamath Falls.

Impacts: This is a major rulemaking and will require substantial air quality headquarters and Eastern Region resources to jointly develop and implement the plan.

Land Quality Program Rulemakings (9)

Active Rulemakings

3: Compost Rule

Intention/Goal: This rulemaking will amend Oregon's solid waste composting facility rules. The proposed changes will also clarify financial assurance requirements

Why Now: This will streamline permitting, help DEQ operate more efficiently and reduce the regulatory burden for operations that meet or exceed performance standards.

Impacts: This is a major rulemaking with impacts to both Land and Water Quality Division resources.

4: Beneficial Use of Solid Wastes

Intention/Goal: This rule will establish a process for DEQ review and approval of solid waste beneficial uses to encourage and regulate uses of waste materials in lieu of disposal.

Why now: Oregon does not have an appropriate process for responding to or authorizing requests for beneficial use of solid wastes. Historically, DEQ has used internal guidance, solid waste letter authorizations, or simple staff approvals or rejections to respond to beneficial use proposals. None of these provide a sound regulatory basis for decisions. The rules would support our statutory and agency goals of reducing waste disposal and promoting sustainability.

Impacts: This is considered a major rulemaking and is expected to include some level of involvement with Water Quality and cleanup staff. Specifically Water Quality Division's 401 and 404 permit staff and cleanup staff will be involved in developing language regarding upland dredge sediment placement.

5: Amendments to Federal Hazardous Waste Regulations

Intention/Goal: The primary purpose of the rulemaking is to update Oregon's hazardous waste rules to reflect changes in federal rules from July 2002 through June 2006.

Why now: This action is required under our commitments to EPA and is a condition of maintaining authorization to operate the hazardous waste program in lieu of EPA.

Impacts: Since most of the rules to be adopted are either minor in scope or already in force in Oregon, there are no significant impacts on the regulated community or on DEQ.

Inactive Rulemakings - awaiting startup

22: Spill Contingency Planning

Intention/Goal: Update Oregon Administrative Rules on oil spill planning to align them with current Oregon Revised Statutes.

Why Now: The 2007 Legislature revised oil spill planning fee requirements and modified the definition of oil. This rulemaking effort would reflect the changes that became effective in 2007.

Impacts: Minimal Land Quality Division resources will be required.

23: PLACEHOLDER- Portland Harbor Industrial Stormwater Permit

DEQ is currently in discussions with EPA about whether a new permit will be needed; it seems more likely than not but it may be 6-12 months before a final decision is made.

Intention/Goal: This rule would establish a geographic industrial stormwater general permit for sites discharging into Portland Harbor. The permit would support Portland Harbor remedial objectives in ways that the existing 1200Z would not.

Why now: This rule would allow DEQ to "piggyback" on the 1200Z process. The content and timeline for that approach appears to fit well with Portland Harbor's timeline and objectives.

Impacts: Substantial effort and cross-program coordination between the Land Quality and Water Quality Divisions. The Water Quality Division will most likely be the lead program, but the Land Quality Division is prepared to carry a substantial workload. The Land Quality Division work would be funded through an existing inter-governmental agreement with the City of Portland for a Portland Harbor Stormwater Coordinator.

24: Dry Cleaning Program

Intent/Goal: This rulemaking will include language on collecting dry cleaner fees, make the fee return part of the annual report similar to rules in other programs so DEQ can better enforce against failure to submit a fee return, and address minor housekeeping changes and updates of the original dry cleaner rules.

Why now: In 2009, the Air Quality Division will write new rules for dry cleaners under NESHAP. It is suggested these rulemakings be completed together rather than separately.

Impacts: In addition to Land Quality Division's time and effort in amending these rules, coordination will be required with Air Quality Division if we decide to open both the dry cleaner program rules and the air quality NESHAP rules at the same time.

25: Ballast Water Exchange Requirements

Intention/Goal: This rule updates Oregon's ballast program rules to reflect amendments to the statute in 2007 and pending amendments based on recommendations to the 2009 Legislature from the Task Force on Shipping Transport of Aquatic Invasive Species.

Why now: This rule would resolve conflicts with statute and improve existing regulatory program aimed at reducing risk of aquatic invasive species.

Impacts: Minimal Land Quality Division resources; with some support from headquarters Water Quality Division personnel.

26: Product Stewardship Rulemaking

Intention/Goal: This is a placeholder that would fully implement product stewardship legislation if passed by the 2009 Legislature. The proposed rulemaking would clarify such issues as the exact products out of a product category to be covered, for instance, not all paints are recyclable, what entities would be eligible to return unwanted products, appropriate environmentally sound management practices, implementation dates and department fees.

Why now: The exact timetable for this proposed rulemaking depends on the 2009 Legislative session. If this legislation passes with specific products identified, then DEQ would need to undertake rulemaking shortly thereafter in order to provide guidance to affected producers and manufacturers. If specific products are not identified, then the timetable is much longer. In this case, the first set of proposed rules may not be completed until 2011.

Impacts: Significant. Existing stormwater staff would be involved in rule development and consultation with a statutorily created advisory group. In addition, there is a 2009-11 policy package asking for two new employees to assist with this effort. Hazardous waste staff would likely be involved on a limited basis in some cases.

27: Electronics Waste Recycling Program Requirements

Intention/Goal: Rules are needed to clarify some requirements and address other implementation issues of the statute.

Why Now: The 2007 Legislature intended this new program to be implemented immediately upon passage, with rule adoption occurring later, when needed for implementation. Program will have been in operation for over a year; allowing sufficient time to identify issues and solutions.

Impacts: Some Land Quality Division resources; likely to involve minimal hazardous waste and Land Quality Division regional staff time.

Water Quality Program Rulemakings (9)

Active Rulemakings

6: 2009 Water Quality Permit Fee Increase

Intention/Goal: This rulemaking will increase fiscal year 2010 permit program fee revenue by no more than three percent to help cover salary and benefit costs. DEQ may also consider proposing an electronic reporting fee adjustment for individual National Pollutant Discharge Elimination System permit holders. Permit holders would pay less for using electronic reporting, while those using hard copy reporting would pay more.

Why now: This fee increase is authorized annually by the 2005 Legislature through ORS 468B.051.

Impacts: This is a minor rulemaking with the proposed fee increase based on the inflationary index. No cross program impacts are expected.

7: Water Quality Standards – Turbidity

Intention/Goal: This rulemaking will address the technical, implementation and public involvement issues necessary to develop revisions to the turbidity standard. The rulemaking will respond to the issues identified by the public and an Independent Multidisciplinary Science Team review in 2005.

Why now: Existing standards from the 1970s under and over protect beneficial uses for certain activities and water bodies and do not incorporate more recent data on effects of turbidity on various beneficial uses. This revised standard is necessary to address long standing questions with the current turbidity standard. The 2007 Legislature approved additional water quality standards staff with the understanding that DEQ would use that resource in part to complete the turbidity standard review.

Impacts: This is a major Water Quality Division rulemaking and will also require the involvement of regional staff, the laboratory and the Office of Compliance and Enforcement.

8: Revision of WQ Standards for the Protection of Human Health from Toxic Pollutants

Intention/Goal: This rulemaking revises Oregon's water quality standards for the protection of human health from toxic pollutants. DEQ is recommending that the criteria be based on a fish consumption rate of 175 grams per day. The proposed standards will protect a larger portion of Oregonians from health risks associated with contaminants in surface waters and fish tissue.

An equally important objective of this rulemaking is to provide the tools and procedures that allow for environmentally meaningful, cost effective implementation of the new criteria. For example, under certain circumstances and conditions, the rules may allow a National Pollutant Discharge Elimination System permit holder to obtain a variance if end-of-pipe treatment to meet water quality based effluent limits is unavailable or cost prohibitive. Other implementation policies and procedures will also be evaluated.

Why Now: In 2004, DEQ adopted revised human health criteria for toxic pollutants based on EPA's latest recommendations. As a result of objections to the 2004 criteria by Oregon Tribes, DEQ has completed a two year review of Oregon's fish consumption rate and is now conduct a rulemaking to revise Oregon's human health criteria based on the higher fish consumption rate.

Although DEQ is not under an externally driven deadline to revise its standards, it is in the best interest of both DEQ and EPA to make timely progress in this rulemaking.

Impacts: This will be a major rulemaking including anticipated involvement by Land Quality Division, Air Quality Division and Office of Compliance and Enforcement staff.

Inactive Rulemakings - awaiting startup

28: 1200-Z and 1200-COLS Industrial Stormwater General Permits Revision

Intention/Goal: Reconsider or revise the industrial stormwater permits in response to a lawsuit challenging the Oregon permits and the EPA recently adopting the federal industrial stormwater permit. The new permits will establish benchmarks based on technology and add language to protect water quality standards and impaired water bodies. The permits will revise current requirements related to monitoring and corrective actions where benchmarks are exceeded.

Why now: Permits are being reconsidered due to litigation and the timeline for completion may be directed by a court order.

Impacts: Substantial Water Quality Division staff time will be needed to develop the rules and convene a work group to discuss draft permits. Regional staff will be consulted on an on-going basis regarding implementation of draft permit requirements. The Office of Compliance and Enforcement may also be involved in determining the enforceability of certain requirements such as complying with water quality standards.

29: Restore Onsite Septic System Program

Intention/Goal: Based upon anticipated action by the 2009 Legislature, this rulemaking will increase fees needed to restore 2.5 positions to the onsite program.

Why now: Fees for the onsite septic system program were last increased in 1998 and, while applications have dropped by approximately 30 percent over the past year, DEQ's direct service offices still receive more than 2,500 applications per year. If this package is not funded it will result in closing the Warrenton and Baker City offices and reducing the number of staff in the Grants Pass office and will significantly reduce customer service and efficient homebuilding construction in those areas.

Impacts: Western Region onsite program staff will implement this rulemaking with assistance from Budget Office staff in developing the necessary fiscal statement.

30: State Revolving Fund program update

Intention/Goal: Update the program to better address existing and future water quality financial needs.

Why now: The effectiveness of the loan program could be improved by revisiting several aspects of the program including project ranking criteria, fee amounts, eligibilities, definitions and various other issues. It has been six years since these rules were significantly modified and amendments are now necessary.

Impacts: This rulemaking will be completed by headquarters' staff with some involvement from regions. Although this is considered a major rulemaking, there will be minimal cross-program impacts.

31: Gray Water Systems

Intention/Goal: This rulemaking would allow for the expanded use of gray water systems in Oregon.

Why now: It is expected the 2009 Legislature will introduce a bill to develop and expand DEQ's existing rules to allow for additional options for reusing gray water.

Impacts: Depending on what rules are amended, onsite program staff in Western Region may need to support headquarters staff effort in implementing this rulemaking.

32: Identification of Pollutants Requiring Pollutant Reduction Plans

Intention/Goal: This rulemaking is required by Oregon Senate Bill 737. Once DEQ develops a list of priority persistent toxic pollutants, DEQ must identify the levels of those pollutants that do not have maximum contaminant levels that trigger the requirement for municipalities to develop toxic reduction plans.

Why now: Permittees must complete their toxic reduction plans by July 1, 2011. This rulemaking must be completed in sufficient time for the permittees to develop plans for specific pollutants.

Impacts: A staff person within the Water Quality Division will lead development of the regulation, with involvement in rule development by the Lab, Department of Justice and regional permit staff.

33: Revisions to Underground Injection Control Activities

Intention/Goal: Rulemaking will maintain delegation of a federal program, and expand the program to adopt federal rules on carbon sequestration. The rules will clarify program fees established by the 2007 Legislature, and address the need to link water quality provisions in the groundwater rules with the UIC program.

Why now: It is expected that EPA will adopt new rules in 2009 for the Underground Injection Control Program establishing Class VI wells. The only deadline associated with this proposal is the need to address the expected EPA two year timeline for new rule adoption by January 1, 2011. The rulemaking will also meet Oregon Association of Clean Water Agency commitments associated with the 2007 legislative fee package.

Impacts: Water Quality Division Underground Injection Control program resources including program coordinator, and regional hydrogeologists as needed for technical review. Rulemaking will likely involve Office of Compliance and Enforcement.

Management Services Division Rulemaking (1)

Inactive Rulemaking - awaiting startup

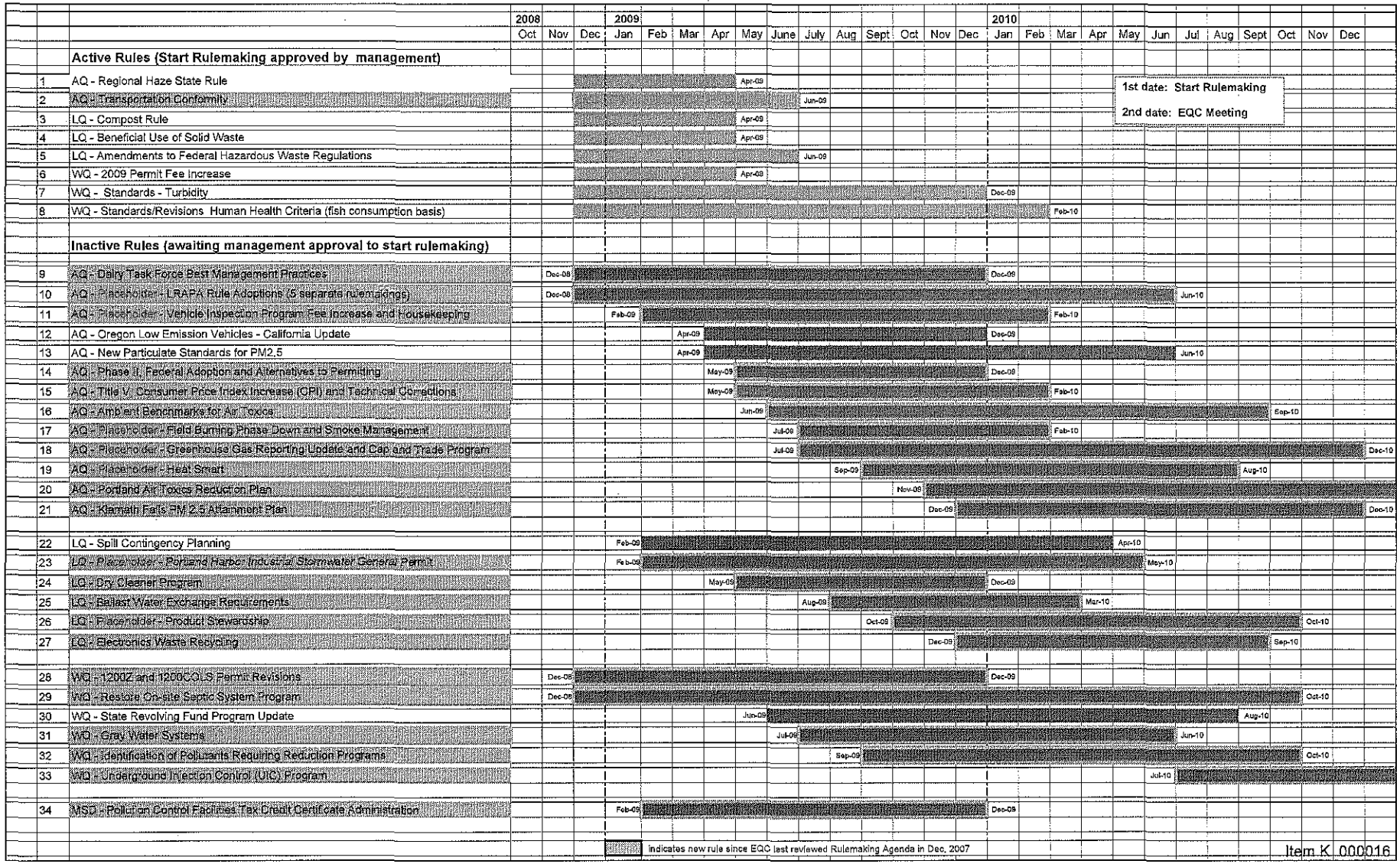
34: Pollution Control Facilities Tax Credit Certificate Administration

Intention/goal: Allow the EQC to sub-delegate Pollution Control Facilities Tax Credit certification administration activities to DEQ.

Why now: The PCTC sunset in 2008 with the final date for applications being December 31, 2008. After EQC has certified the last Pollution Control Facilities Tax Credit, certification administration is negligible and does not warrant a separate action item on the EQC agenda.

Impacts: Minimal workload for Management Services Division and Office of the Director staff to complete this rulemaking.

Department of Environmental Quality's 2009-2010 Rulemaking Agenda



Attachment C

13 Rulemakings Completed in 2008

February

- **Align Underground Storage Tanks Program with Federal Regulations**
- **Division 11, Disclosure of Relationship Between Proposed Rules and Federal Requirements**
- **Clean Water State Revolving Fund Authority**
- **Temporary Rule: Amend Plant Site Emissions Applicability**

April

- **Recycled Water Rule**

June

- **Clean Diesel Incentives**
- **2008 Water Quality Permit Fee Increases**
- **Onsite Program Fee Increases**

August

- **Amend Plant Site Emissions Applicability**
- **Title V, Long Term Funding**
- **Conforming Oregon's Agricultural Air Quality Rules to Federal Clean Air Act Requirements**

October

- **Greenhouse Gas Reporting**
- **Expedited Enforcement**

EQC Involvement in 2009-2010 DEQ Rulemaking

Name of Rulemaking

[#] Indicates new rulemaking for 2009-2010

		No Involvement before rule goes to EQC	Informational Item	Provide on-going information	Individual EQC members attend public hearing	EQC facilitated hearing	Individual Commissioner involvement	On-going interest by EQC	Notes
	Air Quality Rulemakings								
1	AQ - Regional Haze State Implementation Plan Update								
2	AQ - Transportation Conformity Rulemaking								
9	AQ - Dairy Task Force BMP Program Implementation								
10	AQ - **PLACEHOLDER** - LRAPA Rule Adoptions (5 separate rulemakings)								
11	AQ - **PLACEHOLDER** - Vehicle Inspection Program Fee Increase and Housekeeping								
12	AQ - Oregon Low Emission Vehicles - California Update								
13	AQ - New Particulate Standards for PM2.5								
14	AQ - Phase II, Federal Adoption and Alternatives to Permitting								
15	AQ - Title V, Consumer Price Index Increase and Technical Corrections								
16	AQ - Ambient Benchmarks for Air Toxics								
17	AQ - **PLACEHOLDER** - Field Burning Phase Down and Smoke Management								
18	AQ - **PLACEHOLDER** - Greenhouse Gas Reporting Update and Cap and Trade Program								
19	AQ - **PLACEHOLDER** - Heat Smart								
20	AQ - Portland Air Toxics Reduction Plan								
21	AQ - Klamath Falls PM 2.5 Attainment Plan								
	Land Quality Rulemakings								
3	LQ - Compost Rule								
4	LQ - Beneficial Use								
5	LQ - Amendments to Federal Hazardous Waste Regulations								

EQC Involvement in 2009-2010 DEQ Rulemaking

Name of Rulemaking

[#] Indicates new rulemaking for 2009-2010

	No Involvement before rule goes to EQC	Informational Item	Provide on-going information	Individual EQC members attend public hearing	EQC facilitated hearing	Individual Commissioner involvement	On-going interest by EQC	Notes
22 LQ - Spill Contingency Planning Requirements								
23 LQ - Portland Harbor Industrial Stormwater General Permit								
24 LQ - Dry Cleaner Program								
25 LQ - Ballast Water Exchange Requirements								
26 LQ - PLACEHOLDER - Product Stewardship								
27 LQ - Electronics Waste Recycling								
Water Quality Rulemakings								
6 WQ - 2009 Permit Fee Increase								
7 WQ - Standards Turbidity								
8 WQ - Standards Human Health Criteria (fish consumption basis)								
28 WQ - 1200Z and 1200Cols Permit Revisions								
29 WQ - Restore On-site Septic System Program								
30 WQ - State Revolving Fund Program Update								
31 WQ - Gary Water Systems								
32 WQ - Identification of Pollutants Requiring Reduction Programs								
33 WQ - Underground Injection Control (UIC) Program								
Management Services Division Rulemakings								
34 MSD - Pollution Control Facilities Tax Credit Certificate Administration								

State of Oregon
Department of Environmental Quality Memorandum

Date: November 24, 2008

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item L Rule Adoption: Adoption of Federal Air Quality Regulations
December 11-12, 2008 EQC Meeting

Why this is Important

These rules are important to protect human health, ensure that Oregon maintains delegation of federal programs that regulate hazardous air pollutants and new sources, fill gaps created by court decisions about some of the federal rules and improve Oregon's implementation of these programs. A key provision in these rules exceeds federal regulations for reducing benzene exposure from gasoline dispensing facilities.

Department Recommendation

The Department of Environmental Quality recommends that the Environmental Quality Commission adopt the proposed rule amendments to OAR chapter 340, divisions 200, 216, 228, 230, 232, 242, and 244 as set out in attachment A of the staff report. The Department of Environmental Quality also recommends that the EQC amend the State of Oregon Clean Air Act implementation plan (OAR 340-200-0040) to include the amendments to OAR 340-244-0232 through 0252 and the amendments made to OAR 340 Divisions 200, 232, and 242 and that the EQC authorize the Department of Environmental Quality to submit these amendments to the state implementation plan to the U.S. Environmental Protection Agency for approval.

Background and Need for Rulemaking

Area Source National Emission Standards for Hazardous Air Pollutants (NESHAP)

The Clean Air Act requires the U.S. Environmental Protection Agency to identify the 30 hazardous air pollutants emitted from area sources[1] posing the greatest threat to public health in urban areas.

The Clean Air Act also directs the EPA to regulate categories of area sources to ensure 90 percent of the emissions of these 30 hazardous air pollutants are subject to NESHAP. EPA recently adopted 17 area source NESHAPs affecting:

- Flexible polyurethane foam fabrication and production;
- Gasoline terminals, bulk plants, pipeline facilities, and dispensing facilities;
- Glass, clay ceramics, and lead battery manufacturing;

[1] Area sources, also called non-major, are small and mid-sized commercial and industrial operations.

- Hospital sterilizers;
- Metal processing and production; and
- Wood preserving.

Oregon sources are required to comply with the federal NESHAP requirements whether or not the EQC adopts the federal standards.

General Permits
New general air contaminant discharge permits are needed to reduce permitting costs for sources affected by the new area source NESHAPs, many which are small businesses.

New general air contaminant discharge permit fee categories with lower fees are needed for area source NESHAPs with limited requirements and where existing DEQ resources can be leveraged to reduce the cost of implementing the area source NESHAPs.

Gasoline Dispensing Facilities
Benzene is a known carcinogen and is present in high concentrations in many Oregon communities. To reduce benzene exposure in Oregon, standards more stringent than the new federal NESHAP for gasoline-dispensing facilities are needed.

Municipal Waste Combustors
The EPA amended emission guidelines for large municipal waste combustors by tightening them to reflect actual performance levels. To respond to public concern and actual performance levels in Oregon, rule amendments are needed to implement standards more stringent than the newly-tightened federal emissions guidelines.

Utility Mercury Rule
The federal clean air mercury rule was vacated by a federal court on February 8, 2008. The clean air mercury rule provided a mercury cap-and-trade program that applied to coal-fired power plants. Rule amendments are needed to remove mercury trading provisions and add federal monitoring provisions vacated by the federal court ruling.

Effect of Rule

This proposed rule adoption will have the following effects:

New and Amended General Air Contaminant Discharge Permits
To implement the area source NESHAP, the proposed rules would create six new general air contaminant discharge permits for several categories of

sources. Without adopting the new general air contaminant discharge permits, sources affected by the area source NESHAP must have a simple air contaminant discharge permit or standard air contaminant discharge permit. The annual cost for simple and standard air contaminant discharge permits ranges from $1,920 to $7,680, and general air contaminant discharge permits currently range from $720 to $1,872. [See Attachment A-1, OAR 340-216-0060(5), page 2, and Table 1, pages 3-6]

New General Air Contaminant Discharge Permit Fee Categories

The proposed rules would add two new general air contaminant discharge permit fee categories. The new fee categories would apply to area source NESHAPs that have limited requirements, such as the hospital sterilizer NESHAP. The new fee categories would also apply when existing DEQ resources can be leveraged to minimize the cost of implementing an area source NESHAP, such as using existing DEQ land quality inspectors to ensure compliance with the gasoline dispensing NESHAP. The proposed fees for the new fee categories are $120 and $360. [See Attachment A-1, Table 2, pages 7-8]

Gasoline Dispensing Standards

The proposed rules would adopt standards to implement the new federal gasoline dispensing NESHAP and more stringent standards to further reduce benzene exposure in Oregon. The federal NESHAP requires emission controls at high-volume facilities that dispense 100,000 gallons or more per month. The proposed rules would require emission controls at moderate-volume facilities that dispense an average of 40,000 gallons or more per month.

The required emission controls are stage I vapor controls used to capture gasoline vapors emitted during filling of gasoline storage tanks. Regulations currently require Stage I vapor controls in the Portland, Medford and Salem areas to control ozone; they are voluntary in other parts of Oregon.

Additionally, the proposed rules would prohibit "topping off" motor vehicle gasoline tanks during fueling. Topping off causes spillage, gasoline evaporation, high levels of benzene exposure and increased costs to consumers. Topping off can also damage evaporative emissions controls installed on newer vehicles.

Controlling gasoline vapors reduces benzene exposures at and near gasoline dispensing facilities, contributes to continuing compliance with stricter ozone standards and conserves gasoline. Table 1, below, illustrates achievable statewide reductions achieved through this rule adoption.

Table 1
Annual Statewide Reductions from the Filling of Gasoline Storage Tanks (Does Not Include Vehicle Fueling Emissions)

	Benzene Emissions		VOC Emissions		Fuel Savings	
	Tons	Percent	Tons	Percent	Gallons	Percent
Federal NESHAP	12	37	680	37	221,000	0.016
Proposed Rule	14	44	800	44	260,000	0.018
Combined	26	81	1,480	81	480,000	0.037

The proposed rules would also merge separate rules covering gasoline dispensing facilities into one set of rules and defer the requirement that gasoline dispensing facilities obtain an air quality permit until January 2010. [See Attachment A-2, OAR 340-200-0040(2), page 1, OAR 340-232-0070, pages 2-3, OAR 340-232-0520, pages 4-5, OAR 340-244-0232 through 0252, pages 5-11; Attachment A-2a, Tables 4 and 5, pages 1-2; Attachment A-4, OAR 340-244-0030, pages 7-11]

Municipal Waste Combustor Standards

The proposed rules would adopt standards more stringent than federal emission guidelines for large municipal waste combustors in response to public concern, and to reflect actual performance levels.

The EPA amended the emission guidelines for large municipal waste combustors by tightening the emission guidelines to reflect municipal waste combustors' actual performance levels. Covanta, located in Brooks, owns and operates Oregon's only large municipal waste combustor. Covanta's cadmium, lead and dioxin/furan emissions are lower than the new federal guidelines and the proposed rules would lower Oregon's standards to a level that limits how much Covanta's emissions of these pollutants can increase. [See Attachment A-3, OAR 340-230-0300 through 0359, pages 1-38, Table 1, pages 3-6]

Utility Mercury Rule

The proposed rules would amend Oregon's existing utility mercury rule by removing mercury trading provisions vacated by a federal court. Oregon's existing utility mercury rule requires continuous mercury emission monitoring beginning on July 1, 2009 and this rulemaking would insert monitoring requirements formerly referenced by the federal clean air mercury rule. The removal of the federal clean air mercury rule does not reduce the stringency of Oregon's utility mercury rule because the existing rule was already more

stringent than the federal clean air mercury rule. In particular, retaining the requirement that coal-fired power plants control 90 percent of the mercury emissions by 2012 and retaining the 2018 statewide mercury emission cap for coal-fired power plants, would indirectly limit the number of coal-fired power plants that could operate in Oregon. [See Attachment A-5, OAR 340-228-0600 through 0678, page 1-79; Attachment A-5a, Tables 1 and 2, pages 1-2; Attachment A-5b, Equations 1-5, pages 1-2]

New Source Performance Standards (NSPS)
Adopt, by reference, new NSPS affecting petroleum refineries, chemical manufacturers, stationary internal combustion engines and stationary combustion turbines. [See Attachment A-4, OAR 340-238-0040, page 1, OAR 340-238-0060, pages 3-6]

NSPS
Adopt changes made to the federal NSPS through July 1, 2008. [See Attachment A-4, OAR 340-238-0040 through 0060, pages 1-6]

Streamline Early Reduction Provisions
Remove the early reduction provisions from Oregon's federal hazardous air pollutant program and replace them with equivalent federal regulations adopted by reference. [See Attachment A-4, OAR 340-244-0030, pages 7-11, OAR 340-244-0100 through 0180, pages 12-19]

New Area Source NESHAPs
Adopt by reference 17 new federal area source NESHAPs. [See Attachment A-4, OAR 340-244-0030, pages 7-11, OAR 340-244-0220, pages 20-23]

NESHAPs
Adopt changes made to the federal NESHAP through July 1, 2008, excluding changes made to the perchloroethylene dry cleaning NESHAP since July 1, 2006. Adoption of changes made to the perchloroethylene dry cleaning NESHAP will be proposed in a future rulemaking. [See Attachment A-4, OAR 340-244-0030, pages 7-11, OAR 340-244-0220, pages 20-23]

Commission Authority

The commission has authority to take this action under ORS 468.020, 468A.025 and 468A.310.

Stakeholder Involvement

DEQ met with environmental and business associations about proposing rules more stringent than the federal gasoline dispensing NESHAP. DEQ also convened a fiscal impact advisory committee to obtain advice on the effect of the rule. The committee noted that the draft rules would impose a significant

adverse impact on small businesses. The proposed rules were modified based on committee concerns. Please see Attachments G and H for details.

Public Comment

The public comment period extended from July 15, 2008, to August 26, 2008, and included public hearings in Bend, Medford and Portland. No one testified at the first two hearings and one person testified at the third hearing. Seventeen commenters submitted comments by standard mail, fax or e-mail. Attachment B provides the summary of public comments and DEQ's responses.

Key Issues

Gasoline Dispensing NESHAP Stage 1 Vapor Control Threshold

The rules as proposed in the public notice would have lowered the federal threshold requiring stage I vapor controls from 100,000 gallons per month to 20,000 gallons per month. Industrial representatives expressed concern that small rural stations would experience economic hardship if required to install stage I vapor controls. Environmental groups support lowering the threshold for stage I vapor controls to 20,000 gallons per month. Both groups requested that DEQ provide funding assistance to pay for the controls.

Response: The proposed rules would change the threshold for installing stage I vapor controls at gasoline dispensing facilities to an average of 40,000 gallons per month. DEQ estimates demonstrate that changing to a threshold of 40,000 gallons per month would be protective of public health. This will ensure that most small rural facilities are exempted from the requirement to install stage I vapor controls. This will also ensure facilities exceeding protective public health levels are well controlled.

Approximately 60 percent of Oregon's gasoline dispensing facilities have already installed Stage 1 vapor controls. To further reduce benzene exposures in Oregon, the proposed rules would require the operation and maintenance of all Stage 1 vapor controls, regardless of the throughput of the gasoline dispensing facility.

DEQ does not have any funding available to help install stage I vapor controls. Though raising the threshold requiring controls should reduce the number of facilities that need funding assistance, DEQ will continue to explore funding sources.

Municipal Waste Combustor standards

Covanta and industry groups disagree with Oregon adopting emission limits more stringent than federal standards and stated there was no information to support going beyond the federal standards.

Response: Covanta is Oregon's only large municipal waste combustor located in Brooks. DEQ acknowledges industry concern when DEQ proposes standards more stringent than federal requirements. However, it is important to note that in this case EPA has not set emission standards for municipal waste combustor facilities, but instead established emission guidelines. When EPA adopts an emission standard, such as a NSPS or NESHAP, the standard applies whether or not Oregon adopts the standard. Emission guidelines are different in that they are intended as guidance to states based on EPA's review of the best performing sources around the country. In practice, the guidelines set presumptive minimum standards. States are required to set standards at least as protective as the federal emission guidelines based on their own review of technology.

DEQ is recommending the proposed standards based on a review of Covanta's historical performance, which has consistently demonstrated that Covanta's emissions are significantly lower than the federal emission guidelines for cadmium, lead, and dioxins/furans. Moreover, the proposed standards are set conservatively to provide Covanta with ample room for operational flexibility without risk of violation. Because of this, Covanta would not need to install any additional controls to comply with the proposed standards.

Utility Mercury Rule control plan deadline and compliance date
PGE requested revisions to the draft rules to change the following dates:

- Change the mercury control plan submittal date to within 90 days of EPA approval of the regional haze state implementation plan.
- Change the compliance date to the date specified in the EPA-approved regional haze state implementation plan for installation and operation of sulfur dioxide controls. PGE noted DEQ's repeated stated intent to link the mercury rules with the regional haze state implementation plan, as the mercury controls and the sulfur dioxide controls are inextricably linked.

Response: DEQ agrees mercury controls and the sulfur dioxide controls are linked because they use the same baghouse system. The regional haze state implementation plan proposal for the Boardman plant is still under development and it is not yet known what the compliance date will be for the installation of sulfur dioxide controls. Therefore, DEQ plans to propose any adjustment to the mercury control system compliance date during the regional haze rulemaking.

Utility Mercury Rule emission caps
Environmental groups requested a reduction in Oregon's mercury emission cap if the Boardman plant closes.

PGE requested that DEQ eliminate the mercury emissions cap because it was part of the vacated federal cap-and-trade program.

Response: Though the federal requirement that Oregon have a cap on mercury emissions was vacated in early 2008, the proposed rules retain the 60 pounds-per-year mercury cap starting in 2018. Without the mercury emission cap, the utility mercury rule would still ensure that any new coal-fired power plants are well controlled, but would not limit the total amount of mercury emissions from all coal-fired power plants. Since the original utility mercury rule did not allow trading after 2018, retaining the mercury emission cap maintains the original level of stringency in the utility mercury rule before the clean air mercury rule was vacated.

Next Steps

- DEQ will continue to provide outreach and compliance assistance to sources affected by the new area source NESHAP.
- In February 2009, DEQ will submit NSPS and NESHAP delegation requests to EPA.
- Title V and air contaminant discharge permits will be updated with new NSPSs and NESHAPs.
- DEQ will submit an update of its state implementation plan to implement the federal emission guidelines for municipal waste combustors to EPA for approval.

Attachments

A. Proposed Rule Revisions
   1. Air Contaminant Discharge Permits
   2. Emission Standards for Gasoline Dispensing Facilities
   3. Municipal Waste Combustors
   4. New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants
   5. Utility Mercury Rule

B. Summary of Public Comments and Agency Responses
C. Presiding Officer's Reports on Public Hearings
D. Statement of Need and Fiscal and Economic Impact
E. Relationship to Federal Requirements Questions
F. Land Use Evaluation Statement
G. General Permits
   1. Batch Vapor/In-Line Degreasers
   2. Batch Cold/Vapor/In-Line/Degreasers
   3. Bulk Gasoline Plants
   4. Clay Manufacturing
   5. Hospital Sterilizers

6. Secondary Nonferrous Metal
7. Gasoline Dispensing – Stage I
8. Gasoline Dispensing – Stage II
9. Wood Preserving

H. Fiscal Rulemaking Advisory Committee Meeting Notes and Committee Recommendations

I. Rule Changes Since Close of Public Comment Period

Available Upon Request

1. Legal Notice of Hearing
2. Cover Memorandum from Public Notice
3. Written Comment Received
4. Rule Implementation Plan
5. Advisory Committee Membership and any written recommendation
6. List of new and amended NSPS and NESHAP proposed for EQC adoption

Approved:

Section:

Division:

Report Prepared By: Jerry Ebersole
Phone: (503) 229-6974

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 216

AIR CONTAMINANT DISCHARGE PERMITS

340-216-0060
General Air Contaminant Discharge Permits

(1) Applicability.
(a) The Commission may issue a General ACDP under the following circumstances:
(A) There are several sources that involve the same or substantially similar types of operations;
(B) All requirements applicable to the sources can be contained in a General ACDP;
(C) The emission limitations, monitoring, recordkeeping, reporting and other enforceable conditions are the same for all sources covered by the General ACDP; and
(D) The pollutants emitted are of the same type for all covered sources.
(b) Permit content. Each General ACDP must include the following:
(A) All relevant requirements;
(B) Generic PSELs for all pollutants emitted at more than the deminimis level in accordance with OAR 340, division 222;
(C) Testing, monitoring, recordkeeping, and reporting requirements necessary to ensure compliance with the PSEL and other applicable emissions limits and standards; and
(D) A permit duration not to exceed 10 years.
(c) Permit issuance procedures: A General ACDP requires public notice and opportunity for comment in accordance with ORS 183.325 to 183.410. All General ACDPs are on file and available for review at the Department's headquarters.
(2) Source assignment:
(a) Application requirements. Any person requesting that a source be assigned to a General ACDP must submit a written application in accordance with OAR 340-216-0040 that includes the information in OAR 340-216-0040(1), specifies the General ACDP source category, and shows that the source qualifies for the General ACDP.
(b) Fees. Applicants must pay the fees set forth in Table 2 of OAR 340-216-0020.
(c) Source assignment procedures:
(A) Assignment of a source to a General ACDP is a Category I permit action and is subject to the Category I public notice requirements in accordance with OAR 340, division 209.
(B) A person is not a permittee under the General ACDP until the Department assigns the General ACDP to the person.
(C) Assignments to General ACDPs terminate when the General ACDP expires or is modified, terminated or revoked.
(3) Commission Initiated Modification. If the Commission determines that the conditions have changed such that a General ACDP for a category needs to be modified, the Commission may issue a new General ACDP for that category and the Department may assign all existing General ACDP permit holders to the new General ACDP.
(4) Rescission. In addition to OAR 340-216-0082 (Termination or Revocation of an ACDP), the Department may rescind an individual source's assignment to a General ACDP if the source no longer meets the requirements of this rule or the conditions of the permit, including, but not limited to the source having an ongoing, reoccurring or serious compliance problem. Upon rescinding a source's

assignment to a General ACDP the Department will place the source on a Simple or Standard ACDP. The Commission may also revoke a General ACDP if conditions, standards or rules have changed so the permit no longer meets the requirements of this rule.
(5) General ACDPs adopted by reference. The following General ACDPs are adopted by this reference and incorporated herein:
(a) AQGP-001, Hard chrome platers (February 3, 2006)[3];
(b) AQGP-002, Decorative chrome platers (February 3, 2006)[2];
(c) AQGP-003, Halogenated solvent degreasers -- batch cold (December 12, 2008~~August 10, 2001~~)[2];
(d) AQGP-004, Halogenated solvent degreasers -- batch vapor and in-line (December 12, 2008~~August 10, 2001~~)[2];
(e) AQGP-005, Halogenated solvent degreasers -- batch cold, batch vapor, and in-line (December 12, 2008~~August 10, 2001~~)[2];
(f) AQGP-006, Dry cleaners (August 10, 2001)[1];
(g) AQGP-007, Asphalt plants (October 17, 2007)[3];
(h) AQGP-008, Rock crushers (October 17, 2007)[2];
(i) AQGP-009, Ready-mix concrete (October 17, 2007)[1];
(j) AQGP-010, Sawmills, planing mills, millwork, plywood manufacturing and veneer drying (October 17, 2007)[3];
(k) AQGP-011, Boilers (October 17, 2007)[2];
(l) AQGP-012, Crematories (October 17, 2007)[2];
(m) AQGP-013, Grain elevators (August 10, 2001)[1];
(n) AQGP-014, Prepared feeds, flour, and cereal (August 10, 2001)[1];
(o) AQGP-015, Seed cleaning (August 10, 2001)[1];
(p) AQGP-016, Coffee roasters (August 10, 2001)[1];
(q) AQGP-017, Bulk gasoline plants (December 12, 2008~~August 10, 2001~~)[1];
(r) AQGP-018, Electric power generators (August 10, 2001)[2];~~.~~
(s) AQGP-019, Clay ceramics (December 12, 2008)[1];
(t) AQGP-020, Hospital sterilization (December 12, 2008)[4];
(u) AQGP-021, Secondary nonferrous metals (December 12, 2008)[1];
(v) AQGP-022, Gasoline dispensing facilities – stage I (December 12, 2008)[5];
(w) AQGP-023, Gasoline dispensing facilities – stage II (December 12, 2008)[4];
(z) AQGP-024, Wood preserving – (December 12, 2008)[4].
NOTES: [1] The referenced General ACDPs specify that they are Fee Class One under OAR 340-216-0020, Table 2. [2] The referenced General ACDPs specify that they are Fee Class Two under OAR 340-216-0020, Table 2. [3] The referenced General ACDPs specify that they are Fee Class Three under OAR 340-216-0020, Table 2. [4] The referenced General ACDPs specify that they are Fee Class Four under OAR 340-216-0020, Table 2. [5] The referenced General ACDPs specify that they are Fee Class Five under OAR 340-216-0020, Table 2.
NOTE: Except for OAR 340-216-0060(5), this rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the EQC under OAR 340-200-0040.
[ED. NOTE: Tables referenced in this rule are available from the agency.]
Stat. Auth.: ORS 468 & 468A
Stats. Implemented: ORS 468.020 & 468A.025
Hist.: DEQ 14-1998, f. & cert. ef. 9-14-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from

340-028-1725; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01; DEQ 10-2001, f. & cert. ef. 8-30-01; DEQ 4-2002, f. & cert. ef. 3-14-02; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 8-2007, f. & cert. ef. 11-8-07

Table 1

Part A: Activities and Sources

The following commercial and industrial sources must obtain a Basic ACDP under the procedures set forth in 340-216-0056 unless the source is required to obtain a different form of ACDP by Part B or C hereof: (Production and emission parameters are based on the latest consecutive 12 month period, or future projected operation, whichever is higher. Emission cutoffs are based on actual emissions.)

1. ** Autobody Repair or Painting Shops painting more than 25 automobiles in a year.
~~2.Natural Gas and Propane Fired Boilers (with or without #2 diesel oil back-up(a)) of 10 or more MMBTU but less than 30 MMBTU/hr heat input constructed after June 9, 1989.~~
~~3.~~2. Concrete Manufacturing including Redimix and CTB more than 5,000 but less than 25,000 cubic yards per year output.
~~4.~~3. Crematory and Pathological Waste Incinerators with less than 20 tons/yr. material input.
4. Natural gas and propane fired boilers (with or without #2 diesel oil back-up(a)) of 10 or more MMBTU but less than 30 MMBTU/hr heat input constructed after June 9, 1989.
5. Prepared feeds for animals and fowl and associated grain elevators more than 1,000 tons/yr. but less than 10,000 tons per year throughput.
6. Rock, Concrete or Asphalt Crushing both portable and stationary more than 5,000 tons/yr. but less than 25,000 tons/yr. crushed.
7. Surface coating operations whose actual or expected usage of coating materials is greater than 250 gallons per month, excluding sources that exclusively use non-VOC and non-HAP containing coatings (e.g. powder coating operations).

Part B Activities and Sources

The following commercial and industrial sources must obtain either:

a General ACDP, if one is available for the source classification and the source qualifies for a General ACDP under the procedures set forth in 340-216-0060;
a Simple ACDP under the procedures set forth in 340-216-0064; or
a Standard ACDP under the procedures set forth in 340-216-0066 if the source fits one of the criteria of Part C hereof.

1. Aerospace or Aerospace Parts Manufacturing
2. Aluminum Production - Primary
3. Ammonia Manufacturing
4. Animal Rendering and Animal Reduction Facilities
5. Asphalt Blowing Plants
6. Asphalt Felts or Coating
7. Asphaltic Concrete Paving Plants both stationary and portable
8. Bakeries, Commercial over 10 tons of VOC emissions per year
9. Battery Separator Manufacturing
10. Battery Manufacturing and Re-manufacturing

11. Beet Sugar Manufacturing
12. Boilers and other Fuel Burning Equipment over 10 MMBTU/hr. heat input, except exclusively Natural Gas and Propane fired units (with or without #2 diesel backup) under 30 MMBTU/hr. heat input
13. Building paper and Buildingboard Mills
14. Calcium Carbide Manufacturing
15. *** Can or Drum Coating
16. Cement Manufacturing
17. * Cereal Preparations and Associated Grain Elevators 10,000 or more tons/yr. throughput
18. Charcoal Manufacturing
19. Chlorine and Alkalies Manufacturing
20. Chrome Plating
21. Clay Ceramics Manufacturing subject to an Area Source NESHAP
~~21.~~22. Coffee Roasting (roasting 30 or more tons per year)
~~22.~~23. Concrete Manufacturing including Redimix and CTB 25,000 or more cubic yards per year output
~~23.~~24. Crematory and Pathological Waste Incinerators 20 or more tons/yr. material input
~~24.~~25. Degreasers (halogenated solvents subject to a NESHAP)
~~25.~~26. Electrical Power Generation from combustion (excluding units used exclusively as emergency generators)
~~26.~~27. Ethylene Oxide Sterilization
28. *** Flatwood Coating regulated by Division 232
~~27.~~29. *** Flexographic or Rotogravure Printing subject to RACT
~~28.~~30. * Flour, Blended and/or Prepared and Associated Grain Elevators 10,000 or more tons/yr. throughput
~~29.~~31. Galvanizing and Pipe Coating (except galvanizing operations that use less than 100 tons of zinc/yr.)
~~30.~~32. ~~***~~ Gasoline Bulk Plants, ~~and~~ Bulk Terminals, and Pipeline Facilities ~~subject to OAR 232~~
33. ****Gasoline dispensing facilities
~~31.Gasoline Terminals~~
~~32.~~34. Glass and Glass Container Manufacturing
~~33.~~35. * Grain Elevators used for intermediate storage 10,000 or more tons/yr. throughput
~~34.~~36. Grain terminal elevators
~~35.~~37. Gray iron and steel foundries, malleable iron foundries, steel investment foundries, steel foundries 100 or more tons/yr. metal charged (not elsewhere identified)
~~36.~~38. Gypsum Products Manufacturing
39. Hardboard Manufacturing (including fiberboard)
~~37.~~40. *****Hospital sterilization operations subject to an Area Source NESHAP.
~~38.~~41. Incinerators with two or more ton per day capacity
~~39.~~42. Lime Manufacturing
~~40.~~43. *** Liquid Storage Tanks subject to OAR Division 232
~~41.~~44. Magnetic Tape Manufacturing
~~42.~~45. Manufactured and Mobile Home Manufacturing
~~43.~~46. Marine Vessel Petroleum Loading and Unloading
~~44.~~47. Millwork (including kitchen cabinets and structural wood members) 25,000 or more bd. ft./maximum 8 hr. input
~~45.~~48. Molded Container
~~46.~~49. Motor Coach Manufacturing
~~47.~~50. Natural Gas and Oil Production and Processing and associated fuel burning equipment

~~48.~~51. Nitric Acid Manufacturing
~~49.~~52. Non-Ferrous Metal Foundries 100 or more tons/yr. of metal charged
~~50.~~53. Organic or Inorganic Chemical Manufacturing and Distribution with ½ or more tons per year emissions of any one criteria pollutant (sources in this category with less than ½ ton/yr. of each criteria pollutant are not required to have an ACDP)
~~51.~~54. *** Paper or other Substrate Coating
~~52.~~55. Particleboard Manufacturing (including strandboard, flakeboard, and waferboard)
~~53.~~56. Perchloroethylene dry cleaners that do not submit a complete Dry Cleaner Annual Hazardous Waste and Air Compliance Report by June 1 of any given year
~~54.~~57. Pesticide Manufacturing 5,000 or more tons/yr. annual production
~~55.~~58. Petroleum Refining and Re-refining of Lubricating Oils and Greases including Asphalt Production by Distillation and the reprocessing of oils and/or solvents for fuels
~~56.~~59. Plywood Manufacturing and/or Veneer Drying
~~57.~~60. Prepared feeds for animals and fowl and associated grain elevators 10,000 or more tons per year throughput
~~58.~~61. Primary Smelting and/or Refining of Ferrous and Non-Ferrous Metals
~~59.~~62. Pulp, Paper and Paperboard Mills
~~60.~~63. Rock, Concrete or Asphalt Crushing both portable and stationary 25,000 or more tons/yr. crushed
~~61.~~64. Sawmills and/or Planing Mills 25,000 or more bd. ft./maximum 8 hr. finished product
65. Secondary Nonferrous Metals Processing subject to an Area Source NESHAP
~~62.~~66. Secondary Smelting and/or Refining of Ferrous and Non-Ferrous Metals
~~63.~~67. * Seed Cleaning and Associated Grain Elevators 5,000 or more tons/yr. throughput
~~64.~~68. Sewage Treatment Facilities employing internal combustion for digester gasses
~~65.~~69. Soil Remediation Facilities stationary or portable
~~66.~~70. Steel Works, Rolling and Finishing Mills
~~67.~~71. *** Surface Coating in Manufacturing subject to RACT
~~68.~~72. Surface Coating Operations with actual emissions of VOCs before add on controls of 10 or more tons/yr.
~~69.~~73. Synthetic Resin Manufacturing
~~70.~~74. Tire Manufacturing
~~71.~~75. Wood Furniture and Fixtures 25,000 or more bd. ft./maximum 8 hr. input
~~72.~~76. Wood Preserving (excluding waterborne)
~~73.~~77. All Other Sources not listed herein that the Department determines an air quality concern exists or one which would emit significant malodorous emissions
~~74.~~78. All Other Sources not listed herein which would have actual emissions, if the source were to operate uncontrolled, of 5 or more tons a year of PM10 if located in a PM10 non-attainment or maintenance area, or 10 or more tons of any single criteria pollutant in any part of the state

Part C: Activities and Sources

The following sources must obtain a Standard ACDP under the procedures set forth in 340-216-0066:

1. Incinerators for PCBs and / or other hazardous wastes
2. All Sources that the Department determines have emissions that constitute a nuisance
3. All Sources electing to maintain the source's baseline emission rate, or netting basis
4. All Sources subject to a RACT, BACT, LAER, NESHAP adopted in OAR 340-244-0220, NSPS, State MACT, or other significant Air Quality regulation(s), except:
    a. Source categories for which a General ACDP has been issued, and

b. Sources with less than 10 tons/yr. actual emissions that are subject to RACT, NSPS or a NESHAP adopted in OAR 340-244-0220 which qualify for a Simple ACDP

5. All Sources having the Potential to Emit more than 100 tons of any regulated air contaminant in a year
6. All Sources having the Potential to Emit more than 10 tons of a single hazardous air pollutant in a year
7. All Sources having the Potential to Emit more than 25 tons of all hazardous air pollutants combined in a year

Notes:

* Applies only to Special Control Areas
** Portland AQMA only
*** Portland AQMA, Medford-Ashland AQMA or Salem SKATS only
**** Gasoline dispensing facilities are not required to obtain an ACDP prior to January 1, 2010. Gasoline dispensing facilities with exclusively above ground tanks are required to obtain an ACDP only if they have monthly throughput of 10,000 gallons of gasoline per month or more or sell gasoline for use in motor vehicles.
***** Hospital sterilization operations are not required to obtain an ACDP prior to July 1, 2009
(a) "back-up" means less than 10,000 gallons of fuel per year

Table 2

Part 1. Initial Permitting Application Fees: (in addition to first annual fee)

a. Short Term Activity ACDP		$3,000.00
b. Basic ACDP		$120.00
c. Assignment to General ACDP		$1,200.00
d. Simple ACDP		$6,000.00
e. Construction ACDP		$9,600.00
f. Standard ACDP		$12,000.00
g. Standard ACDP (PSD/NSR)		$42,000.00

Part 2. Annual Fees: (Due 12/1 for 1/1 to 12/31 of the following year)

a. Short Term Activity ACDP		$NA
b. Basic ACDP		$360.00
c. General ACDP	(A) Fee Class One	$720.00
	(B) Fee Class Two	$1,296.00
	(C) Fee Class Three	$1,872.00
	(D) Fee Class Four	$360.00
	(E) Fee Class Five	$120.00
d. Simple ACDP	(A) Low Fee	$1,920.00
	(B) High Fee	$3,840.00
e. Standard ACDP		$7,680.00

Part 3. Specific Activity Fees:

a. Non-Technical Permit Modification (1)	$360.00
b. Non-PSD/NSR Basic Technical Permit Modification (2)	$360.00
c. Non-PSD/NSR Simple Technical Permit Modification(3)	$1,200.00
d. Non-PSD/NSR Moderate Technical Permit Modification (4)	$6,000.00
e. Non-PSD/NSR Complex Technical Permit Modification (5)	$12,000.00
f. PSD/NSR Modification	$42,000.00
g. Modeling Review (outside PSD/NSR)	$6,000.00
h. Public Hearing at Source's Request	$2,400.00
i. State MACT Determination	$6,000.00
j. Compliance Order Monitoring (6)	$120.00/month

Part 4. Late Fees:

a. 8-30 days late 5% of annual fee
b. 31-60 days late 10% of annual fee

c. 61 or more days late 20% of annual fee

1. Non-Technical modifications include, but are not limited to name changes, change of ownership and similar administrative changes.
2. Basic Technical Modifications include, but are not limited to corrections of emission factors in compliance methods, changing source test dates for extenuating circumstances, and similar changes.
3. Simple Technical Modifications include, but are not limited to, incorporating a PSEL compliance method from a review report into an ACDP, modifying a compliance method to use different emission factors or process parameter, changing source test dates for extenuating circumstances, changing reporting frequency, incorporating NSPS and NESHAP requirements that do not require judgment, and similar changes.
4. Moderate Technical Modifications include, but are not limited to incorporating a relatively simple new compliance method into a permit, adding a relatively simple compliance method or monitoring for an emission point or control device not previously addressed in a permit, revising monitoring and reporting requirements other than dates and frequency, adding a new applicable requirement into a permit due to a change in process or change in rules and that does not require judgment by the Department, incorporating NSPS and NESHAP requirements that do not require judgment, and similar changes.
5. Complex Technical Modifications include, but are not limited to incorporating a relatively complex new compliance method into a permit, adding a relatively complex compliance method or monitoring for an emission point or control devise not previously addressed in a permit, adding a relatively complex new applicable requirement into a permit due to a change in process or change in rules and that requires judgment by the Department, and similar changes.
6. This is a one time fee payable when a Compliance Order is established in a Permit or a Department Order containing a compliance schedule becomes a Final Order of the Department and is based on the number of months the Department will have to oversee the Order.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 200

GENERAL AIR POLLUTION PROCEDURES AND DEFINITIONS

340-200-0040
State of Oregon Clean Air Act Implementation Plan

(1) This implementation plan, consisting of Volumes 2 and 3 of the State of Oregon Air Quality Control Program, contains control strategies, rules and standards prepared by the Department of Environmental Quality and is adopted as the state implementation plan (SIP) of the State of Oregon pursuant to the federal **Clean Air Act, 42 U.S.C.A 7401** to **7671q**.

(2) Except as provided in section (3), revisions to the SIP will be made pursuant to the Commission's rulemaking procedures in division 11 of this chapter and any other requirements contained in the SIP and will be submitted to the United States Environmental Protection Agency for approval. The State Implementation Plan was last modified by the Commission on December 12, 2008~~August 21, 2008~~.

(3) Notwithstanding any other requirement contained in the SIP, the Department may:

(a) Submit to the Environmental Protection Agency any permit condition implementing a rule that is part of the federally-approved SIP as a source-specific SIP revision after the Department has complied with the public hearings provisions of 40 CFR 51.102 (July 1, 2002); and

(b) Approve the standards submitted by a regional authority if the regional authority adopts verbatim any standard that the Commission has adopted, and submit the standards to EPA for approval as a SIP revision.

NOTE: Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the United States Environmental Protection Agency. If any provision of the federally approved Implementation Plan conflicts with any provision adopted by the Commission, the Department shall enforce the more stringent provision.

Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.035
Hist.: DEQ 35, f. 2-3-72, ef. 2-15-72; DEQ 54, f. 6-21-73, ef. 7-1-73; DEQ 19-1979, f. & ef. 6-25-79; DEQ 21-1979, f. & ef. 7-2-79; DEQ 22-1980, f. & ef. 9-26-80; DEQ 11-1981, f. & ef. 3-26-81; DEQ 14-1982, f. & ef. 7-21-82; DEQ 21-1982, f. & ef. 10-27-82; DEQ 1-1983, f. & ef. 1-21-83; DEQ 6-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 25-1984, f. & ef. 11-27-84; DEQ 3-1985, f. & ef. 2-1-85; DEQ 12-1985, f. & ef. 9-30-85; DEQ 5-1986, f. & ef. 2-21-86; DEQ 10-1986, f. & ef. 5-9-86; DEQ 20-1986, f. & ef. 11-7-86; DEQ 21-1986, f. & ef. 11-7-86; DEQ 4-1987, f. & ef. 3-2-87; DEQ 5-1987, f. & ef. 3-2-87; DEQ 8-1987, f. & ef. 4-23-87; DEQ 21-1987, f. & ef. 12-16-87; DEQ 31-1988, f. 12-20-88, cert. ef. 12-23-88; DEQ 2-1991, f. & cert. ef. 2-14-91; DEQ 19-1991, f. & cert. ef. 11-13-91; DEQ 20-1991, f. & cert. ef. 11-13-91; DEQ 21-1991, f. & cert. ef. 11-13-91; DEQ 22-1991, f. & cert. ef. 11-13-91; DEQ 23-1991, f. & cert. ef. 11-13-91; DEQ 24-1991, f. & cert. ef. 11-13-91; DEQ 25-1991, f. & cert. ef. 11-13-91; DEQ 1-1992, f. & cert. ef. 2-4-92; DEQ 3-1992, f. & cert. ef. 2-4-92; DEQ 7-1992, f. & cert. ef. 3-30-92; DEQ 19-1992, f. & cert. ef. 8-11-92; DEQ 20-1992, f. & cert. ef. 8-11-92; DEQ 25-1992, f. 10-30-92, cert. ef. 11-1-92; DEQ 26-1992, f. & cert. ef. 11-2-92; DEQ 27-1992, f. & cert. ef. 11-12-92; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 8-1993, f. & cert. ef. 5-11-93; DEQ 12-1993, f. & cert. ef. 9-24-93; DEQ 15-1993, f. & cert. ef. 11-4-93; DEQ 16-1993, f. & cert. ef. 11-4-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 19-1993, f. & cert. ef. 11-4-93; DEQ 1-1994, f. & cert. ef. 1-

3-94; DEQ 5-1994, f. & cert. ef. 3-21-94; DEQ 14-1994, f. & cert. ef. 5-31-94; DEQ 15-1994, f. 6-8-94, cert. ef. 7-1-94; DEQ 25-1994, f. & cert. ef. 11-2-94; DEQ 9-1995, f. & cert. ef. 5-1-95; DEQ 10-1995, f. & cert. ef. 5-1-95; DEQ 14-1995, f. & cert. ef. 5-25-95; DEQ 17-1995, f. & cert. ef. 7-12-95; DEQ 19-1995, f. & cert. ef. 9-1-95; DEQ 20-1995 (Temp), f. & cert. ef. 9-14-95; DEQ 8-1996(Temp), f. & cert. ef. 6-3-96; DEQ 15-1996, f. & cert. ef. 8-14-96; DEQ 19-1996, f. & cert. ef. 9-24-96; DEQ 22-1996, f. & cert. ef. 10-22-96; DEQ 23-1996, f. & cert. ef. 11-4-96; DEQ 24-1996, f. & cert. ef. 11-26-96; DEQ 10-1998, f. & cert. ef. 6-22-98; DEQ 15-1998, f. & cert. ef. 9-23-98; DEQ 16-1998, f. & cert. ef. 9-23-98; DEQ 17-1998, f. & cert. ef. 9-23-98; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 21-1998, f. & cert. ef. 10-12-98; DEQ 1-1999, f. & cert. ef. 1-25-99; DEQ 5-1999, f. & cert. ef. 3-25-99; DEQ 6-1999, f. & cert. ef. 5-21-99; DEQ 10-1999, f. & cert. ef. 7-1-99; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-020-0047; DEQ 15-1999, f. & cert. ef. 10-22-99; DEQ 2-2000, f. 2-17-00, cert. ef. 6-Ä1-01; DEQ 6-2000, f. & cert. ef. 5-22-00; DEQ 8-2000, f. & cert. ef. 6-6-00; DEQ 13-2000, f. & cert. ef. 7-28-00; DEQ 16-2000, f. & cert. ef. 10-25-00; DEQ 17-2000, f. & cert. ef. 10-25-00; DEQ 20-2000 f. & cert. ef. 12-15-00; DEQ 21-2000, f. & cert. ef. 12-15-00; DEQ 2-2001, f. & cert. ef. 2-5-01; DEQ 4-2001, f. & cert. ef. 3-27-01; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01; DEQ 15-2001, f. & cert. ef. 12-26-01; DEQ 16-2001, f. & cert. ef. 12-26-01; DEQ 17-2001, f. & cert. ef. 12-28-01; DEQ 4-2002, f. & cert. ef. 3-14-02; DEQ 5-2002, f. & cert. ef. 5-3-02; DEQ 11-2002, f. & cert. ef. 10-8-02; DEQ 5-2003, f. & cert. ef. 2-6-03; DEQ 14-2003, f. & cert. ef. 10-24-03; DEQ 19-2003, f. & cert. ef. 12-12-03; DEQ 1-2004, f. & cert. ef. 4-14-04; DEQ 10-2004, f. & cert. ef. 12-15-04; DEQ 1-2005, f. & cert. ef. 1-4-05; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 4-2005, f. 5-13-05, cert. ef. 6-1-05; DEQ 7-2005, f. & cert. ef. 7-12-05; DEQ 9-2005, f. & cert. ef. 9-9-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 4-2006, f. 3-29-06, cert. ef. 3-31-06; DEQ 3-2007, f. & cert. ef. 4-12-07; DEQ 4-2007, f. & cert. ef. 6-28-07; DEQ 8-2007, f. & cert. ef. 11-8-07; DEQ 5-2008, f. & cert. ef. 3-20-08; DEQ 11-2008, f. & cert. ef. 8-29-08

DIVISION 232

EMISSION STANDARDS FOR VOC POINT SOURCES

~~340-232-0070~~
~~**Gasoline Dispensing Facilities**~~
~~(1) No person may transfer or cause or allow the transfer of gasoline from any delivery vessel which was filled at a Bulk Gasoline Terminal into any gasoline dispensing facility tank of less than 40,000 gallon capacity unless:~~
~~(a) The tank is filled by submerged fill;~~
~~(b) A vapor balance system is used which consists of a certified gasoline storage tank device capable of collecting the vapor from volatile organic liquids and gases so as to prevent their emission to the outdoor atmosphere. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place;~~
~~(c) The vapors are processed by a system demonstrated to the satisfaction of the Department to be of equal effectiveness; and~~
~~(d) All equipment associated with the vapor balance system shall be maintained to be vapor tight and in good working order. No gasoline delivery shall take place unless the vapor return hose is connected by the delivery truck operator, if required by subsection (b) of this section.~~
~~(2) Exemptions and Limitations:~~

~~(a) All existing storage tanks at gasoline dispensing facilities with a rated capacity of 1,500 gallons or less are exempt from the submerged fill and vapor balance system requirements in section (1) of this rule;~~
~~(b) All new gasoline storage tanks with a rated capacity of 1500 gallons or less are exempt from the vapor balance system requirement in subsection (1)(b) of this rule;~~
~~(c) All new gasoline storage tanks of any capacity, installed after the effective date of this rule, shall have a submerged fill-tube system;~~
~~(d) Transfers made to storage tanks of gasoline dispensing facilities equipped with floating roofs or their equivalent shall be exempt from subsections (1)(a) and (1)(b) of this rule.~~
~~(3) Compliance with subsection (1)(b) of this rule shall be determined by verifications of use of equipment identical to equipment most recently approved and listed for such use by the Department or by testing in accordance with Method 30 on file with the Department.~~
~~(4) All persons subject to OAR 340-232-0010 and this rule shall obtain and maintain a current vapor balance system permit from the Department:~~
~~(a) All persons applying for this permit for any time period beginning after December 31, 1999 shall be subject to a biennial fee of $100;~~
~~(b) The Department may issue vapor balance permits for up to 10 years;~~
~~(c) Persons applying for a new permit with an effective date beginning before December 31, 1999 or in an odd numbered year shall pay the annual fee of $50 and then will be billed for the biennial fee for the next biennial period;~~
~~(d) Fees shall be paid at the time of application and by December 1 in odd numbered years for the next biennial period.~~
~~(5) When a facility changes ownership, the new owner shall obtain a new vapor balance system permit, as described in section (4) of this rule above, within 60 days of the change of ownership.~~
~~(6) No person shall cause or allow the installation of non-certified gasoline storage tank device equipment at any gasoline dispensing facility where a vapor balance system is required.~~
~~(7) Persons subject to this rule shall apply for a renewal vapor balance system permit not less than 60 days prior to the expiration date of the existing permit. The biennial fee shall be included with the application for renewal.~~
~~[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.025~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 16-1983, f. & ef. 10-19-83; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 25-1994, f. & cert. ef. 11-22-94; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0110~~

DIVISION 242

RULES APPLICABLE TO THE PORTLAND AREA

Gasoline Vapors from Gasoline Transfer and Dispensing Operations

340-242-0520
General Provisions

~~(1) Notwithstanding the requirements of OAR 340-232-0070, no person shall transfer or allow the transfer of gasoline into storage tanks, at gasoline-dispensing facilities located in Clackamas, Multnomah or Washington Counties, whose annual throughput exceeds 120,000 gallons, unless the storage tank is equipped with:~~

~~(a) A stage I vapor collection system consisting of a vapor-tight return line from the storage tank, or its vent, to the gasoline transport vehicle;~~

~~(b) A properly installed on-site vapor control system connected to a vapor collection system; or~~

~~(c) An equivalent control system.~~

~~(2) A stage II vapor collection system is not required at gasoline-dispensing facilities that are not subject to the stage I requirements of this section.~~

(13) No owner and/or operator of a gasoline-dispensing facility~~ies~~ shall transfer or allow the transfer of gasoline into a motor vehicle fuel tank at gasoline-dispensing facilities located in Clackamas, Multnomah or Washington Counties whose annual throughput exceeds 600,000 gallons, unless the gasoline-dispensing facility is equipped with a stage II vapor collection system which must be approved by the Department before it is installed.

[**NOTES**:

-1- Underground piping requirements are described in OAR 340-150-0001 through 340-150-0003 and **40 CFR 280.20(d)**. Systems installed according to American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage System" or Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems" or American National Standards Institute Standard B31.4 "Liquid Petroleum Transportation Piping System" are considered approved systems.

-2- Above-ground stage II equipment requirements are based on systems recently approved in other states with established stage II program. See the Oregon Department of Environmental Quality, Air Quality Division, for the list of approved equipment. Any other proposed equivalent systems must be submitted to the Department of Environmental Quality, Air Quality Division, for approval before installation.]

(24) Owners and/or operators of ~~gasoline storage tanks, gasoline transport vehicles and~~ gasoline-dispensing facilities subject to ~~stage I or~~ stage II vapor collection requirements must:

(a) Install all necessary ~~stage I and~~ stage II vapor collection and control systems, and make any modifications necessary to comply with the requirements;

(b) Provide adequate training and written instructions to the operator of the affected gasoline-dispensing facility and the gasoline transport vehicle;

(c) Replace, repair or modify any worn or ineffective component or design element to ensure the vapor-tight integrity and efficiency of the ~~stage I and~~ stage II vapor collection systems; and

(d) Connect and ensure proper operation of the ~~stage I and~~ stage II vapor collection systems whenever gasoline is being loaded, unloaded or dispensed.

(35) Approval of a ~~stage I or~~ stage II vapor collection system by the Department does not relieve the owner and/or operator of the responsibility to comply with other applicable codes and regulations pertaining to fire prevention, weights and measures and safety matters.

(46) Regarding installation and testing of piping for ~~stage I and~~ stage II vapor collection systems:

(a) Piping shall be installed in accordance with standards in OAR 340 Division 150;

(b) Piping shall be installed by a licensed installation service provider pursuant to OAR 340 Division 160; and
(c) Piping shall be tested prior to being placed into operation by an installation or tank tightness testing service provider licensed pursuant to OAR 340 Division 160.
~~(7) Owners and/or operators of gasoline dispensing facilities subject to stage II vapor collection requirements must obtain and maintain a current stage II vapor collection permit from the Department. This permit shall be displayed or kept on file at the facility:~~
~~(a) Persons applying for this permit for any time period beginning after December 31, 1999 shall be subject to a biennial fee of $200;~~
~~(b) The Department may issue stage II vapor collection permits for up to 10 years;~~
~~(c) Persons applying for a new permit with an effective date beginning before December 31, 1999 or in an odd numbered year shall pay the annual fee of $100 and then will be billed for the biennial fee for the next biennial period:~~
~~(d) Fees shall be paid at the time of application and by December 1 in odd numbered years for the next biennial period.~~
~~(8) When a facility changes ownership, the new owner shall obtain a new stage II vapor collection permit, as described in section (7) of this rule above, within 60 days of the change of ownership.~~
~~(9) Persons subject to this rule shall apply for a renewal stage II vapor collection permit not less than 60 days prior to the expiration date of the existing permit. The biennial fee shall be included with the application for renewal.~~
[**NOTE:** Test methods are based on methods used in other states with established stage II programs. See the Oregon Department of Environmental Quality, Air Quality Division, for copies of the approved test methods.]
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]
[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]
Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 7-1991, f. & cert. ef. 5-7-91 (and corrected 6-7-91); DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 25-1994, f. & cert. ef. 11-22-94; DEQ 16-1996, f. & cert. ef. 8-14-96; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0402

DIVISION 244

OREGON FEDERAL HAZARDOUS AIR POLLUTANT PROGRAM

Emission Standards for Gasoline Dispensing Facilities

340-244-0232
Purpose
This rule establishes emission limitations and management practices for hazardous air pollutants (HAP) and volatile organic compounds (VOC) emitted from the loading of gasoline storage tanks and dispensing of fuel at gasoline dispensing facilities (GDF). This rule also establishes requirements to demonstrate compliance with the emission limitations and management practices.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0234
Affected Sources
(1) The affected source to which the emission standards apply is each GDF. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.
(2) The emissions standards in OAR 340-244-0236 through 0252 do not apply to agricultural operations as defined in ORS 468A.020. Agricultural operations are however required to comply with the Gasoline Dispensing NESHAP, if applicable (40 CFR part 63 subpart CCCCCC).
(3) All GDFs must comply with the requirements of OAR 340-244-0240.
(4) The owner or operator of a GDF must comply with the requirements of OAR 340-244-0242 for the following gasoline storage tanks:
(a) All tanks with a capacity of 250 gallons or more located at GDFs:
(A) Whose annual throughput exceeds 480,000 gallons of gasoline or more;
(B) Whose average monthly throughput exceeds 100,000 gallons of gasoline or more; or
(C) In Clackamas, Multnomah, or Washington County whose annual throughput exceeds 120,000 gallons of gasoline or more.
(b) All tanks with a capacity of 1,500 gallons or more located at GDFs in the Portland AQMA, Medford AQMA, or Salem SATS.
(5) The owner or operator of a GDF must comply with the requirements of OAR 340-244-0242(4) for any gasoline storage tank equipped with a vapor balance system.
(6) An affected source must, upon request by the Department, demonstrate their annual or average monthly throughput.
(7) The owner or operator of an affected source, as defined in section (1) of this rule, is not required to obtain a Title V Operating Permit. However, the owner or operator must still apply for and obtain a Title V Operating Permit if meeting one or more of the applicability criteria found in OAR 340-218-0020.
(8) The loading of aviation gasoline storage tanks at airports is not subject to this rule and the aviation gasoline is not included in the gasoline throughput specified in sections (2) through (5) of this rule.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0236
Affected Equipment or Processes
(1) The emission sources to which this rule applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in OAR 340-244-0234. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this rule.
(2) An affected source is a new affected source if construction commenced on the affected source after November 9, 2006, and the applicability criteria in OAR 340-244-0234 are met at the time operation commenced.
(3) An affected source is reconstructed if meeting the criteria for reconstruction as defined in 40 CFR 63.2.

(4) An affected source is an existing affected source if it is not new or reconstructed.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0238
Compliance Dates
(1) For a new or reconstructed affected source, the owner or operator must comply with the standards in OAR 340-244-0240 and 0242, as applicable, no later than January 10, 2008 or upon startup, whichever is later, except as follows:
(a) The owner or operator of a new or reconstructed GDF must comply with OAR 340-244-0240(1)(b) and (c) no later than July 1, 2009 or upon startup, whichever is later.
(b) For tanks located at a GDF with average monthly throughput less than 100,000 gallons of gasoline and not listed in OAR 340-244-0234(4)(a)(C) or (4)(b) must comply with OAR 340-244-0242, as applicable, no later than December 13, 2009 or upon startup, whichever is later.
(c) The owner or operator of a GDF subject to Table 4 of this division must comply no later than September 23, 2008 or upon startup, whichever is later.
(2) For an existing affected source, the owner or operator must comply with the standards in OAR 340-244-0240 and 0242, as applicable, by no later than January 10, 2011, except as follows:
(a) For tanks with a capacity between 1,500 and 40,000 gallons and located in the Portland AQMA, Medford AQMA, or Salem SATS, the owner or operator must comply with the standards in OAR 340-244-0240(2) and 0242 no later than December 13, 2008.
(b) For tanks located at an affected source located in Clackamas, Multnomah, or Washington County, whose annual throughput exceeds 120,000 gallons, the owner or operator must comply with the standards in OAR 340-244-0240(2) and 0242 no later than December 13, 2008.
(c) The owner or operator of an existing GDF must comply with OAR 340-244-0240(1)(b) and (c) no later than July 1, 2009 or upon startup, whichever is later.
(3) For an existing affected source that becomes subject to the control requirements in this rule because of an increase in the average monthly throughput, as specified in OAR 340-244-0234(4), the owner or operator must comply with the standards in this rule no later than January 10, 2011 or within 2 years after the affected source becomes subject to the control requirements in this rule, whichever is later.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0240
Work Practice and Submerged Fill Requirements
(1) The owner or operator of a GDF must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
(a) Minimize gasoline spills;
(b) Do not top off or overfill vehicle tanks;
(c) Post a sign at the GDF instructing attendants not to top off vehicle tanks;
(d) Clean up spills as expeditiously as practicable;
(e) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(f) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
(g) Ensure that cargo tanks unloading at the GDF comply with subsections (1)(a) through (e) of this rule.
(2) Any cargo tank unloading at a GDF equipped with a functional vapor balance system must connect to the vapor balance system whenever gasoline is being loaded.
(3) The owner or operator must only load gasoline into storage tanks at the facility by utilizing submerged filling, as defined in OAR 340-244-0030, and as specified in subsection (2)(a) or (2)(b) of this rule.
(a) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the storage tank.
(b) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the storage tank.
(4) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in section (2) of this rule.
(5) The owner or operator must submit the applicable notifications as required under OAR 340-244-0246.
(6) The owner or operator must have records available within 24 hours of a request by the Department to document gasoline throughput.
(7) The owner or operator must comply with the requirements of this rule by the applicable dates specified in OAR 340-244-0238.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0242
Vapor Balance Requirements
(1) Except as provided in section (2) of this rule, the owner or operator of gasoline storage tank listed in OAR 340-244-0234(4), must meet the requirements in either subsection (1)(a) or (1)(b) of this rule.
(a) Each management practice in Table 4 of this division that applies to the GDF.
(b) If, prior to January 10, 2008, the owner or operator operates a vapor balance system at the GDF that meets the requirements of either paragraph (2)(b)(A) or (2)(b)(B) of this rule, the owner or operator will be deemed in compliance with this section.
(A) Achieves emissions reduction of at least 90 percent.
(B) Operates using management practices at least as stringent as those in Table 4 of this division.
(2) Gasoline storage tanks equipped with floating roofs or the equivalent are not required to comply with the control requirements in section (1) of this rule.
(3) Cargo tanks unloading at a GDF must comply with the requirements of OAR 340-244-0240(1) and management practices in Table 5 of this division.
(4) The owner or operator of a GDF subject to section (1) of this rule or having a gasoline storage tank equipped with a vapor balance system, must comply with the following requirements on and after the applicable compliance date in OAR 340-244-0238:
(a) When loading a gasoline storage tank equipped with a vapor balance system, connect and ensure the proper operation of the vapor balance system whenever gasoline is being loaded.
(b) Maintain all equipment associated with the vapor balance system to be vapor tight and in good working order.

(c) In order to ensure that the vapor balance equipment is maintained to be vapor tight and in good working order, have the vapor balance equipment inspected on an annual basis to discover potential or actual equipment failures.
(d) Replace, repair or modify any worn or ineffective component or design element within 24 hours to ensure the vapor-tight integrity and efficiency of the vapor balance system. If repair parts must be ordered, either a written or verbal order for those parts must be initiated within 2 working days of detecting such a leak. Such repair parts must be installed within 5 working days after receipt.
(5) The owner or operator of a GDF subject to section (1) of this rule must also comply with the following requirements:
(a) The applicable testing requirements contained in OAR 340-244-0244.
(b) The applicable notification requirements under OAR 340-244-0246.
(c) The applicable recordkeeping and reporting requirements as specified in OAR 340-244-0248 and 0250.
(d) The owner or operator must have records available within 24 hours of a request by the Department to document gasoline throughput.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Testing and Monitoring Requirements

340-244-0244
Testing and Monitoring Requirements
(1) If required to install a vapor balance system under OAR 340-244-0242, the owner or operator must comply with the requirements in subsections (1)(a) and (b) of this rule at the time of installation of a vapor balance system or a new gasoline storage tank. Each owner or operator of a GDF with monthly throughput of 100,000 gallons of gasoline or more must comply the requirements in subsections (1)(a) and (b) of this rule every 3 years following the time of installation of a vapor balance system or a new gasoline storage tank.
(a) The owner or operator must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 4 of this division, for pressure-vacuum vent valves installed on gasoline storage tanks using the test methods identified in paragraph (1)(a)(A) or (B) of this rule.
(A) California Air Resources Board Vapor Recovery Test Procedure TP–201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see **40 CFR 63.14**).
(B) Use alternative test methods and procedures in accordance with the alternative test method requirements in **40 CFR 63.7(f)**.
(b) The owner or operator must demonstrate compliance with the static pressure performance requirement, specified in item 1(h) of Table 4 of this division, for the vapor balance system by conducting a static pressure test on the gasoline storage tanks using the test methods identified in paragraph (1)(b)(A) or (B) of this rule.
(A) California Air Resources Board Vapor Recovery Test Procedure TP–201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see **40 CFR 63.14**).

(B) Use alternative test methods and procedures in accordance with the alternative test method requirements in **40 CFR 63.7(f)**.
(2) Each owner or operator of a GDF, choosing, under the provisions of **40 CFR 63.6(g)**, to use a vapor balance system other than that described in Table 4 of this division, must demonstrate to the Department the equivalency of their vapor balance system to that described in Table 4 of this division using the procedures specified in subsections (2)(a) through (c) of this rule.
(a) The owner or operator must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP–201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see **40 CFR 63.14**).
(b) The owner or operator must, during the initial performance test required under subsection (2)(a) of this rule, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 4 of this division and for the static pressure performance requirement in item 1(h) of Table 4 of this division.
(c) The owner or operator must comply with the testing requirements specified in section (1) of this rule.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Notifications, Records, and Reports

340-244-0246
Notifications
(1) Each owner or operator subject to the control requirements in OAR 340-244-0240(2) must comply with subsections (1)(a) through (c) of this rule.
(a) The owner or operator must submit an Initial Notification that the owner or operator is subject to the Gasoline Dispensing Facilities NESHAP by May 9, 2008, or at the time the owner or operator becomes subject to the control requirements in OAR 340-244-0240(2), unless the owner or operator meets the requirements in subsection (1)(c) of this rule. The Initial Notification must contain the information specified in paragraphs (1)(a)(A) through (C) of this rule. The notification must be submitted to EPA's Region 10 Office and the Department as specified in **40 CFR 63.13**.
(A) The name and address of the owner and the operator.
(B) The address (i.e., physical location) of the GDF.
(C) A statement that the notification is being submitted in response to the Gasoline Dispensing Facilities NESHAP and identifying the requirements in OAR 340-244-0240(1) through (3) that apply to the owner or operator.
(b) The owner or operator must submit a Notification of Compliance Status to EPA's Region 10 Office and the Department, as specified in **40 CFR 63.13**, by the compliance date specified in OAR 340-244-0238 unless the owner or operator meets the requirements in subsection (1)(c) of this rule. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of OAR 340-244-0232 through 0252. If the facility is in compliance with the requirements of OAR 340-244-0232 through 0252 at the time the Initial Notification required under subsection (1)(a) of this rule is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under subsection (1)(a) of this rule.

(c) If, prior to January 10, 2008, the owner or operator is operating in compliance with an enforceable State rule or permit that requires submerged fill as specified in OAR 340-244-0240(2), the owner or operator is not required to submit an Initial Notification or a Notification of Compliance Status under subsection (1)(a) or (b) of this rule.

(2) Each owner or operator subject to the control requirements in OAR 340-244-0242 must comply with subsections (2)(a) through (e) of this rule.

(a) The owner or operator must submit an Initial Notification that the owner or operator is subject to the Gasoline Dispensing Facilities NESHAP by May 9, 2008, or at the time the owner or operator becomes subject to the control requirements in OAR 340-244-0242. The Initial Notification must contain the information specified in paragraphs (2)(a)(A) through (C) of this rule. The notification must be submitted to EPA's Region 10 Office and the Department as specified in **40 CFR 63.13**.

(A) The name and address of the owner and the operator.

(B) The address (i.e., physical location) of the GDF.

(C) A statement that the notification is being submitted in response to the Gasoline Dispensing Facilities NESHAP and identifying the requirements in OAR 340-244-0242 that apply to the owner or operator.

(b) The owner or operator must submit a Notification of Compliance Status to EPA's Regional 10 Office and the Department, as specified in **40 CFR 63.13**, by the compliance date specified in OAR 340-244-0238. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of OAR 340-244-0232 through 0252. If the facility is in compliance with the requirements OAR 340-244-0232 through 0252 at the time the Initial Notification required under subsection (2)(a) of this rule is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under subsection (2)(a) of this rule.

(c) If, prior to January 10, 2008, the owner or operator satisfies the requirements in both paragraphs (2)(c)(A) and (B) of this rule, the owner or operator is not required to submit an Initial Notification or a Notification of Compliance Status if the owner or operator operates a vapor balance system at the gasoline dispensing facility that meets the requirements of either paragraphs (2)(c)(A) or (B) of this rule.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 4 of this division.

(d) The owner or operator must submit a Notification of Performance Test, as specified in **40 CFR 63.9(e)**, prior to initiating testing required by OAR 340-244-0244(1) and (2).

(e) The owner or operator must submit additional notifications specified in **40 CFR 63.9**, as applicable.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0248

Recordkeeping requirements

(1) Each owner or operator must keep the following records:

(a) Records of all tests performed under OAR 340-244-0244(1) and (2);

(b) Records related to the operation and maintenance of vapor balance equipment required under OAR 340-244-0242. Any vapor balance component defect must be logged and tracked by station personnel using forms provided by the Department or a reasonable facsimile.

(c) Records of total throughput volume of gasoline, in gallons, for each calendar month.

(d) Records of permanent changes made at the GDF and vapor balance equipment which may affect emissions.

(2) Records required under section (1) of this rule must be kept for a period of 5 years and must be made available for inspection by the Department during the course of a site visit.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0250
Reporting requirements
(1) Each owner or operator subject to the management practices in OAR 340-244-0242 must report to the Department the results of all volumetric efficiency tests required under OAR 340-244-0244(1) and (2). Reports submitted under this rule must be submitted within 30 days of the completion of the performance testing.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0252
General Provision applicability
Table 3 to **40 CFR part 63 subpart CCCCCC** shows which parts of the General Provisions apply to the owner or operator.

TABLE 4 (OAR 340-244-0242)

MANAGEMENT PRACTICES FOR GASOLINE DISPENSING FACILITIES SUBJECT TO STAGE I VAPOR CONTROLS

If owning or operating	The owner or operator must
1. An existing GDF	The permittee must install and operate a vapor balance system on gasoline storage tanks that meets the design criteria in paragraphs (a) through (h). (a) All vapor connections and lines on the storage tank must be equipped with closures that seal upon disconnect. (b) The vapor line from the gasoline storage tank to the gasoline cargo tank must be vapor-tight, as defined in OAR 340-244-0030. (c) The vapor balance system must be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer. (d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, must be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations. (e) If a gauge well separate from the fill tube is used, it must be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in OAR 340-244-0240(2). (f) Liquid fill connections for all systems must be equipped with vapor-tight caps. (g) Pressure/vacuum (PV) vent valves must be installed on the storage tank vent pipes. The pressure specifications for PV vent valves must be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, must not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water. (h) The vapor balance system must be capable of meeting the static pressure performance requirement of the following equation: $Pf = 2e^{-500.887/v}$ Where: Pf = Minimum allowable final pressure, inches of water. v = Total ullage affected by the test, gallons. e = Dimensionless constant equal to approximately 2.718. 2 = The initial pressure, inches water.
2. For a new or reconstructed GDF with monthly	The permittee must install and operate a dual-point

throughput of 100,000 gallons of gasoline or more, or a new storage tank(s) at an existing GDF with monthly throughput of 100,000 gallons of gasoline or more	vapor balance system, as defined in OAR 340-244-0030, on each affected gasoline storage tank and comply with the design criteria in item 1 of this Table.

TABLE 5 (OAR 340-244-0242)

MANAGEMENT PRACTICES FOR GASOLINE CARGO TANKS UNLOADING AT GASOLINE DISPENSING FACILITIES EQUIPPED WITH STAGE I VAPOR CONTROLS

If owning or operating	The owner or operator must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF with stage I vapor controls unless the following conditions are met: (i) All hoses in the vapor balance system are properly connected, (ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect, (iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight, (iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and (v) All hatches on the tank truck are closed and securely fastened. (vi) The filling of storage tanks at GDF must be limited to unloading by vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 must be carried on the cargo tank.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 230

INCINERATOR REGULATIONS

Municipal Waste Combustors

340-230-0300
Applicability

(1) Applicability: OAR 340-230-0310 through 340-230-0359~~0~~ apply to each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction was commenced on or before September 20, 1994.

(a) MWC greater than 250 tons per day that commenced construction after September 20, 1989 and on or before September 20, 1994 are also subject to **40 CFR Part 60 Subpart Ea** as adopted under OAR 340-238-0060.

(b) MWC subject to OAR 340-230-0300 through 340-230-0350 are not subject to the incinerator rules in OAR 340-230-0100 through 340-230-0150.

(2) Exemptions:

(a) Any municipal waste combustion unit that is capable of combusting more than 250 tons per day of municipal solid waste and is subject to a federally enforceable permit limiting the maximum amount of municipal solid waste that may be combusted in the unit to less than or equal to 11 tons per day is not subject to this rule if the owner or operator:

(A) Notifies the Department of an exemption claim;

(B) Provides a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 11 tons per day; and

(C) Keeps records of the amount of municipal solid waste fired on a daily basis.

(b) Physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission limits under these rules are not considered in determining whether the unit is a modified or reconstructed facility under **40 CFR 60, Subparts Ea or Eb**.

(c) A qualifying small power production facility, as defined in **section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C))**, that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to these rules if the owner or operator of the facility notifies the Department of this exemption and provides data documenting that the facility qualifies for this exemption.

(d) A qualifying cogeneration facility, as defined in section **3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B))**, that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to these rules if the owner or operator of the facility notifies the Department of this exemption and provides data documenting that the facility qualifies for this exemption.

(e) Any unit combusting a single-item waste stream of tires is not subject to this rule if the owner or operator of the unit:

(A) Notifies the Department of an exemption claim; and

(B) Provides data documenting that the unit qualifies for this exemption.
(f) Any unit required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to these rules.
(g) Any materials recovery facility (including primary or secondary smelters) that combusts waste for the primary purpose of recovering metals is not subject to these rules.
(h) Any cofired combustor, as defined in **40 CFR 60.51b**, that meets the capacity specifications in section (1) of this rule is not subject to these rules if the owner or operator of the cofired combustor:
(A) Notifies the Department of an exemption claim;
(B) Provides a copy of the federally enforceable permit (specified in the definition of cofired combustor); and
(C) Keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the cofired combustor and the weight of all other fuels combusted at the cofired combustor.
(i) Pyrolysis/combustion units that are an integrated part of a plastics/rubber recycling unit (as defined in **40 CFR 60.51b**) are not subject to this rule if the owner or operator of the plastics/rubber recycling unit keeps records of:
(A) The weight of plastics, rubber, and/or rubber tires processed on a calendar quarter basis;
(B) The weight of chemical plant feedstocks and petroleum refinery feedstocks produced and marketed on a calendar quarter basis; and
(C) The name and address of the purchaser of the feedstocks. The combustion of gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units are not subject to these rules.
(j) Air curtain incinerators that meet the capacity specifications in ~~paragraph~~subsection (a) of this section, and that combust a fuel stream composed of 100 percent yard waste are exempt from all provisions of this subpart except the opacity standard under OAR 340-230-0310, the testing procedures under OAR 340-230-0340, and the reporting and recordkeeping provisions under OAR 340-230-0350.
(k) Air curtain incinerators that meet the capacity specifications in ~~paragraph~~subsection (a) of this section and that combust municipal solid waste other than yard waste are subject to all provisions of this subpart.
(l) Cement kilns firing municipal solid waste are not subject to this subpart.
(m) Any affected facility meeting the applicability requirements under this rule is not subject to **40 CFR part 60 subpart E**.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats.Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0950; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0310
Emissions Limitations
No person may cause, suffer, allow, or permit the operation of any affected municipal waste combustor unit in a manner that violates the following emission limits and requirements:

(1) Before April 28, 2009, ~~P~~particulate matter emissions from each unit must not exceed 27 milligrams per dry standard cubic meter (0.012 grains per dry standard cubic foot) corrected to 7 percent oxygen.~~;~~ On and after April 28, 2009, particulate matter emissions from each unit must not exceed 25 milligrams per dry standard cubic meter (0.011 grains per dry standard cubic foot) corrected to 7 percent oxygen.

(2) Opacity. The emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility must not exceed 10 percent opacity as a 6-minute average.

(3) Municipal Waste Combustor Metals:

(a) Before April 28, 2009, ~~C~~cadmium emissions from each unit must not exceed 0.040 milligrams per dry standard cubic meter (0.000018 gr/dscf) corrected to 7 percent oxygen. On and after April 28, 2009, cadmium emissions from each unit must not exceed 0.020 milligrams per dry standard cubic meter (0.000008 gr/dscf) corrected to 7 percent oxygen.

(b) Before April 28, 2009, ~~L~~lead emissions from each unit must not exceed 0.4~~9~~ milligrams per dry standard cubic meter (0.0002~~0~~1 gr/dscf) corrected to 7 percent oxygen. On and after April 28, 2009, lead emissions from each unit must not exceed 0.20 milligrams per dry standard cubic meter (0.00009 gr/dscf) corrected to 7 percent oxygen.

(c) Before April 28, 2009, ~~M~~mercury emissions from each unit must not exceed 0.080 milligrams per dry standard cubic meter (0.000035 gr/dscf) or 15 percent of the potential mercury emission concentration (an 85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent. On and after April 28, 2009, mercury emissions from each unit must not exceed 0.050 milligrams per dry standard cubic meter (0.000022 gr/dscf) or 15 percent of the potential mercury emission concentration (an 85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

(4) Sulfur dioxide (SO2) emissions from each unit must not exceed ~~31~~29 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.

(5) Hydrogen chloride (HCl) emissions from each unit must not exceed ~~31~~29 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

(6) The dioxin/furan emissions from each unit must not exceed:

(a) Before April 28, 2009, 60 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit~~s~~ that employ~~s~~ an electrostatic precipitator-based emission control system;

(b) On and after April 28, 2009, 35 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit that employs an electrostatic precipitator-based emission control system;

(~~c~~b) Before April 28, 2009, 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit that does not employ an electrostatic precipitator-based emission control system. On and after April 28, 2009, ~~30~~15 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit~~s~~ that doe~~s~~ not employ an electrostatic precipitator-based emission control system.

(7) Emissions of nitrogen oxides from each unit must not exceed 205 parts per million by ~~dry~~ volume on a dry basis corrected to 7 percent ~~O2~~oxygen.

(8) Fugitive Emissions:
(a) No owner or operator may cause or allow visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by **EPA Reference Method 22** observations, except as provided in ~~paragraphs~~subsections (b) and (c) of this section.
(b) The emission limit specified in ~~paragraph~~subsection (a) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in ~~paragraph~~subsection (a) of this section does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
(c) The provisions specified in ~~paragraph~~subsection (a) of this section do not apply during maintenance and repair of ash conveying systems.
~~(9) Air Curtain Incinerators. No person may cause, suffer, allow, or permit the operation of any affected air curtain incinerator that burns 100 percent yard waste in a manner that violates the following emission limits and requirements:~~
~~(a) The opacity limit is 10 percent (6-minute average) for air curtain incinerators that can combust at least 35 tons per day of municipal solid waste and no more than 250 tons per day of municipal solid waste.~~
~~(b) The opacity limit is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.~~
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0960; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0320
Operating Practices
(1) Emissions of carbon monoxide from each unit must not exceed 100 parts per million by volume on a dry basis corrected to 7 percent ~~O2~~oxygen as a 4-~~four~~-hour block arithmetic average.
(2) No owner or operator of an affected facility may cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in **40 CFR 60.51**b except as specified in ~~paragraphs~~subsections (2)(a) and (b) of this rule~~section~~. The averaging time is a 4-hour block arithmetic average as specified under OAR 340-230-0340(9).
(a) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no municipal waste combustor unit load limit is applicable if the provisions of subsection (2)(b) of this rule are met.
(b) The municipal waste combustor unit load limit may be waived in writing ~~accordance with permission granted~~ by the Adminis-trator ~~or the Department in writing~~ for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The municipal waste combustor unit load limit continues to apply, and remains enforceable, until and unless the Administrator grants the waiver.

(3) No owner or operator of an affected facility may cause or allow such facility to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17°C above the maximum demonstrated particulate matter control device temperature as defined in **40 CFR 60.51b**, except as specified in ~~paragraphs~~subsections (3)(a) and (b) of this rule~~section~~. The averaging time must be a 4-hour block arithmetic average as specified under OAR 340-230-0340(9). The requirements specified in this paragraph apply to each particulate matter control device utilized at the affected facility.
(a) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no particulate matter control device temperature limitations are applicable if the provisions of subsection (3)(b) of this rule~~section~~ are met.
(b) The particulate matter control device temperature limits may be waived in writing ~~in accordance with permission granted~~ by the Administrator ~~or delegated State regulatory authority~~ for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The temperature limits continues to apply, and remains enforceable, until and unless the Administrator grants the waiver.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0970; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0330
Operator Training and Certification
(1) Each chief facility operator and shift supervisor must have completed full certification with either the **American Society of Mechanical Engineers** (ASME) **[QRO-1-1994** - see **40 CFR 60.17**] or other State approved certification program.
(2) If a chief facility operator or shift supervisor is not fully certified in accordance with section (1) of this rule~~OAR 340-230-0330(1)~~, the chief facility operator and~~or~~ shift supervisor must obtain and maintain a current provisional operator certification from either the ~~**American Society of Mechanical Engineers** (ASME)~~ **[QRO-1-1994** - see **40 CFR 60.17**] or other State approved certification and must have scheduled a full certification exam with either the ASME **[QRO-1-1994**] or other State approved certification program.
(3) No owner or operator of an affected facility may allow the facility to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam, a fully certified shift supervisor, or a provisionally certified shift supervisor who is scheduled to take the full certification exam.
(a4) If both the certified chief operator and certified shift supervisor are unavailable~~one of the persons listed in OAR 340-230-0330(3) must leave the affected facility during their operating shift~~, a provisionally certified control room operator ~~who is~~ on site at the affected facility may fulfill the certified operator requirement ~~in OAR 340-230-0330(3)~~. Depending on the length of

time that a certified chief operator and certified shift supervisor are away, the owner or operator of the affected facility must meet one of the three criteria:
(A) When the certified chief facility operator and certified shift supervisor are both off site for 12 hours or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.
(B) When the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for two weeks or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without notice or approval. However, the owner or operator of the affected facility must record the period when the certified chief facility operator and certified shift supervisor are off site and include that information in the annual report as specified under OAR 340-230-0350(3)(e).
(C) When the certified chief facility operator and certified shift supervisor are off site for more than two weeks, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without approval. However, the owner or operator of the affected facility must take two actions:
(i) Notify the Department in writing. In the notice, state what caused the absence and what actions are being taken by the owner or operator of the facility to ensure that a certified chief facility operator or certified shift supervisor is on site as expeditiously as practicable.
(ii) Submit a status report and corrective action summary to the Department every four weeks following the initial notification. If the Department provides notice that the status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Department withdraws the disapproval, municipal waste combustion unit operation may continue.
(b) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval for up to six months before taking the ASME QRO certification exam.
(~~4~~5) The owner or operator of an affected facility must develop and update on a yearly basis a site-specific operating manual that, at a minimum, addresses the elements of municipal waste combustor unit operation specified in subsections (4)(a) through (k) of this rule~~below~~:
(a) A summary of the applicable standards under OAR 340-230-031~~0~~ through 340-230-033~~50~~;
(b) A description of basic combustion theory applicable to a municipal waste combustor unit;
(c) Procedures for receiving, handling, and feeding municipal solid waste;
(d) Municipal waste combustor unit startup, shutdown, and malfunction procedures;
(e) Procedures for maintaining proper combustion air supply levels;
(f) Procedures for operating the municipal waste combustor unit within the standards established under OAR 340-230-031~~0~~ through 340-230-033~~50~~;
(g) Procedures for responding to periodic upset or off-specification conditions;
(h) Procedures for minimizing particulate matter carryover;
(i) Procedures for handling ash;
(j) Procedures for monitoring municipal waste combustor unit emissions; and

(k) Reporting and recordkeeping procedures.
(5~~6~~) The owner or operator of an affected facility must establish a training program to review the operating manual according to the schedule specified in subsections (5)(a) and (b) of this rule~~section~~ with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.
(a) Each person specified in section ~~OAR 340-230-0330~~(5~~6~~) of this rule must undergo initial training no later than the date specified in paragraph (5)(a)(A) or (B) of this rule, whichever is later.
(A) The date before the day the person assumes responsibilities affecting municipal waste combustor unit operation; or
(B) June 19, 1998.
(b) Annually, following the initial review required by subsection (5)(a) of this rule.
(6~~7~~) The operating manual required by section ~~OAR 340-230-0330~~(4~~5~~) of this rule must be kept in a readily accessible location for all persons required to undergo training under section ~~OAR 340-230-0330~~(5~~6~~) of this rule. The operating manual and records of training must be available for inspection by the EPA or the Department upon request.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0980; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0335
Standards for Municipal Waste Combustor Fugitive Ash Emissions
(1) No owner or operator of an affected facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in OAR 340-230-0340(11), except as provided in sections (2) and (3) of this rule.
(2) The emission limit specified in section (1) of this rule does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in section (1) of this rule does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
(3) The provisions specified in section (1) of this rule do not apply during maintenance and repair of ash conveying systems.

340-230-0340
Monitoring and Testing
(1) The standards under OAR 340-230-030~~010~~ through 0359 apply at all times except during periods of startup, shutdown, ~~or~~and malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence, except as provided in subsection (1)(c) of this rule~~section~~. During periods of startup, shutdown, or malfunction, monitoring data must be dismissed or excluded from compliance calculations, but must be recorded and reported in accordance with the provisions of OAR 340-230-0350(1)(f).

(a) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warmup period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.
(b) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.
(c) For purposes of compliance with the carbon monoxide emissions limit in OAR 340-230-320(1), if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data must be dismissed or excluded from compliance calculations, but must be recorded and reported in accordance with the provisions of OAR 340-230-0350(1)(f).
(2) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system ~~and record the output of the system~~ for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions, or particulate matter (if the owner or operator elects to continuously monitor emissions under section (13) of this rule) are monitored and record the output of the system and must comply with the test procedures and test methods specified ~~below~~in subsections (2)(a) through (g) of this rule.
(a) The span value of the oxygen (or carbon dioxide) monitor must be~~is~~ 25 percent oxygen (or 20 percent carbon dioxide).
(b) The monitor must be installed, evaluated, and operated in accordance with **40 CFR 60.13**.
(c) The monitor must conform to **Performance Specification 3** in **appendix B** of **40 CFR 60** except for section 2.3 (relative accuracy requirement).
(d) The quality assurance procedures of **Appendix F** of **40 CFR 60** except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.
(e) If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established ~~by the owner or operator~~ during the initial performance test ~~after December 31, 1997, but not later than June 8, 2004,~~ according to the following procedures and methods specified in paragraphs (2)(e)(A) through (D) of this rule. This relationship may be reestablished during subsequent performance compliance tests.
(A) The fuel factor equation in Method 3B must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. ~~emission rate correction factor and the integrated bag sampling and analysis procedure of~~ **EPA Reference Method** 3, 3A, ~~or~~ **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.
(B) Samples must be taken for at least 30 minutes in each hour.
(C) Each sample must represent a 1-hour average.
(D) A minimum of three runs must be performed.
(f) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with subsection (2)(e) of this rule~~section~~ must be submitted to the Department as part

of the annual performance test report ~~for the first test conducted after December 31, 2003~~ if the relationship is reestablished during the annual performance test.
(g) During a loss of boiler water level control or loss of combustion air control malfunction period as specified in subsection (1)(c) of this rule, a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides.
(3) Except as provided in subsection (3)(i) of this rule, t~~T~~he procedures and test methods specified in subsections (3)(a) through (j) of this rule ~~below~~ must be used to determine compliance with the emission limits for particulate matter and opacity under OAR 340-230-0310(1) and (2).
(a) **EPA Reference Method 1** must be used to select sampling site and number of traverse points.
(b) **EPA Reference Method 3**, ~~or~~ **3A** or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for gas analysis.
(c) **EPA Reference Method 5** must be used for determining compliance with the particulate matter emission limit. The minimum sample volume must be 1.7 cubic meters (60 cubic feet). The probe and filter holder heating systems in the sample train must be set to provide a gas temperature no ~~less than or~~ greater than 160 ~~± 14~~°C (320 ~~± 25~~°F). An oxygen or carbon dioxide measurement must be obtained simultaneously with each **EPA Reference Method 5** run.
(d) The~~An~~ owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule~~OAR 340-230-0340(2)(e)~~.
(e) As specified under 40 CFR 60.8, ~~A~~all performance tests must consist of at least three test runs ~~conducted under representative full load operating conditions and at least two of the test runs must be valid~~. The average of the particulate matter emission concentrations from the three~~all valid~~ test runs is used to determine compliance.
(f) In accordance with subsections (3)(g) and (j) of this rule, **EPA Reference Method 9** must~~is to~~ be used for determining compliance with the opacity limit except as provided under **40 CFR 60.11(e)**.
(g) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and must follow the methods and procedures specified in paragraphs (3)(g)(A) through (C) of this rule~~by 40 CFR 60.13~~.
(A) The output of the continuous opacity monitoring system must be recorded on a 6-minute average basis.
(B) The continuous opacity monitoring system must be installed, evaluated, and operated in accordance with 40 CFR 60.13.
(C~~B~~) The continuous opacity monitoring system must conform to **Performance Specification 1** in **appendix B** of **40 CFR Part 60**.
(h) ~~For each affected facility, t~~The owner or operator of an affected facility must conduct a performance test for particulate matter on a~~n~~ calendar year ~~annual~~ basis (no less ~~more~~ than ~~9~~12 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

(i) In place of particulate matter testing with **EPA Reference Method 5**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor particulate matter emissions instead of conducting performance testing using **EPA Reference Method 5** must install, calibrate, maintain, and operate a continuous emission monitoring system and must comply with the requirements specified in paragraphs (3)(i)(A) through (N) of this rule. The owner or operator who elects to continuously monitor particulate matter emissions instead of conducting performance testing using **EPA Reference Method 5** is not required to complete performance testing for particulate matter as specified in subsection (3)(h) of this rule and is not required to continuously monitor opacity as specified in subsection (3)(g) of this rule.

(A) Notify the Administrator and the Department one month before starting use of the system.

(B) Notify the Administrator and the Department one month before stopping use of the system.

(C) The monitor must be installed, evaluated, and operated in accordance with **40 CFR 60.13**.

(D) The initial performance evaluation must be completed no later than 180 days of notification to the Administrator and the Department of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later.

(E) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.

(F) The owner or operator of an affected facility must conduct an initial performance test for particulate matter emissions as required under **40 CFR 60.8**. Compliance with the particulate matter emission limit must be determined by using the continuous emission monitoring system specified in subsection (3)(i) of this rule to measure particulate matter and calculating a 24-hour block arithmetic average emission concentration using **EPA Reference Method 19, section 12.4.1**.

(G) Compliance with the particulate matter emission limit must be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.

(H) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified in subparagraphs (3)(i)(H)(i) and (ii) of this rule for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(i) At least two data points per hour must be used to calculate each 1-hour arithmetic average.

(ii) Each particulate matter 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(I) The 1-hour arithmetic averages required under paragraph (3)(i)(G) of this rule must be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (dry basis) and must be used to calculate the 24-hour daily arithmetic average emission concentrations. The 1-hour arithmetic averages must be calculated using the data points required under **40 CFR 60.13(e)(2)**.

(J) All valid continuous emission monitoring system data must be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (3)(i)(H) of this rule are not met.

(K) The continuous emission monitoring system must be operated according to **Performance Specification 11** in **40 CFR part 60 appendix B.**

(L) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 11** in **40 CFR part 60 appendix B**, particulate matter and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in subparagraphs (3)(i)(L)(i) and (ii) of this rule.

(i) For particulate matter, **EPA Reference Method 5** must be used.

(ii) For oxygen (or carbon dioxide), **EPA Reference Method 3, 3A**, or **3B**, as applicable must be used.

(M) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with **Procedure 2** in **40 CFR part 60 appendix F.**

(N) When particulate matter emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by the Administrator or **EPA Reference Method 19** to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.

(~~i~~i) For each affected facility, the owner or operator must conduct a performance test for opacity on an annual basis (no ~~more~~less than 9 calendar months and no more than 15~~12~~ calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period) using the test method specified in subsection (3)(f) of this rule.

(4) The procedures and test methods specified in subsections (4)(a) and (b) of this rule~~below~~ must be used to determine compliance with the emission limits for cadmium, lead, and mercury under OAR 340-230-0310(3).

(a) The procedures and test methods specified in paragraphs (4)(a)(A) through (G) of this rule~~below~~ must be used to determine compliance with the emission limits for cadmium and lead under OAR 340-230-0310(3)(a) and (b).

(A) **EPA Reference Method 1** must be used for determining the location and number of sampling points.

(B) **EPA Reference Method 3, 3A**, or **3B,** or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for flue gas analysis.

(C) **EPA Reference Method 29** must be used for determining compliance with the cadmium and lead emission limits. ~~The minimum sample volume is 1.7 dscm (60 dscf).~~

(D) An oxygen or carbon dioxide measurement must be obtained simultaneously with each **EPA Reference Method 29** test run for cadmium and lead required under paragraph (4)(a)(C) of this rule.

(E) The~~An~~ owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule~~OAR 340-230-0340(2)(e)~~.

(F) All performance tests must consist of at least three test runs conducted under representative full load operating conditions ~~and at least two of the test runs must be valid~~. The average of the cadmium and lead emission concentrations from three~~all valid~~ test runs or more must be~~is~~ used to determine compliance.
(G) ~~For each affected facility, t~~The owner or operator of an affected facility must conduct a performance test for compliance with the emission limits for cadmium and lead on a~~n~~ calendar year ~~annual~~ basis (no less than 9 calendar months and no more than 15~~2~~ calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period)~~, thereafter~~.
(b) The procedures and test methods specified in paragraphs (4)(b)(A) through (I) of this rule~~below~~ must be used to determine compliance with the mercury emission limit under OAR 340-230-0310(3)(c).
(A) **EPA Reference Method 1** must be used for determining the location and number of sampling points.
(B) **EPA Reference Method 3, 3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for flue gas analysis.
(C) **EPA Reference Method 29** or as an alternative **ASTM D6784-02** must be used to determine the mercury emission concentration. The minimum sample volume when using **EPA Reference Method 29** or as an alternative **ASTM D6784-02** for mercury is 1.7 cubic meters (60 cubic feet).
(D) An oxygen (or carbon dioxide) measurement must be obtained simultaneously with each **EPA Reference Method 29** or as an alternative **ASTM D6784-02** test run for mercury required under paragraph (4)(b)(C) of this rule.
(E) The percent reduction in the potential mercury emissions (%PHg) is computed using equation 1~~2~~: [Equation not included. See ED. NOTE.]
(F) All performance tests must consist of a minimum of~~at least~~ three test runs conducted under representative full load operating conditions ~~and at least two of the test runs must be valid~~. The average of the mercury emission concentrations or percent reductions from three~~all valid~~ test runs or more is used to determine compliance.
(G) The~~An~~ owner or operator of an affected source may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule~~OAR 340-230-0340(2)(e)~~.
(H) The owner or operator of an affected facility must conduct a performance test for mercury emissions on a~~n~~ calendar year ~~annual~~ basis (no less than 9 calendar months and no more than 15~~2~~ calendar months from the previous performance test; and must complete five performance tests in each 5-year calendar period).
(I) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit must follow the procedures specified in section ~~OAR 340-230-0340~~(12) of this rule for measuring and calculating carbon usage.
(c) In place of cadmium and lead testing with **EPA Reference Method 29** or as an alternative **ASTM D6784-02**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring cadmium and lead emissions discharged to the atmosphere and record the output of the system according to the provisions of sections (13) and (14) of this rule.

(d) In place of mercury testing with **EPA Reference Method 29** or as an alternative **ASTM D6784-02**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system or a continuous automated sampling system for monitoring mercury emissions discharged to the atmosphere and record the output of the system according to the provisions of sections (13) and (14) of this rule, or sections (15) and (16) of this rule, as appropriate. The owner or operator who elects to continuously monitor mercury in place of mercury testing with **EPA Reference Method 29** or as an alternative **ASTM D6784-02** is not required to complete performance testing for mercury as specified in paragraph (4)(b)(H) of this rule~~section~~.

(5) The procedures and test methods specified in subsections (5)(a) through (l) of this rule~~below~~ must be used for determining compliance with the sulfur dioxide emission limit under OAR 340-230-0310(4).

~~(a) Compliance with the sulfur dioxide emission limit must be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.~~

(a~~b~~) **EPA Reference Method 19**, section 4.3, must be used to calculate the daily geometric average sulfur dioxide emission concentration.

(b~~c~~) **EPA Reference Method 19**, section 5.4, must be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.

(c~~d~~) The~~An~~ owner or operator of an affected facility may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.

(d) Compliance with the sulfur dioxide emission limit (concentration or percent reduction) must be determined by using the continuous emission monitoring system specified in subsection (5)(e) of this rule to measure sulfur dioxide and calculating 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using **EPA reference Method 19**, sections 4.3 and 5.4, as applicable.

(e) The owner or operator of an affected facility must install, evaluate, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system in accordance with **40 CFR 60.13**. ~~If showing compliance with the percent reduction standards, the owner or operator must also install, calibrate, maintain, and operate a continuous monitoring system for measuring the sulfur dioxide concentration at the inlet to the sulfur dioxide control device and record the output in accordance with **40 CFR 60.13**.~~

(f) Compliance with the sulfur dioxide emission limit must be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.

(g~~f~~) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (5)(g)(A) and (B) of this rule for ~~75~~90 percent of the operating hours per

~~day for 90 percent of the operating days per~~ calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
(A) At least two data points~~, separated by at least 15 minutes,~~ per hour must be used to calculate each 1-hour arithmetic average.
(B) Each sulfur dioxide 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(h~~g~~) The 1-hour arithmetic averages required under subsection (5)(f) of this rule must be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages must be calculated using the data points required under **40 CFR 60.13(e)(2)**.
(i~~h~~) All valid continuous emission monitoring system data must be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of subsection (5)(g) of this rule are not met.
(j~~i~~) The continuous emission monitoring system must be operated according to **Performance Specification 2** in **appendix B of 40 CFR 60**. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.
(A) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 2** in **appendix B** of **40 CFR 60**, sulfur dioxide and oxygen (or carbon dioxide) must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified ~~as follows:~~in subparagraphs (5)(j)(A)(i) and (ii) of this rule.
(i) For sulfur dioxide, **EPA Reference Method 6**, **6A**, or **6C**, or as an alternative **ASME PTC-19-10-1981-Part 10**, must be used.~~; and,~~
(ii) F~~f~~or oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, must be used.
(B) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device must be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device must be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.
(k~~j~~) Quarterly accuracy determinations and daily calibration tests must be performed in accordance with ~~p~~**Procedure 1** in **Appendix F** of **40 CFR 60**.
(l~~k~~) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and/or zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by the Department or **EPA Reference Method 19** to provide, as necessary, valid emissions data for a minimum of 90~~75~~ percent of the hours per calendar quarter~~day that the affected facility is~~

~~operated and combusting municipal solid waste for~~ and 9~~5~~0 percent of the hours ~~days~~ per calendar yearquarter that the affected facility is operated and combusting municipal solid waste.
(6) The procedures and test methods specified in subsections (6)(a) through (h) if this rule~~below~~ must be used for determining compliance with the hydrogen chloride emission limit under OAR 340-230-0310(5).
(a) **EPA Reference Method 26** or **26A**, as applicable, must be used to determine the hydrogen chloride emission concentration. The minimum sampling time for ~~**Method 26**~~ must be 1 hour.
(b) An oxygen (or carbon dioxide) measurement must be obtained simultaneously with each ~~**Method 26**~~ test run for hydrogen chloride required by subsection (6)(a) of this rule.
(c) The percent reduction in potential hydrogen chloride emissions (% PHCl) is computed using equation 2~~3~~: [Equation not included. See ED. NOTE.]
(d) The~~An~~ owner or operator of an affected facility may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.
(e) As specified under **40 CFR 60.8**, ~~A~~all performance tests must consist of ~~at least~~ three test runs. ~~conducted under representative full load operating conditions and at least two of the test runs must be valid.~~ The average of the hydrogen chloride emission concentrations from the~~all valid~~ three test runs is used to determine compliance.
(f) The owner or operator of an affected facility must conduct a performance test for hydrogen chloride emissions on a~~n annual~~ calendar year basis (no less than 9 calendar months and no more than ~~12~~15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
(g) In place of hydrogen chloride testing with **EPA Reference Method 26 or 26A**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system according to the provisions of sections (13) and (14) of this rule.
(7) The procedures and test methods specified in subsections (7)(a) through (h) of this rule~~below~~ must be used ~~by the owner or operator~~ to determine compliance with the limits for dioxin/furan emissions under OAR 340-230-0310(6).
(a) **EPA Reference Method 1** must be used for determining the location and number of sampling points.
(b) **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for flue gas analysis.
(c) **EPA Reference Method 23** must be used for determining the dioxin/furan emission concentration.
(A) The minimum sample time must be~~is~~ 4 hours per test run.
(B) An oxygen (or carbon dioxide) measurement must be obtained simultaneously with each **EPA Reference Method 23** test run for dioxins/furans.
(d) The owner or operator of an affected facility must conduct performance tests for dioxin/furan emissions in accordance~~ing~~ with subsection (7)(c) of this rule, according to one of the ~~following~~ schedules specified in paragraphs (7)(d)(A) through (C) of this rule.

(A) Performance tests must be conducted on ~~an~~ calendar year~~annual~~ basis (no less than 9 calendar months and no more than 15~~2~~ calendar months following the previous performance test~~.~~; and must complete five performance tests in each 5-year calendar period).

(B) For the purpose of evaluating system performance to establish new operating parameter levels, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions, the owner or operator of an affected facility that qualifies for the performance testing schedule specified in paragraph (7)(d)(C) of this rule, may test one unit for dioxin/furan and apply the dioxin/furan operating parameters to similarly designed and equipped units on site by meeting the requirements specified in subparagraphs (7)(d)(B)(i) through (iv) of this rule.

(i) Follow the testing schedule established in paragraph (7)(d)(C) of this rule. For example, each year a different affected facility at the municipal waste combustor plant must be tested, and the affected facilities at the plant must be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable).

(ii) Where such units use carbon to meet the applicable dioxin/furan emission limit, upon meeting the requirements in paragraph (7)(d)(C) of this rule for one affected facility, the owner or operator may elect to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels for dioxin/furan as established in section (13) of this rule to similarly designed and equipped units on site.

(iii) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph (7)(d)(C) of this rule, the dioxin/furan and mercury emissions of the subsequent unit must not exceed the dioxin/furan and mercury emissions measured in the most recent test of that unit prior to the revised operating parameter levels.

(iv) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (7)(d)(C) of this rule and apply the carbon injection system operating parameters to similarly designed and equipped units on site must follow the procedures specified in OAR 340-230-0350(3)(d) for reporting.

(C) Where all performance tests ~~for all affected facilities~~ over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions must be conducted on a calendar year basis~~annually~~ (no ~~more~~less than 9~~12~~ calendar months and no more than 15 months following the previous performance test; and must complete five performance tests in each 5-year calendar period) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant must be tested, and the affected facilities at the plant must be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per year. If any annual performance test indicates either a dioxin/furan emission level greater than 7 nanograms per dry standard cubic meter (total mass), performance tests thereafter must be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the

plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 7 nanaograms per dry standard cubic meter (total mass).
(e) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (7)(d)(C) of this rule must follow the procedures specified in OAR 340-230-0350(3)(d) for reporting the selection of this schedule.
(fe) The owner or operator of an affected facility where activated carbon is used ~~to comply with the dioxin/furan emission limits or the dioxin/furan emission level specified in OAR 340-230-0340(7)(d)~~ must follow the procedures specified in section (12) of this rule~~OAR 340-230-0340(13)~~ for measuring and calculating the carbon usage rate.
(gf) The~~An~~ owner or operator of an affected facility may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.
(hg) As specified under **40 CFR 60.8**, ~~A~~all performance tests must consist of ~~at least~~ three test runs ~~conducted under representative full load operating conditions and at least two of the test runs must be valid~~. The average of the dioxin/furan emission concentrations from the three~~all valid~~ test runs is used to determine compliance.
(ih) In place of dioxin/furan sampling and testing with **EPA Reference Method 23**, an owner or operator may elect to sample dioxin/furan by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions discharged to the atmosphere, recording the output of the system, and analyzing the sample using **EPA Reference Method 23**. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from monitors is published in the Federal Register or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility who elects to continuously sample dioxin/furan emissions instead of sampling and testing using **EPA Reference Method 23** must install, calibrate, maintain, and operate a continuous automated sampling system and must comply with the requirements specified in sections (15) and (16) of this rule.
(8) The procedures and test methods specified in subsections (8)(a) through (i) of this rule~~below~~ must be used to determine compliance with the nitrogen oxides emission limit for affected facilities.
(a) Compliance with the nitrogen oxides emission limit must be determined by using the continuous emission monitoring system specified in subsection ~~OAR 340-230-0340~~(8)(c) of this rule for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using **EPA Reference Method 19, section 4.1.**
(b) An owner or operator may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.
(c) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system ~~in accordance with **40 CFR 60.13**~~.
(d) At a minimum, valid continuous emission monitoring system hourly averages must be obtained as specified in paragraphs (8)(d)(A) and (B) of this rule for 90~~75~~ percent of the

operating hours per ~~day~~calendar quarter and for 95~~0~~ percent of the operating hours~~days~~ per calendar year~~quarter~~ that the affected facility is combusting municipal solid waste.
(A) At least 2 data points~~, separated by at least 15 minutes,~~ per hour must be used to calculate each 1-hour arithmetic average.
(B) Each nitrogen oxides 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(e) The 1-hour arithmetic averages must be expressed in parts per million by volume ~~corrected to 7 percent oxygen~~ (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages must be calculated using the data points required under 40 CFR 60.13(e)(2).
(f) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of subsection (8)(d) of this rule are not met.
(g) The owner or operator of an affected facility must operate the continuous emission monitoring system according to **Performance Specification 2** in **Appendix B** of **40 CFR 60** and must follow the procedures and methods specified in paragraphs (8)(g)(A) and (B) of this rule~~as follows:~~.
(A) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 2** in **Appendix B** of **40 CFR 60**, nitrogen oxides and oxygen (or carbon dioxide) must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified ~~as follows:~~in subparagraphs (8)(g)(A)(i) and (ii) of this rule.
(i) For nitrogen oxides, **EPA Reference Methods 7, 7A, 7C, 7D**, or **7E** must be used.~~; and,~~
(ii) ~~f~~For oxygen (or carbon dioxide), **EPA Reference Method 3, 3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used.
(B) The span value of the continuous emission monitoring system must be~~is~~ 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.
(h) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with ~~p~~**Procedure 1** in **Appendix F of 40 CFR Part 60**.
(i) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained using other monitoring systems as approved by the Department or **EPA Reference Method 19** to provide, as necessary, valid emissions data for a minimum of 90~~75~~ percent of the hours per ~~day~~calendar quarter and ~~for~~ 95~~0~~ percent of the ~~days~~hours per calendar ~~quarter~~year the unit is operated and combusting municipal solid waste.
~~(9) The procedures specified below must be used for determining compliance with the opacity limit for air curtain incinerators.~~
~~(a) **EPA Reference Method 9** must be used to determine compliance with the opacity limit.~~
~~(b) The owner or operator of the air curtain incinerator must conduct an initial performance test for opacity as required by **40 CFR Part 60.8**.~~
~~(c) Following the date that the initial performance test is completed the owner or operator of the air curtain incinerator must conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test).~~

(9~~10~~) The procedures specified in subsections (9)(a) through (k) of this rule~~below~~ must be used for determining compliance with the operating requirements under OAR 340-230-0320.

(a) Compliance with the carbon monoxide emission limits in OAR 340-230-0320(1) must be determined using a 4-hour block arithmetic average.

(b~~a~~) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system ~~in accordance with **40 CFR 60.13** and~~ must ~~the~~ follow~~ing~~ the procedures and methods specified in paragraphs (9)(a)(A) through (C) of this rule:

~~(A) Compliance with the carbon monoxide emission limits must be determined using a 4-hour block arithmetic average.~~

~~(B) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system following the procedures below.~~

(A~~i~~) The continuous emission monitoring system must be operated according to **Performance Specification 4A** in **Appendix B** of **40 CFR 60~~, Appendix B~~**.

(B~~ii~~) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 4A** in **Appendix B** of **40 CFR Part 60**, carbon monoxide and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified ~~as follows~~in subparagraphs (9)(b)(B)(i) and (ii) of this rule.~~:~~ For affected facilities subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.

(i) ~~F~~For carbon monoxide, **EPA Reference Methods 10**, **10A**, or **10B** must be used.~~; and,~~

(ii) F~~f~~or oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, or **ASME PTC-19-10-1981--Part 10** (incorporated by reference, see **40 CFR 60.17**), as applicable, must be used.

(C~~iii~~) The span value of the continuous emission monitoring system must be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.

(c~~E~~) The 4-hour block ~~and 24-hour~~ daily arithmetic averages specified in subsection (9)(a) of this rule must be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages must be calculated using the data points generated by the continuous emission monitoring system. At least two data points~~, separated by at least 15 minutes, per hour~~ must be used to calculate each 1-hour arithmetic average.

(d~~F~~) The~~An~~ owner or operator of an affected facility may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.

~~(G) At a minimum, valid continuous emission monitoring system hourly averages must be obtained for 75 percent of the hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.~~

~~(H) All valid continuous emission monitoring system data must be used in calculating carbon monoxide emission even if the minimum data requirements are not met.~~

~~(I) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system must be performed in accordance with procedure 1 of 40 CFR 60, Appendix F (2002).~~
(~~c~~b) The procedures specified in paragraphs (9)(e)(A) through (D) of this rule~~below~~ must be used ~~by the owner or operator~~ to determine compliance with load level requirements under OAR 340-230-0320(2).
(A) The owner or operator of an affected facility with steam generation capability must install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow must be calculated in 4-hour block arithmetic averages.
(B) The method included in the "**American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1 -- 1964 (R1991)**" section 4 (incorporated by reference, see **40 CFR 60.17**) must be used for calculating the steam (or feedwater) flow required under paragraph (9)(c)(A) of this rule. The recommendations in "**American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971),**" chapter 4 (incorporated by reference -- see **40 CFR 60.17~~(h)(3)~~**) must be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified ~~below~~ in paragraph (9)(e)(C) of this rule:
(C~~i~~) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.
(D~~ii~~) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.
~~(C) The owner or operator of an affected facility without steam generation capability is not required to monitor unit load.~~
~~(D) The maximum demonstrated municipal waste combustor unit load must be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.~~
(f~~e~~) To determine compliance with the maximum particulate matter control device temperature requirements under OAR 340-230-0320(3), the owner or operator of an affected facility must install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility.
~~(A)~~ Temperature must be calculated in 4-hour block arithmetic averages.
(g) The maximum demonstrated municipal waste combustor unit load must be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in OAR 340-230-0310(6) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (7)(d)(C) of this rule, the owner or operator may elect to apply the same

maximum municipal waste combustor unit load from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
(hB) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature must be determined during each performance test during which compliance with the dioxin/furan emission limit specified in OAR 340-230-0310(6) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (7)(d)(C) of this rule, the owner or operator may elect to apply the same maximum particulate matter control device temperature from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
(id) At a minimum, valid continuous emission ~~load level and control device inlet temperature~~ monitoring system hourly averages must be obtained as specified in paragraphs (9)(i)(A) and (B) of this rule for at least 9075 percent of the operating hours per ~~day~~calendar quarter and~~for~~ 950 percent of the operating ~~days~~hours per calendar ~~quarter~~year that the affected facility is combusting municipal solid waste.
(A) At least two data points~~, separated by at least 15 minutes,~~ per hour must be used to calculate each 1-hour arithmetic average.
(B) At a minimum, each carbon monoxide 1-hour arithmetic must be corrected to 7-percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(jB) All valid continuous emission monitoring system data must be used in calculating the parameters specified under ~~OAR 340-230-0340(9)~~ section (9) of this rule even if the minimum data requirements of subsection (9)(i) of this rule are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained using other monitoring systems as approved by the Department or **EPA Reference Method 10** to provide, as necessary, the minimum valid emission data.
(k) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system must be performed in accordance with **Procedure 1** in **appendix F** of **40 CFR part 60**.
(10~~11~~) The procedures specified in subsections (10)(a) an (b) of this rule~~below~~ must be used for calculating municipal waste combustor unit capacity as defined by **40 CFR 60.51b**~~-~~.
(a) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity~~, in megagrams per day of municipal solid waste combusted,~~ must be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate must be determined ~~by one of the following procedures~~as specified in paragraphs (10)(a)(A) and (B) of this rule, as applicable:
(A) For combustors that are designed based on heat capacity, the maximum charging rate must be calculated based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.

(B) For combustors that are not designed based on heat capacity, the maximum charging rate shall be~~is~~ the maximum design charging rate.
(b) For batch feed municipal waste combustor units, municipal waste combustor unit capacity~~, in megagrams per day of municipal solid waste combusted,~~ must be calculated as the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period. The maximum number of batches that could be processed in a 24-hour period is calculated as 24 hours divided by the design number of hours required to process one batch of municipal solid waste, and may include fractional batches (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period). For batch combustors that are designed based on heat capacity, the design heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel must be used in calculating the municipal waste combustor unit capacity in megagrams per day of municipal solid waste.
(11~~12~~) The procedures specified in subsections (11)(a) through (c) of this rule ~~below~~ must be used for determining compliance with the fugitive ash emission limit under OAR 340-0230-0335.
(a) **EPA Reference Method 22** must be used for determining compliance with the fugitive ash emission limit under OAR 340-0230-0335. The minimum observation time must be a series of three 1-hour observations. The observation period must include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.
(b) The average duration of visible emissions per hour must be calculated from the three 1-hour observations. The ~~Department will use the~~ average must be used to determine compliance with OAR 340-0230-0335.
(c) The owner or operator of an affected facility must conduct a performance test for fugitive ash emissions on ~~an annual~~ calendar year basis (no ~~more~~less than 9~~12~~ calendar months and no more than 15 months following the previous performance tests~~;~~ and must complete five performance tests in each 5-year period).
(12~~13~~) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit under OAR 340-230-0310(3)(c), ~~or~~ the dioxin/furan emission limits under OAR 340-230-0310(6), or the dioxin/furan emission level specified in paragraph ~~OAR 340-230-0340~~(7)(d)(C) of this rule must follow the procedures specified ~~below:~~in subsections (12)(a) through (d) of this rule.
(a) During ~~any~~the performance tests for dioxins/furans and mercury, as applicable, the owner or operator must estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified ~~below~~ in paragraphs (12)(a)(A) and (B) of this rule.~~:~~
(A) An average carbon mass feed rate in kilograms per hour or pounds per hour must be estimated during each performance test for mercury emissions.
(B) An average carbon mass feed rate in kilograms per hour or pounds per hour must be estimated during each performance test for dioxin/furan emissions, if applicable. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (7)(d)(C) of this rule, the owner or operator may elect to apply the same

estimated average carbon mass feed rate from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
(b) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must be averaged over a block 8-hour period, and the 8-hour average must equal or exceed the level(s) documented during the performance tests specified under paragraphs (12)(a)(A) and~~or~~ (B) of this rule~~section~~, except as specified in paragraphs (12)(b)(A) and (B) of this rule.
(A) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for average mass carbon feed rate if the provisions of paragraph (12)(b)(B) of this rule are met.
(B) The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.
(c) The owner or operator must estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (12)(c)(A) and (B) of this rule.~~specified below:~~
(A) The weight of carbon delivered to the plant.
(B) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under subsection (12)(a) of this rule~~section~~, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.
(d) Pneumatic injection pressure or other carbon injection system operational indicator must be used to provide additional verification of proper carbon injection system operation. The operational indicator must provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate (e.g., continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate (e.g., screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, must be included in subsection (5)(f) of this rule of the site-specific operating manual required under OAR 340-230-0330(4).
(13) In place of periodic manual testing of mercury, cadmium, lead, or hydrogen chloride with **EPA Reference Method 26, 26A, 29**, or as an alternative **ASTM D6784-02** (as applicable), affected facilities may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring emissions discharged to the atmosphere and record the output of the system. The option to use a continuous emission monitoring system for mercury takes effect on the date of approval of the site-specific monitoring plan required in subsection (13)(m) of this rule and section (14) of this rule. The option to use a continuous emission monitoring system for cadmium, lead, or hydrogen chloride takes effect on the date a final performance specification applicable to cadmium, lead, or hydrogen chloride monitor is published in the Federal Register or the date of approval of the site-specific monitoring plan required in subsection (13)(m) of this rule and section (14) of this rule. The owner or operator of an affected facility who elects to continuously monitor emissions instead of conducting manual performance

testing must install, calibrate, maintain, and operate a continuous emission monitoring system and must comply with the requirements in subsections (13)(a) through (n) of this rule.

(a) Notify the Administrator and the Department one month before starting use of the system.

(b) Notify the Administrator and the Department one month before stopping use of the system.

(c) The monitor must be installed, evaluated, and operated in accordance with **40 CFR 60.13**.

(d) The initial performance evaluation must be completed no later than 180 days after the date of initial startup of the affected facility, as specified under **40 CFR 60.8** or within 180 days of notification to the Administrator and the Department of use of the continuous monitoring system if the owner or operator was previously determining compliance by **EPA Reference Method 26, 26A, 29**, or as an alternative **ASTM D6784-02** (as applicable) performance tests, whichever is later.

(e) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.

(f) The owner or operator must conduct an initial performance test for emissions as required under **40 CFR 60.8**. Compliance with the emission limits must be determined by using the continuous emission monitoring system specified in section (13) of this rule to measure emissions and calculating a 24-hour block arithmetic average emission concentration using **EPA Reference Method 19**, section 12.4.1.

(g) Compliance with the emission limits must be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.

(h) Beginning on April 28, 2008 for mercury and on the date two years after final performance specifications for cadmium, lead or hydrogen chloride monitors are published in the Federal Register or the date two years after approval of a site-specific monitoring plan, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (13)(h)(A) and (B) of this rule for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(A) At least two data points per hour must be used to calculate each 1-hour arithmetic average.

(B) Each 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(i) The 1-hour arithmetic averages required under subsection (13)(g) of this rule must be expressed in micrograms per dry standard cubic meter for mercury, cadmium, lead and parts per million dry volume for hydrogen chloride corrected to 7 percent oxygen (dry basis) and must be used to calculate the 24-hour daily arithmetic (block) average emission concentrations. The 1-hour arithmetic averages must be calculated using the data points required under **40 CFR 60.13(e)(2)**.

(j) All valid continuous emission monitoring system data must be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of subsection (13)(h) of this rule are not met.

(k) The continuous emission monitoring system for mercury must be operated according to **Performance Specification 12A in 40 CFR part 60 appendix B** or the approved site-specific monitoring plan.

(l) During each relative accuracy test run of the continuous emission monitoring system required by the performance specifications in subsection (13)(k) of this rule, mercury, cadmium, lead, hydrogen chloride, and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (13)(l)(A) through (C) of this rule.

(A) For mercury, cadmium, and lead, **EPA Reference Method 29** or as an alternative **ASTM D6784-02** must be used.

(B) For hydrogen chloride, **EPA Reference Method 26** or **26A** must be used.

(C) For oxygen (or carbon dioxide), **EPA Reference Method 3, 3A**, or **3B**, as applicable must be used.

(m) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and implement a site-specific monitoring plan as specified in section (14) of this rule. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.

(n) When emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, parametric monitoring data must be obtained by using other monitoring systems as approved by EPA.

(14) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and submit for approval by EPA, a site-specific mercury, cadmium, lead, or hydrogen chloride monitoring plan that addresses the elements and requirements in subsections (14)(a) through (g) of this rule.

(a) Installation of the continuous emission monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(b) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.

(c) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(d) Provisions for periods when the continuous emission monitoring system is out of control as described in paragraphs (14)(d)(A) through (C) of this rule.

(A) A continuous emission monitoring system is out of control if either of the conditions in subparagraph (14)(d)(A)(i) or (ii) of this rule are met.

(i) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard; or

(ii) The continuous emission monitoring system fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(B) When the continuous emission monitoring system is out of control as defined in paragraph (14)(d)(A) of this rule, the owner or operator of the affected source must take the necessary corrective action and must repeat all necessary tests that indicate that the system is out of control.

The owner or operator must take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the continuous emission monitoring system is out of control, recorded data shall not be used in data averages and calculations or to meet any data availability requirements in subsection (13)(h) of this rule.
(C) The owner or operator of a continuous emission monitoring system that is out of control as defined in subsection (14)(d) of this rule must submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in OAR 340-230-0350(3) or (4).
(e) Ongoing data quality assurance procedures for continuous emission monitoring systems as described in paragraphs (14)(e)(A) and (B) of this rule.
(A) Develop and implement a continuous emission monitoring system quality control program. As part of the quality control program, the owner or operator must develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous emission monitoring system performance evaluation required in paragraph (14)(e)(B) of this rule. In addition, each quality control program must include, at a minimum, a written protocol that describes procedures for each of the operations described in subparagraphs (14)(e)(A)(i) through (vi) of this rule.
(i) Initial and any subsequent calibration of the continuous emission monitoring system;
(ii) Determination and adjustment of the calibration drift of the continuous emission monitoring system;
(iii) Preventive maintenance of the continuous emission monitoring system, including spare parts inventory;
(iv) Data recording, calculations, and reporting;
(v) Accuracy audit procedures, including sampling and analysis methods; and
(vi) Program of corrective action for a malfunctioning continuous emission monitoring system.
(B) The performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program must include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous emission monitoring system performance, for example, plans for relative accuracy testing using the appropriate reference method. The external quality assurance program must include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator or the Department of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
(f) Conduct a performance evaluation of each continuous emission monitoring system in accordance with the site-specific monitoring plan.
(g) Operate and maintain the continuous emission monitoring system in continuous operation according to the site-specific monitoring plan.

(15) In place of periodic manual testing of dioxin/furan or mercury with **EPA Reference Method 23, 29**, or as an alternative **ASTM D6784-02** (as applicable), the owner or operator of an affected facility may elect to install, calibrate, maintain, and operate a continuous automated sampling system for determining emissions discharged to the atmosphere. This option takes effect on the date a final performance specification applicable to such continuous automated sampling systems is published in the Federal Register or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility who elects to use a continuous automated sampling system to determine emissions instead of conducting manual performance testing must install, calibrate, maintain, and operate the sampling system and conduct analyses in compliance with the requirements specified in subsections (15)(a) through (k) of this rule.

(a) Notify the Administrator and the Department one month before starting use of the system.

(b) Notify the Administrator and the Department one month before stopping use of the system.

(c) The initial performance evaluation must be completed within 180 days of notification to the Administrator and the Department of use of the continuous monitoring system if the owner or operator was previously determining compliance by manual performance testing using Method 23, 29, or as an alternative **ASTM D6784-02** (as applicable), whichever is later.

(d) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.

(e) The owner or operator must conduct an initial performance test for emissions as required under **40 CFR 60.8**. Compliance with the emission limits must be determined by using the continuous automated sampling system specified in section (15) of this rule to collect integrated samples and analyze emissions for the time period specified in paragraphs (15)(e)(A) and (B) of this rule.

(A) For dioxin/furan, the continuous automated sampling system must collect an integrated sample over each 2-week period. The collected sample must be analyzed using **EPA Reference Method 23.**

(B) For mercury, the continuous automated sampling system must collect an integrated sample over each 24-hour daily period and the sample must be analyzed according to the applicable final performance specification or the approved site-specific monitoring plan required by section (16) of this rule.

(f) Compliance with the emission limits must be determined based on 2-week emission concentrations for dioxin/furan and on the 24-hour daily emission concentrations for mercury using samples collected at the system outlet. The emission concentrations must be expressed in nanograms per dry standard cubic meter (total mass) for dioxin/furan and micrograms per dry standard cubic meter for mercury, corrected to 7 percent oxygen (dry basis).

(g) Beginning on the date two years after the respective final performance specification for continuous automated sampling systems for dioxin/furan or mercury is published in the **Federal Register** or two years after approval of a site-specific monitoring plan, the continuous automated sampling system must be operated and collect emissions for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(h) All valid data must be used in calculating emission concentrations.

(i) The continuous automated sampling system must be operated according to the final performance specification or the approved site-specific monitoring plan.
(j) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and implement a site-specific monitoring plan as specified in section (16) of this rule. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.
(k) When emissions data are not obtained because of continuous automated sampling system breakdowns, repairs, quality assurance checks, or adjustments, parametric monitoring data must be obtained by using other monitoring systems as approved by EPA.
(16) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and submit for approval by EPA, a site-specific monitoring plan that has sufficient detail to assure the validity of the continuous automated sampling system data and that addresses the elements and requirements in subsections (16)(a) through (g) of this rule.
(a) Installation of the continuous automated sampling system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).
(b) Performance and equipment specifications for the sample interface, the pollutant concentration analytical method, and the data collection system.
(c) Performance evaluation procedures and acceptance criteria.
(d) Provisions for periods when the continuous automated sampling system is malfunctioning or is out of control as described in paragraphs (16)(d)(A) through (C) of this rule.
(A) The site-specific monitoring plan must identify criteria for determining that the continuous automated sampling system is out of control. This includes periods when the sampling system is not collecting a representative sample or is malfunctioning, or when the analytical method does not meet site-specific quality criteria established in subsection (16)(e) of this rule.
(B) When the continuous automated sampling system is out of control as defined in paragraph (16)(d)(A) of this rule, the owner or operator must take the necessary corrective action and must repeat all necessary tests that indicate that the system is out of control. The owner or operator must take corrective action and conduct retesting until the performance requirements are within the applicable limits. The out-of-control period includes all hours that the sampling system was not collecting a representative sample or was malfunctioning, or hours represented by a sample for which the analysis did not meet the relevant quality criteria. Emissions data obtained during an out-of-control period shall not be used in determining compliance with the emission limits or to meet any data availability requirements in subsection (15)(h) of this rule.
(C) The owner or operator of a continuous automated sampling system that is out of control as defined in subsection (16)(d) of this rule must submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in OAR 340-230-0350(3) or (4).
(e) Ongoing data quality assurance procedures for continuous automated sampling systems as described in paragraphs (16)(e)(A) and (B) of this rule.
(A) Develop and implement a continuous automated sampling system and analysis quality control program. As part of the quality control program, affected facilities must develop and

submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous automated sampling system performance evaluation required in paragraph (16)(e)(B) of this rule. In addition, each quality control program must include, at a minimum, a written protocol that describes procedures for each of the operations described in subparagraphs (16)(e)(A)(i) through (vii) of this rule.
(i) Correct placement, installation of the continuous automated sampling system such that the system is collecting a representative sample of gas;
(ii) Initial and subsequent calibration of flow such that the sample collection rate of the continuous automated sampling system is known and verifiable;
(iii) Procedures to assure representative (e.g., proportional or isokinetic) sampling;
(iv) Preventive maintenance of the continuous automated sampling system, including spare parts inventory and procedures for cleaning equipment, replacing sample collection media, or other servicing at the end of each sample collection period;
(v) Data recording and reporting, including an automated indicator and recording device to show when the continuous automated monitoring system is operating and collecting data and when it is not collecting data;
(vi) Accuracy audit procedures for analytical methods; and
(vii) Program of corrective action for a malfunctioning continuous automated sampling system.
(B) The performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program must include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous automated sampling system performance, for example, plans for relative accuracy testing using the appropriate reference method in subsection (15)(c) of this rule, and an assessment of quality of analysis results. The external quality assurance program must include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator or the Department of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
(f) Conduct a performance evaluation of each continuous automated sampling system in accordance with the site-specific monitoring plan.
(g) Operate and maintain the continuous automated sampling system in continuous operation according to the site-specific monitoring plan.
(17~~14~~) Continuous monitoring for opacity, sulfur dioxide, nitrogen oxides, carbon monoxide,and diluent gases (oxygen or carbon dioxide) must be conducted in accordance with the Department's Continuous Monitoring Manual and the specific requirements of this rule. If at any time there is a conflict between the Department's **Continuous Monitoring Manual** and the federal requirements contained in **40 CFR 60.13**, **Appendix B** and **Appendix F**), the federal requirements must govern.
[Publications: Publications & Equation referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.02
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0990; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0350
Recordkeeping and Reporting

(1) The owner or operator of an affected facility subject to the standards contained in OAR 340-230-031000 through 340-230-033500 must maintain records of the ~~applicable~~ information specified in subsections (1)(a) through (l) of this rule ~~specified below~~, as applicable, for each affected facility for a period of at least 5 years. The information must be available for submittal to the Department or for review onsite by an inspector.

(a) The calendar date of each record.

(b) The ~~following~~ emission concentrations and parameters measured using continuous monitoring systems as specified in paragraphs (1)(b)(A) and (B) of this rule:

(A) The measurements specified in subparagraphs (1)(b)(A)(i) through (v) of this rule must be recorded and be available for submittal to the Department or review on-site by Department inspector:

(i~~A~~) All 6-minute average opacity levels as specified under OAR 340-230-0340(3).

(ii~~B~~) All 1-hour average sulfur dioxide emission concentrations as specified under OAR 340-230-0340(5).

(iii~~C~~) All 1-hour average nitrogen oxides emission concentrations as specified under OAR 340-230-0340(8).

(iv~~D~~) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements (if applicable), and particulate matter control device inlet temperatures as specified under OAR 340-230-0340(9).

(v) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 1-hour average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under OAR 340-230-0340(13).

(B) The average concentrations and percent reductions, as applicable, specified in subparagraphs (1)(b)(B)(i) through (vi) of this rule must be computed and recorded, and must be available for submittal to the Department or review on-site by Department inspector.

(i~~E~~) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under OAR 340-230-0340(5).

(ii~~F~~) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under OAR 340-230-0340(8).

(iii~~G~~) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under OAR 340-230-0340(9).

(iv~~H~~) All 4-hour block arithmetic average municipal waste combustor unit load levels (if applicable) and particulate matter control device inlet temperatures as specified under OAR 340-230-0340(9).

(v) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 24-hour daily arithmetic average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under OAR 340-230-0340(13).

(vi) For owners and operators who elect to use a continuous automated sampling system to monitor mercury or dioxin/furan instead of conducting performance testing using EPA manual test methods, all integrated 24-hour mercury concentrations or all integrated 2-week dioxin/furan concentrations as specified under OAR 340-230-0340(15).
(c) Identification of the calendar dates when any of the average ~~opacity levels,~~ emission concentrations, percent reductions, or operating parameters recorded under subparagraphs (1)(b)(B)(i) through (vi) of this rule, or the opacity levels recorded under subparagraph (1)(b)(A)(i) of this rule ~~OAR 340-230-0350(1)(b)~~ are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
(d) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (1)(d)(A) through (E) of this rule~~below~~:
(A) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as specified under OAR 340-230-0340(12)(a)(A) during each mercury emissions performance test, with supporting calculations.
(B) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as specified under OAR 340-230-0340(12)(a)(B) during each dioxin/furan emissions performance test, with supporting calculations.
(C) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as specified under OAR 340-230-0340(12)(c)(B), with supporting calculations.
(D) The total carbon usage for each calendar quarter estimated as specified under OAR 340-230-0340(12)(c), with supporting calculations.
(E) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).
(e) Identification of the calendar dates and times (hours) for which valid hourly ~~the minimum number of hours of any of the~~ data specified ~~below~~ in paragraphs (1)(e)(A) through (F) of this rule have not been obtained, or continuous automated sampling systems were not operated as specified in paragraph (1)(e)(G) of this rule, including reasons for not obtaining the~~sufficient~~ data and a description of corrective actions taken.
(A) Sulfur dioxide emissions data;
(B) Nitrogen oxides emissions data;
(C) Carbon monoxide emissions data;
(D) Municipal waste combustor unit load data; ~~and~~
(E) Particulate matter control device temperature data; and.
~~(F) For affected facilities that apply activated carbon for mercury or dioxin/furan control, carbon usage and carbon injection system operating parameter data.~~
(F) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of performance testing by EPA manual test methods, particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions data.
(G) For owners and operators who elect to use continuous automated sampling systems for dioxins/furans or mercury as allowed under OAR 340-230-0340(15) and (16), dates and times when the sampling systems were not operating or were not collecting a valid sample.
(f) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data, particulate matter emissions data, cadmium emissions data, lead emissions data, mercury emissions data, hydrogen chloride emissions data, or dioxin/furan emissions data (for

owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods) or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
(g) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required by **40 CFR part 60** ~~60.13 and Procedure 1 of 40 CFR 60.13, A~~ **appendix F**, procedure 1.
(h) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (1)(h)(A) and (B) of this rule must ~~conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits, including the oxygen/carbon dioxide relationship (if applicable according to OAR 340-230-0340(2)(e))~~ be recorded along with supporting calculations ~~and the following information~~:
(A) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
(B~~A~~) For the initial ~~first~~ dioxin/furan performance test ~~conducted after December 31, 1997~~ and all subsequent dioxin/furan performance tests recorded under paragraph (1)(h)(A) of this rule, the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).~~; and~~
~~(B) For affected facilities that apply carbon for mercury or dioxin/furan control, the average carbon injection rate during the first mercury or dioxin/furan performance test conducted after December 31, 1997 and all subsequent mercury or dioxin/furan performance tests.~~
(i) An owner or operator who elects to continuously monitor emissions instead of performance testing by EPA manual methods must maintain records specified in paragraphs (1)(i)(A) through (C) of this rule.
(A) For owners and operators who elect to continuously monitor particulate matter instead of conducting performance testing using EPA manual test methods, as required under **40 CFR part 60 appendix F**, procedure 2, the results of daily drift tests and quarterly accuracy determinations for particulate matter.
(B) For owners and operators who elect to continuously monitor cadmium, lead, mercury, or hydrogen chloride instead of conducting EPA manual test methods, the results of all quality evaluations, such as daily drift tests and periodic accuracy determinations, specified in the approved site-specific performance evaluation test plan required by OAR 340-230-0340(14)(e).
(C) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the results of all quality evaluations specified in the approved site-specific performance evaluation test plan required by OAR 340-230-0340(16)(e).
(j~~i~~) Training records ~~as~~ specified ~~below~~in paragraphs (1)(j)(A) through (DE) of this rule~~subsection~~.~~:~~
(~~C~~A) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as

required by OAR 340-230-0330(1), including the dates of initial and renewal certifications and documentation of current certification.
(~~D~~B) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by OAR 340-230-0330(2), including the dates of initial and renewal certifications and documentation of current certification.
(~~E~~C) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion.
(D) Records of when a certified operator is temporarily off site. Include two main items:
(i) If the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates that the certified chief facility operator and certified shift supervisor were off site.
(ii) When all certified chief facility operators and certified shift supervisors are off site for more than 2 weeks and no other certified operator is on site, keep records of four items:
(I) Time of day that all certified persons are off site.
(II) The conditions that cause those people to be off site.
(III) The corrective actions taken by owner or operator of the affected facility to ensure a certified chief facility operator or certified shift supervisor is on site as soon as practicable.
(IV) Copies of the written reports submitted every 4 weeks that summarize the actions taken by the owner or operator of the affected facility to ensure that a certified chief facility operator or certified shift supervisor will be on site as soon as practicable.
(k~~F~~) Records showing the names of persons who have completed a review of the operating manual as required by OAR 340-230-0330(5), including the date of the initial review and subsequent annual reviews.
(l~~i~~) For affected facilities that apply activated carbon for mercury or dioxin/furan control:
(A) Identification of the calendar dates when the average carbon mass feed rates were less than either of the hourly carbon feed rates estimated during performance tests for mercury or dioxin/furan emissions with reasons for such feed rates and a description of corrective actions taken.
(B) Identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under OAR 340-230-0340(12)(a)(A) and (B) are below the level(s) estimated during the performance tests, with reasons for such occurrences and a description of corrective actions taken.
~~(j) For affected facilities installing additional controls, records of semi-annual progress reports.~~
(2) The owner or operator of an affected facility must submit the ~~following~~ information specified in subsections (2)(a) through (f) of this rule in a performance test report within 60 days following the completion of each performance test.~~:~~
(a) The performance test data as recorded under subparagraphs (1)(b)(B)(i) through (iv) of this rule for each performance test for sulfur dioxide, nitrogen oxide, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.

(ba) The test report documenting the performance test recorded under subsection (1)(h) of this rule for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, fugitive ash emissions.; ~~(b) The oxygen/carbon dioxide relationship established in accordance with OAR 340-230-0340(2)(e), if applicable;~~
~~(c) Data as recorded under paragraphs (1)(b)(A) and (1)(b)(E) through (1)(b)(H) of this rule for three consecutive days coinciding with each performance test;~~
(cd) ~~Unless previously submitted, t~~The performance evaluation of the continuous emission monitoring systems using the applicable performance specifications in **40 CFR 60.~~13~~ ~~A~~appendix B.;
(de) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the dioxin/furan performance test.;
(e~~f~~) For affected facilities that apply activated carbon injection for mercury control, the owner or operator must submit the average carbon mass feed rate recorded during the mercury performance test.; ~~and~~
(fg) For affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator must submit the average carbon mass feed rate recorded during the dioxin/furan performance test.
(3) The owner or operator of an affected facility must submit semi-annual reports that include~~sing~~ the ~~following~~ information specified in subsections (3)(a) through (e) of this rule, as applicable, no later than July 30 for the first six months of each calendar year and February 1 for the second six months of each calendar year.
(a) A summary of data collected for all pollutants and parameters regulated under this rule, which includes the ~~following~~ information specified in paragraphs (3)(a)(A) through (E) of this rule:
(A) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during any performance tests conducted during the reporting period.
(B) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan emissions instead of conducting performance testing using EPA manual test methods), municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded during the reporting period.
(C) List the highest opacity level ~~measured~~measured ~~and~~ based on the data recorded during the reporting period.
(D) Periods when valid ~~The total number of days that the minimum number of hours of data for opacity, sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature~~ data were not obtained as described in subparagraphs (3)(a)(D)(i) through (iii) of this rule~~based on the data recorded during the reporting period~~.
(i) The total number of hours per calendar quarter and hours per calendar year that valid data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, or

particulate matter control device temperature data were not obtained based on the data recorded during the reporting period.
(ii) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, and hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours per calendar quarter and hours per calendar year that valid data for particulate matter, cadmium, lead, mercury, and hydrogen chloride were not obtained based on the data recorded during the reporting period. For each continuously monitored pollutant or parameter, the hours of valid emissions data per calendar quarter and per calendar year expressed as a percent of the hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.
(iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours per calendar quarter and hours per calendar year that the sampling systems were not operating or were not collecting a valid sample based on the data recorded during the reporting period. Also, the number of hours during which the continuous automated sampling system was operating and collecting a valid sample as a percent of hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.
(E) Periods when valid data ~~The total number of hours that data for opacity, sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature~~ were excluded from the calculation of average emission concentrations or parameters ~~based on the data recorded during the reporting period,~~ as described subparagraphs (3)(a)(E)(i) through (iii) of this rule.
(i) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded during the reporting period.
(ii) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours that data for particulate matter, cadmium, lead, mercury, or hydrogen chloride were excluded from the calculation of average emission concentrations or parameters based on the data recorded during the reporting period.
(iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours that data for mercury and dioxin/furan were excluded from the calculation of average emission concentrations or parameters based on the data recorded during the reporting periods.
(b) The summary of data reported under subsection (3)(a) of this rule~~OAR 340-230-0350(3)(a)~~ must also provide the types of data specified in subsection (3)(a)(A) through (E) of this rule~~OAR 340-230-0350(3)(a)~~ for the calendar year preceding the year being reported, in order to provide the Department with a summary of the performance of the affected facility over a 2-year period.
(c) The summary of data including the information specified in subsections (3)(a) and (b) of this rule~~OAR 340-230-0350(3)(a) and (b)~~ must highlight any emission or parameter levels that did not achieve the emission or parameter limits specified by OAR 340-230-0310 through 340-230-0320.
(d) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in OAR 340-230-0340(7)(d)(C) during the following calendar year and notification of

intent to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels as established in OAR 340-230-0340(12) to similarly designed and equipped units on site.
(e) Documentation periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours.
(4) The owner or operator of an affected facility must submit a semiannual report that includes the ~~following~~ information specified in subsections (4)(a) through (e) of this rule for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit by July 30 for the first six months of each calendar year and February 1 for the second six months of each calendar year.
(a) The semiannual report must include information recorded under subsection (1)(c) of this rule for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or that elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods), municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.
(b) For each date recorded under subsection (1)(c) of this rule and reported, as required by subsection (4)(a) of this rule, the semiannual report must include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, ~~and as~~ recorded ~~by~~under subparagraphs (1)(b)(A)(i) and (1)(b)(~~B~~A)(i) through (iv) ~~and (E) through (H)~~ of this rule, as applicable.
(c) If the test reports recorded under subsection (1)(h) of this rule document any particulate matter, opacity, cadmium, lead, mercury, dioxins/ furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report must include a copy of the test report documenting the emission levels and the corrective actions taken.
(d) The semiannual report must include the information recorded under subparagraph (1)(~~I~~j)(B) of this rule for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.
(e) For each operating date reported as required under subsection (4)(d) of this rule, the semiannual report must include the carbon feed rate data recorded under paragraph (1)(d)(C) of this rule.
(5) All reports specified under sections (2) through (4) of this rule~~OAR 340-230-0350(2), (3), and (4)~~ must be submitted as a paper copy, postmarked on or before the submittal dates specified, and maintained onsite as a paper copy for a period of 5 years.
(6) All records specified under section (1) of this rule~~OAR 340-230-0350(1)~~ must be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Department.
(7) If the~~an~~ owner or operator of an affected facility would prefer to select a different annual or semiannual date for submitting the periodic reports required under paragraphs (3) and (4) of this rule, then the dates may be changed in an Oregon Title V Operating Permit by mutual agreement between the owner or operator and the Department according to the procedures specified in 40 CFR 60.19(c).

(8) Owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods must notify the Administrator and the Department one month prior to starting or stopping use of the particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan continuous emission monitoring systems or continuous automated sampling systems.

(9) Additional recordkeeping and reporting requirements for affected facilities with continuous cadmium, lead, mercury, or hydrogen chloride monitoring systems. In addition to complying with the requirements specified in sections (1) through (8) of this rule, the owner or operator of an affected source who elects to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride as specified in OAR 340-230-0340(13), must maintain the records in subsections (9)(a) through (j) of this rule and report the information in subsections (9)(k) and (l) of this rule, relevant to the continuous emission monitoring system:

(a) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods).

(b) The date and time identifying each period during which the continuous emission monitoring system was inoperative except for zero (low-level) and high-level checks.

(c) The date and time identifying each period during which the continuous emission monitoring system was out of control, as defined in OAR 340-230-0340(14)(d).

(d) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source.

(e) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(f) The nature and cause of any malfunction (if known).

(g) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions.

(h) The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control.

(i) All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system under OAR 340-230-0340(14).

(j) When more than one continuous emission monitoring system is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator must report the results as required for each continuous emission monitoring system.

(k) Submit to the Department for approval, the site-specific monitoring plan required by OAR 340-230-0340(13)(m) and (14), including the site-specific performance evaluation test plan for the continuous emission monitoring system required by OAR 340-230-0340(14)(e). The owner or operator must maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Department. If the site-specific monitoring plan is revised and approved, the owner or operator must keep previous (i.e.,

superseded) versions of the plan on record to be made available for inspection, upon request, by the Department, for a period of 5 years after each revision to the plan.
(l) Submit information concerning all out-of-control periods for each continuous emission monitoring system, including start and end dates and hours and descriptions of corrective actions taken, in the annual or semiannual report required in sections (3) or (4) of this rule.
(10) Additional recordkeeping and reporting requirements for affected facilities with continuous automated sampling systems for dioxin/furan or mercury monitoring. In addition to complying with the requirements specified in sections (1) through (8) of this rule, the owner or operator of an affected facility who elects to install a continuous automated sampling system for dioxin/furan or mercury, as specified in OAR 340-230-0340(16), must maintain the records in subsections (10)(a) through (j) of this rule and report the information in subsections (10)(k) and (l) of this rule, relevant to the continuous automated sampling system:
(a) All required 24-hour integrated mercury concentration or 2-week integrated dioxin/furan concentration data (including any data obtained during unavoidable system breakdowns and out-of-control periods);
(b) The date and time identifying each period during which the continuous automated sampling system was inoperative;
(c) The date and time identifying each period during which the continuous automated sampling system was out of control, as defined in OAR 340-230-0340(16)(d);
(d) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;
(e) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
(f) The nature and cause of any malfunction (if known);
(g) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;
(h) The nature of the repairs or adjustments to the continuous automated sampling system that was inoperative or out of control;
(i) All procedures that are part of a quality control program developed and implemented for the continuous automated sampling system under OAR 340-230-0340(16);
(j) When more than one continuous automated sampling system is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator must report the results as required for each system.
(k) Submit to the Department for approval, the site-specific monitoring plan required by OAR 340-230-0340(15)(k) and (16) including the site-specific performance evaluation test plan for the continuous emission monitoring system required by OAR 340-230-0340(16)(e). The owner or operator must maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Department. If the site-specific monitoring plan is revised and approved, the owner or operator must keep previous (i.e., superseded) versions of the plan on record to be made available for inspection, upon request, by the Department, for a period of 5 years after each revision to the plan.

(l) Submit information concerning all out-of-control periods for each continuous automated sampling system, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual reports required in sections (3) or (4) of this rule.
(11~~8~~) For affected facilities installing additional controls, the owner or operator must submit to the Department semi-annual progress reports on July 30 for the first six months of each calendar year and February 1 for the second six months of each calendar year..
(12~~9~~) The owner or operator of an affected facility subject to OAR 340-230-0300 through 340-230-0350 must maintain records of and submit the following information with any Notice of Construction required by OAR 340-210-0200 through 340-210-0220 or Notice of Approval required by OAR 340-218-0190:
(a) Intent to construct;
(b) Planned initial startup date;
(c) The types of fuels that the owner or operated plans to combust in the municipal waste combustor; and
(d) The municipal waste combustor unit capacity~~, municipal waste combustor plant capacity,~~ and supporting capacity calculations prepared in accordance with OAR 340-230-0340(10).
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 4-2003, f. & cert. ef. 2-06-03DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-1000; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0359
Compliance Schedule
(1) Compliance with the revised April 28, 2009 emission limits in OAR 340-230-0310 is required as expeditiously as practicable, but not later than April 28, 2009, except as provided in section (2) of the rule.
(2) The owner or operator of an affected facility who is planning an extensive emission control system upgrade may petition the Administrator for a longer compliance schedule and must demonstrate to the satisfaction of the Administrator the need for additional time. If approved, the schedule may exceed the schedule in section (1) of this rule, but cannot exceed May 10, 2011.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 238

NEW SOURCE PERFORMANCE STANDARDS

340-238-0040
Definitions

The definitions in OAR 340-200-0020 and this rule apply to this division. If the same term is defined in this rule and OAR 340-200-0020, the definition in this rule applies to this division.

(1) "Administrator" means the Administrator of the EPA or authorized representative.

(2) "Alternative method" means any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but that has been demonstrated to the Department's satisfaction to, in specific cases, produce results adequate for determination of compliance.

(3) "Capital expenditures" means an expenditure for a physical or operational change to an existing facility that exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in **Internal Revenue Service (IRS) Publication 534** and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

(4) "CFR" means Code of Federal Regulations and, unless otherwise expressly identified, refers to the July 1, 2006~~8~~ edition.

(5) "Closed municipal solid waste landfill" (closed landfill) means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under 40 CFR 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A landfill is considered closed after meeting the criteria of 40 CFR 258.60.

(6) "Commenced", with respect to the definition of "new source" in section 111(a)(2) of the federal Clean Air Act, means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

(7) "Construction" means fabrication, erection, or installation of a facility.

(8) "Department" means the Department of Environmental Quality or, in the case of Lane County, the Lane Regional Air Protection Agency~~Pollution Authority~~.

(9) "Environmental Protection Agency" or "EPA" means the United States Environmental Protection Agency.

(10) "Existing municipal solid waste landfill" (existing landfill) means a municipal solid waste landfill that began construction, reconstruction or modification before 5/30/91 and has accepted waste at any time since 11/08/87 or has additional design capacity available for future waste deposition.

(11) "Equivalent method" means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Department's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

(12) "Existing facility", with reference to a stationary source, means any apparatus of the type for which a standard is promulgated in 40 CFR Part 60, and the construction or modification of which commenced before the date of proposal by EPA of that standard; or any apparatus that could be altered in such a way as to be of that type.

(13) "Facility" means all or part of any public or private building, structure, installation, equipment, vehicle or vessel, including, but not limited to, ships.
(14) "Fixed capital cost" means the capital needed to provide all the depreciable components.
(15) "Large municipal solid waste landfill" (large landfill) means a municipal solid waste landfill with a design capacity greater than or equal to 2.5 million megagrams or 2.5 million cubic meters.
(16) "Modification:"
(a) except as provided in subsection (b) of this section, means any physical change in, or change in the method of operation of, an existing facility that increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or that results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted;
(b) As used in OAR 340-238-0100 means an action that results in an increase in the design capacity of a landfill.
(17) "Municipal solid waste landfill" (landfill) means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A municipal solid waste landfill may also receive other types of RCRA Subtitle D wastes such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a municipal solid waste landfill may be separated by access roads and may be publicly or privately owned. A municipal solid waste landfill may be a new municipal solid waste landfill, an existing municipal solid waste landfill, or a lateral expansion (modification).
(18) "New municipal solid waste landfill" (new landfill) means a municipal solid waste landfill that began construction, reconstruction or modification or began accepting waste on or after 5/30/91.
(19) "Particulate matter" means any finely divided solid or liquid material, other than uncombined water, as measured by an applicable reference method, or an equivalent or alternative method.
(20) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
(a) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility; and
(b) It is technologically and economically feasible to meet the applicable standards set forth in 40 CFR Part 60.
(21) "Reference method" means any method of sampling and analyzing for an air pollutant as specified in 40 CFR Part 60 .
(22) "Small municipal solid waste landfill" (small landfill) means a municipal solid waste landfill with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters.
(23) "Standard" means a standard of performance proposed or promulgated under 40 CFR Part 60.
(24) "State Plan" means a plan developed for the control of a designated pollutant provided under 40 CFR Part 60.
(25) "Stationary source" means any building, structure, facility, or installation that emits or may emit any air pollutant subject to regulation under the federal Clean Air Act.
(26) "Volatile organic compounds" or "VOC" means any organic compounds that participate in atmospheric photochemical reactions; or that are measured by a reference method, an equivalent method, an alternative method, or that are determined by procedures specified under any applicable rule.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83;

DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0510; DEQ 22-2000, f. & cert. ef. 12-18-00; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 13-2006, f. & cert. ef. 12-22-06

~~340-238-0050~~
~~**General Provisions**~~
~~(1) Except as provided in section (2) of this rule, **40 CFR Part 60, Subpart A** is by this reference adopted and incorporated herein.~~
~~(2) Where "Administrator" or "EPA" appears in **40 CFR Part 60, Subpart A**, "Department" is substituted, except in any section of **40 CFR Part 60** for which a federal rule or delegation specifically indicates that authority must not be delegated to the state.~~
~~[Publications: Publications referenced are available from the agency.]~~
~~Stat. Auth.: ORS 468.020~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0530; DEQ 22-2000, f. & cert. ef. 12-18-00; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2006, f. & cert. ef. 3-14-06~~

340-238-0060
Federal Regulations Adopted by Reference
(1) Except as provided in section (2) of this rule, **40 CFR Part 60 Subparts** A, **D through XX, BBB** through ~~NNN, PPP through WWW,~~ **AAAA, CCCC,** ~~and~~ **EEEE,** IIII, and KKKK are by this reference adopted and incorporated herein, and **40 CFR Part 60 Subpart OOO** is by this reference adopted and incorporated herein for major sources only.
(2) Where "Administrator" or "EPA" appears in 40 CFR Part 60, "Department" is substituted, except in any section of 40 CFR Part 60 for which a federal rule or delegation specifically indicates that authority must not be delegated to the state.
(3) **40 CFR Part 60** Subparts adopted by this rule are titled as follows:
(a) Subpart A -- General Provisions;
(b~~a~~) Subpart D -- Fossil-fuel-fired steam generators for which construction is commenced after August 17, 1971;
(c~~b~~) Subpart Da -- Electric utility steam generating units for which construction is commenced after September 18, 1978;
(d~~c~~) Subpart Db -- Industrial-commercial-institutional steam generating units;
(e~~d~~) Subpart Dc -- Small industrial-commercial-institutional steam generating units;
(f~~e~~) Subpart E -- Incinerators;

(gf) Subpart Ea -- Municipal waste combustors for which construction is commenced after December 20, 1989 and on or before September 20, 1994;
(hg) Subpart Eb -- Municipal waste combustors for which construction is commenced after September 20, 1994;
(ih) Subpart Ec -- Hospital/Medical/Infectious waste incinerators that commenced construction after June 20, 1996, or for which modification is commenced after March 16, 1998;
(ji) Subpart F -- Portland cement plants;
(kj) Subpart G -- Nitric acid plants;
(lk) Subpart H -- Sulfuric acid plants;
(ml) Subpart I -- Hot mix asphalt facilities;
(nm) Subpart J -- Petroleum refineries;
(on) Subpart K -- Storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after June 11, 1973, and before May 19, 1978;
(po) Subpart Ka -- Storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after May 18, 1978, and before July 23, 1984;
(qp) Subpart Kb -- Volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984;
(rq) Subpart L -- Secondary lead smelters;
(sr) Subpart M -- Secondary brass and bronze production plants;
(ts) Subpart N -- Primary emissions from basic oxygen process furnaces for which construction is commenced after June 11, 1973;
(ut) Subpart Na -- Secondary emissions from basic oxygen process steelmaking facilities for which construction is commenced after January 20, 1983;
(vu) Subpart O -- Sewage treatment plants;
(wv) Subpart P -- Primary copper smelters;
(xw) Subpart Q -- Primary Zinc smelters;
(yx) Subpart R -- Primary lead smelters;
(zy) Subpart S -- Primary aluminum reduction plants;
(aaz) Subpart T -- Phosphate fertilizer industry: wet-process phosphoric acid plants;
(bbaa) Subpart U -- Phosphate fertilizer industry: superphosphoric acid plants;
(ccbb) Subpart V -- Phosphate fertilizer industry: diammonium phosphate plants;
(ddcc) Subpart W -- Phosphate fertilizer industry: triple superphosphate plants;
(eedd) Subpart X -- Phosphate fertilizer industry: granular triple superphosphate storage facilities;
(ffee) Subpart Y -- Coal preparation plants;
(ggff) Subpart Z -- Ferroalloy production facilities;
(hhgg) Subpart AA -- Steel plants: electric arc furnaces constructed after October 21, 1974 and on or before August 17, 1983;
(iihh) Subpart AAa -- Steel plants: electric arc furnaces and argon-oxygen decarburization vessels constructed after august 7, 1983;
(jjii) Subpart BB -- Kraft pulp mills;
(kkjj) Subpart CC -- Glass manufacturing plants;
(llkk) Subpart DD -- Grain elevators.
(mmll) Subpart EE -- Surface coating of metal furniture;
(nnmm) Subpart GG -- Stationary gas turbines;
(oonn) Subpart HH -- Lime manufacturing plants;

(ppoo) Subpart KK -- Lead-acid battery manufacturing plants;
(qqpp) Subpart LL -- Metallic mineral processing plants;
(rrqq) Subpart MM -- Automobile and light-duty truck surface coating operations;
(ssrr) Subpart NN -- Phosphate rock plants;
(ttss) Subpart PP -- Ammonium sulfate manufacture;
(uutt) Subpart QQ -- Graphic arts industry: publication rotogravure printing;
(vvuu) Subpart RR -- pressure sensitive tape and label surface coating operations;
(wwvv) Subpart SS -- Industrial surface coating: large appliances;
(xxww) Subpart TT -- Metal coil surface coating;
(yyxx) Subpart UU -- Asphalt processing and asphalt roofing manufacture;
(zzyy) Subpart VV -- Equipment leaks of VOC in the synthetic organic chemicals manufacturing industry;
(aaa) Suppart VVa – Equipment leaks of VOC in the synthetic organic chemicals manufacturing industry;
(bbbzz) Subpart WW -- Beverage can surface coating industry;
(cccaaa) Subpart XX -- Bulk gasoline terminals;
(dddbbb) Subpart BBB -- Rubber tire manufacturing industry;
(eeeccc) Subpart DDD -- Volatile organic compound (VOC) emissions for the polymer manufacture industry;
(fffddd) Subpart FFF -- Flexible vinyl and urethane coating and printing;
(gggeee) Subpart GGG -- eEquipment leaks of VOC in petroleum refineries;
(hhh) Subpart GGGa -- Equipment leaks of VOC in petroleum refineries;
(iiifff) Subpart HHH -- Synthetic fiber production facilities;
(jjjggg) Subpart III -- Volatile organic compound (VOC) emissions from the synthetic organic chemical manufacturing industry (SOCMI) air oxidation unit processes;
(kkkhhh) Subpart JJJ -- Petroleum dry cleaners;
(llliii) Subpart KKK -- Equipment leaks of VOC from onshore natural gas processing plants;
(mmmjjj) ubpart LLL -- Onshore natural gas processing; SO2 emissions;
(nnnkkk) Subpart NNN -- Volatile organic compound (VOC) emissions from synthetic organic chemical manufacturing industry (SOCMI) distillation operations;
(ooolll) Subpart OOO -- Nonmetallic mineral processing plants (adopted by reference for major sources only);
(pppmmm) Subpart PPP -- Wool fiberglass insulation manufacturing plants;
(qqqnnn) Subpart QQQ -- VOC emissions from petroleum refinery wastewater systems;
(rrrooo) Subpart RRR -- Volatile organic compound emissions from synthetic organic chemical manufacturing industry (SOCMI) reactor processes;
(ssspppp) Subpart SSS -- Magnetic tape coating facilities;
(tttqqq) Subpart TTT -- Industrial surface coating: surface coating of plastic parts for business machines;
(uuurrr) Subpart UUU -- Calciners and dryers in mineral industries;
(vvvsss) Subpart VVV -- Polymeric coating of supporting substrates facilities;
(wwwttt) Subpart WWW -- Municipal solid waste landfills, as clarified by OAR 340-238-0100;
(xxxuuu) Subpart AAAA -- Small municipal waste combustion units;
(yyyvvv) Subpart CCCC -- Commercial and industrial solid waste incineration units;
(zzzwww) Subpart EEEE -- Other solid waste incineration units;
(aaaa) Subpart IIII -- Stationary compression ignition combustion engines;

(bbbb) Subpart JJJJ – Stationary spark ignition internal combustion engines;
(cccc) Subpart KKKK -- Stationary combustion turbines.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; sections (1) thru (12) of this rule renumbered to 340-025-0550 thru 340-025-0605; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0535; DEQ 22-2000, f. & cert. ef. 12-18-00; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 13-2006, f. & cert. ef. 12-22-06

340-238-0090
Delegation
(1) The Lane Regional Air Protection Agency~~Pollution Authority~~ (LRAPA) is authorized to implement and enforce, within its boundaries, the provisions of this division.
(2) The Commission may authorize LRAPA to implement and enforce its own provisions upon a finding that such provisions are at least as stringent as a corresponding provision in this division. LRAPA may implement and enforce provisions authorized by the Commission in place of any or all of this division upon receipt of delegation from EPA. Delegation may be withdrawn for cause by the Commission.
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0520

DIVISION 244

OREGON FEDERAL HAZARDOUS AIR POLLUTANT PROGRAM

General Provisions for Stationary Sources

340-244-0020
Delegation of Authority
(1) The Lane Regional Air Protection Agency~~Pollution Authority~~ (LRAPA) is authorized to implement and enforce, within its boundaries, this Division.
(2) The Commission may authorize LRAPA to implement and enforce its own provisions upon a finding that such provisions are at least as stringent as a corresponding provision in this Division. LRAPA may implement and enforce provisions authorized by the Commission in place of any or all of this Division upon receipt of delegation from EPA or approval of such provisions under Section 112(1) of the Federal Clean Air Act. Authorization provided under this section may be withdrawn for cause by the Commission.

Stat. Auth.: ORS 468 & ORS 468A
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0110

340-244-0030
Definitions
The definitions in OAR 340-200-0020, 340-218-0030 and this rule apply to this division. If the same term is defined in this rule and OAR 340-200-0020 or 340-218-0030, the definition in this rule applies to this division.
(1) "Accidental Release" means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.
(2) "Act" and "FCAA" mean the Federal Clean Air Act, Public Law 88-206 as last amended by Public Law 101-549.
~~(3) "Actual Emissions" means the mass emissions of a pollutant from an emissions source during a specified time period.~~
~~(a) Actual emissions shall equal the average rate at which the source actually emitted the pollutant and which is representative of normal source operation. Actual emissions shall be directly measured with a continuous monitoring system or calculated using a material balance or verified emission factor in combination with the source's actual operating hours, production rates and types of materials processed, stored, or combusted during the specified time period;~~
~~(b) For any source which had not yet begun normal operation in the specified time period, actual emissions shall equal the potential to emit of the source;~~
~~(c) For purposes of OAR 340-244-0100 through 340-244-0180 actual emissions shall equal the actual rate of emissions of a pollutant, but does not include excess emissions from a malfunction, or startups and shutdowns associated with a malfunction.~~
(3) "Annual throughput" means the amount of gasoline transferred into a gasoline dispensing facility during 12 consecutive months.
(4) "Area Source" means any stationary source which has the potential to emit hazardous air pollutants but is not a major source of hazardous air pollutants.
~~(5) "Artificially or Substantially Greater Emissions" means abnormally high emissions such as could be caused by equipment malfunctions, accidents, unusually high production or operating rates compared to historical rates, or other unusual circumstances.~~
~~(6) "Base Year Emissions" for purposes of Early Reductions only (OAR 340-244-0100), means actual emissions in the calendar year 1987 or later.~~
(5~~7~~) "CFR" means Code of Federal Regulations and, unless otherwise expressly identified, refers to the July 1, 200~~86~~ edition.
(6~~8~~) "Commission" means the Oregon Environmental Quality Commission.
(7~~9~~) "Construct a major ~~S~~source" means to fabricate, erect, or install at any greenfield site a stationary source or group of stationary sources which is located within a contiguous area and under common control and which emits or has the potential to emit 10 tons per year oaf any HAPs or 25 tons per year of any combination of HAP, or to fabricate, erect, or install at any developed site a new process or production unit which in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, unless the process or production unit satisfies criteria in paragraphs (a) through (f) of this definition~~paragraph~~:

(a) All HAP emitted by the process or production unit that would otherwise be controlled under the requirements of ~~this~~ **40 CFR Part 63, sSubpart B** will be controlled by emission control equipment which was previously installed at the same site as the process or production unit;
(b)~~(A)~~ The Department~~permitting authority~~ has determined within a period of 5 years prior to the fabrication, erection, or installation of the process or production unit that the existing emission control equipment represented the best available control technology (BACT), lowest achievable emission rate (LAER) under **40 CFR part 51 or 52**, toxics-best available control technology (T-BACT), or MACT ~~a~~based on State air toxic rules for the category of pollutants which includes those HAP to be emitted by the process or production unit; or
~~(B) T~~the Department~~permitting authority~~ determines that the control of HAP emissions provided by the existing equipment will be equivalent to that level of control currently achieved by other well-controlled similar sources (i.e., equivalent to the level of control that would be provided by a current BACT, LAER, T-BACT, or State air toxic rule MACT determination).
(c) The Department~~permitting authority~~ determines that the percent control efficiency for emission of HAP from all sources to be controlled by the existing control equipment will be equivalent to the percent control efficiency provided by the control equipment prior to the inclusion of the new process or production unit;
(d) The Department~~permitting authority~~ has provided notice and an opportunity for public comment concerning its determination that criteria in paragraphs (a), (b), and (c) of this definition apply and concerning the continued adequacy of any prior LAER, BACT, T-BACT, or State air toxic rule MACT determination;
(e) If any commenter has asserted that a prior LAER, BACT, T-BACT, or State air toxic rule MACT determination is no longer adequate, the Department~~permitting authority~~ has determined that the level of control required by that prior determination remains adequate; and
(f) Any emission limitations, work practice requirements, or other terms and conditions upon which the above determinations by the Department~~permitting authority~~ are predicated will be construed by the Department~~permitting authority~~ as applicable requirements under section 504(a) and either have been incorporated into any existing ~~t~~Title V permit for the affected facility or will be incorporated into such permit upon issuance.
(~~8~~10) "Department" means the Department of Environmental Quality.
(~~9~~11) "Director" means the Director of the Department or Regional Agency~~authority~~, and authorized deputies or officers.
~~(12) "Early Reductions Unit" means a single emission point or group of emissions points defined as a unit for purposes of an alternative emissions limit issued under OAR 340-244-0100 through 340-244-0180.~~
(10) "Dual-point vapor balance system" means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.
(11~~3~~) "Emission" means a release into the atmosphere of any regulated pollutant or air contaminant.
(12~~4~~) "Emissions Limitation" and "Emissions Standard" mean a requirement adopted by the Department or ~~r~~Regional Agency~~authority~~, or proposed or promulgated by the Administrator of the EPA, which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.

(13~~15~~) "Emissions Unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant.

(a) A part of a stationary source is any machine, equipment, raw material, product, or by-product that produces or emits air pollutants. An activity is any process, operation, action, or reaction (e.g., chemical) at a stationary source that emits air pollutants. Except as described in ~~subsection~~paragraph (d) of this definition~~section~~, parts and activities may be grouped for purposes of defining an emissions unit provided the following conditions are met:

(A) The group used to define the emissions unit may not include discrete parts or activities to which a distinct emissions standard applies or for which different compliance demonstration requirements apply; and

(B) The emissions from the emissions unit are quantifiable.

(b) Emissions units may be defined on a pollutant by pollutant basis where applicable;

(c) The term "emissions unit" is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA;

(d) Parts and activities ~~shall~~ cannot be grouped for ~~purposes of~~ determining emissions increases from an emissions unit under OAR 340-2244-0050~~,~~ through 340-2244-0070, or OAR 340 division 210~~340-218-0190~~, or for ~~purposes of~~ determining the applicability of a New Source Performance Standard (NSPS).

(14~~16~~) "EPA" means the Administrator of the United States Environmental Protection Agency or the Administrator's designee.

~~(17) "EPA Conditional Method" means any method of sampling and analyzing for air pollutants which has been validated by the EPA but which has not been published as an EPA reference method.~~

~~(18) "EPA Reference Method" means any method of sampling and analyzing for an air pollutant as described in 40 CFR Part 60, 61, or 63.~~

(15~~19~~) "Equipment leaks" means leaks from pumps, compressors, pressure relief devices, sampling connection systems, open ended valves or lines, valves, connectors, agitators, accumulator vessels, and instrumentation systems in hazardous air pollutant service.

(16~~20~~) "Existing Source" means any source, the construction of which commenced prior to proposal of an applicable standard under sections 112 or 129 of the FCAA.

(17~~21~~) "Facility" means all or part of any public or private building, structure, installation, equipment, or vehicle or vessel, including but not limited to ships.

(18~~22~~) "Fugitive Emissions" means emissions of any air contaminant that escape to the atmosphere from any point or area that is not identifiable as a stack, vent, duct or equivalent opening.

~~(23) "Generally Available Control Technology (GACT)" means an alternative emission standard promulgated by EPA for non-major sources of hazardous air pollutants which provides for the use of control technology or management practices which are generally available.~~

(19) "Gasoline cargo tank" means a delivery tank truck or railcar which is loading gasoline or which has loaded gasoline on the immediately previous load.

(20) "Gasoline dispensing facility (GDF)" means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle.

(21~~24~~) "Hazardous Air Pollutant" (HAP) means an air pollutant listed by the EPA pursuant to section 112(b) of the FCAA or determined by the Commission to cause, or reasonably be anticipated to cause, adverse effects to human health or the environment.

~~(25) "High-Risk Pollutant" means any air pollutant listed in Table 2 of OAR 340-244-0140 for which exposure to small quantities may cause a high risk of adverse public health effects.~~

(2226) "Major Source" means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The EPA may establish a lesser quantity, or in the case of radionuclides different criteria, for a major source on the basis of the potency of the air pollutant, persistence, potential for bioaccumulation, other characteristics of the air pollutant, or other relevant factors.

(2327) "Maximum Achievable Control Technology (MACT)" means an emission standard applicable to major sources of hazardous air pollutants that requires the maximum degree of reduction in emissions deemed achievable for either new or existing sources.

(24) "Monthly throughput" means the total volume of gasoline that is loaded into all gasoline storage tanks during a month, as calculated on a rolling 30-day average.

(2528) "New Source" means a stationary source, the construction of which is commenced after proposal of a federal MACT or January 3, 1993 of this Division, whichever is earlier.

~~(29) "Not Feasible to Prescribe or Enforce a Numerical Emission Limit" means a situation in which the Department determines that a pollutant or stream of pollutants listed in OAR 340-244-0040 cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any state or federal law or regulation; or the application of measurement technology to a particular source is not practicable due to technological or economic limitations.~~

(2630) "Person" means the United States Government and agencies thereof, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity whatsoever.

(2731) "Potential to Emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the EPA. This section does not alter or affect the use of this section for any other purposes under the Act, or the term "capacity factor" as used in Title IV of the Act or the regulations promulgated thereunder. Secondary emissions shall not be considered in determining the potential to emit of a source.

(2832) "Reconstruct a Major Source" means the replacement of components at an existing process or production unit that in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, whenever: the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable process or production unit; and; it is technically and economically feasible for the reconstructed major source to meet the applicable maximum achievable control technology emission limitation for new sources established under **40 CFR Part 63 Subpart B**.

(2933) "Regional AgencyAuthority" means Lane Regional Air Protection AgencyPollution Authority.

(3034) "Regulated Air Pollutant" as used in this Division means:

(a) Any pollutant listed under OAR 340-200-0400 or 340-244-0230; or

(b) Any pollutant that is subject to a standard promulgated pursuant to Section 129 of the Act.

(3135) "Secondary Emissions" means emissions from new or existing sources which occur as a result of the construction and/or operation of a source or modification, but do not come from the source itself. Secondary emissions shall be specific, well defined, and quantifiable, and impact the same general area

as the source associated with the secondary emissions. Secondary emissions may include but are not limited to:
(a) Emissions from ships and trains coming to or from a facility;
(b) Emissions from offsite support facilities which would be constructed or would otherwise increase emissions as a result of the construction of a source or modification.
(3236) "Section 111" means that section of the FCAA that includes standards of performance for new stationary sources.
(3337) "Section 112(b)" means that subsection of the FCAA that includes the list of hazardous air pollutants to be regulated.
(3438) "Section 112(d)" means that subsection of the FCAA that directs the EPA to establish emission standards for sources of hazardous air pollutants. This section also defines the criteria to be used by EPA when establishing the emission standards.
(3539) "Section 112(e)" means that subsection of the FCAA that directs the EPA to establish and promulgate emissions standards for categories and subcategories of sources that emit hazardous air pollutants.
(3640) "Section 112(n)" means that subsection of the FCAA that includes requirements for the EPA to conduct studies on the hazards to public health prior to developing emissions standards for specified categories of hazardous air pollutant emission sources.
(3741) "Section 112(r)" means that subsection of the FCAA that includes requirements for the EPA promulgate regulations for the prevention, detection and correction of accidental releases.
(3842) "Section 129" means that section of the FCAA that requires EPA to promulgate regulations for solid waste combustion.
(3943) "Solid Waste Incineration Unit" as used in this Division shall have the same meaning as given in Section 129(g) of the FCAA.
(4044) "Stationary Source":
(a) As used in OAR 340 division 244 means any building, structure, facility, or installation which emits or may emit any regulated air pollutant;
(b) As used in OAR 340-244-0230 means any buildings, structures, equipment, installations, or substance emitting stationary activities:
(A) That belong to the same industrial group;
(B) That are located on one or more contiguous properties;
(C) That are under the control of the same person (or persons under common control); and
(D) From which an accidental release may occur.
(41) "Submerged filling" means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in OAR 340-244-0242(2) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.
(42) "Vapor balance system" means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.
(43) "Vapor-tight" means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.
[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 468.020 & 468A.025
Stats. Implemented: ORS 468A.040
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 26-1996, f. & cert. ef. 11-26-96; DEQ 20-1997, f. & cert. ef. 9-25-97; DEQ 18-1998, f. & cert. ef. 10-5-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0120; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 13-2006, f. & cert. ef. 12-22-06

Compliance Extensions for Early Reductions

340-244-0100
Applicability

The requirements of ~~OAR 340-244-0100 through 340-244-0180~~ **40 CFR Part 63, Subpart D** apply to an owner or operator of an existing source who wishes to obtain a compliance extension and an alternative emission limit from a standard issued under Section 112(d) of the FCAA. Any owner or operator of a facility who elects to comply with a compliance extension and alternative emission limit issued under this section must complete a permit application as prescribed in **40 CFR 63.77**~~OAR 340-244-0110~~.

Stat. Auth.: ORS 468.020 & ORS 468A.310
Stats. Implemented: ORS 468A.310
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0300

~~**340-244-0110**~~
~~**Permit Application Procedures for Early Reductions**~~

~~(1) To apply for an alternative emission limitation under OAR 340-244-0100, an owner or operator of the source shall file a permit application with the Department.~~
~~(2) Except as provided in (3) of this rule, the permit application shall contain the information required in OAR 340-244-0140 and shall comply with additional permit application procedures as prescribed in OAR 340 division 218.~~
~~(3) Permit applications for Early Reductions shall be submitted no later than 120 days after proposal of an otherwise applicable standard issued under Section 112(d) of the Act provided that the reduction was achieved prior to the date of proposal of the standard.~~
~~(4) The post reduction emissions information required under OAR 340-244-0140(5)(b), OAR 340-244-0140(5)(c), and OAR 340-244-0140(5)(e) shall not be filed as part of the source's initial permit application but shall be filed later as a supplement to the application. This supplementary information shall be filed no earlier than one year after the date early reductions had to be achieved according to OAR 340-244-0120(1)(b) and no later than 13 months after such date.~~
~~(5) If a source test is the supporting basis for establishing post-reduction emissions for one or more emission points in the Early Reductions Unit, the test results shall be submitted by the applicable deadline for submittal of a permit application as specified in section (3) of this rule.~~
~~(6) The Department shall review and decide on permit applications for early reductions according to the provisions of OAR 340 division 218.~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~

~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0310~~

~~**340-244-0120**~~
~~**General Provisions for Compliance Extensions**~~
~~(1) The Department will, by permit issued in accordance with OAR 340 division 218, allow an existing source to meet an alternative emission limitation for an Early Reductions Unit in lieu of an emission limitation promulgated under Section 112(d) of the FCAA for a period of six years from the compliance date of the otherwise applicable standard, provided the owner or operator demonstrates:~~
~~(a) According to the requirements of OAR 340-244-0140 that the Early Reductions Unit has achieved a reduction of at least 90 percent (95 percent or more in the case of HAP that are particulate) in emissions of:~~
~~(A) Total HAP from the Early Reductions Unit; or~~
~~(B) Total HAP from the Early Reductions Unit as adjusted for high risk pollutant weighing factors (**Table 2**), if applicable.~~
~~(b) That such reduction was achieved before the otherwise applicable standard issued under Section 112(d) of the FCAA was first proposed.~~
~~(2) A source granted an alternative emission limitation must comply with an applicable standard issued under Section 112(d) of the FCAA immediately upon expiration of the six-year compliance extension period specified in section (1) of this rule.~~
~~(3) For each facility issued a permit under section (1) of this rule, there must be established as part of the permit an enforceable alternative emission limitation for HAP for each Early Reductions Unit reflecting the reduction that qualified the Early Reductions Unit for the alternative emission limitation.~~
~~(4) Any source that has received an alternative emissions limit from EPA, either pursuant to **40 CFR 63.75 Enforceable Commitments** dated **December 29, 1992**, or as a Title V specialty permit, must have the alternative emission limit(s) incorporated as an applicable requirement in its operating permit pursuant to OAR 340-218-0150 upon permit issuance or renewal.~~
~~(5) If a source fails to submit a timely and complete application according to OAR 340-218-0040, or does not adequately demonstrate the required reductions in emissions pursuant to OAR 340-244-0140, the Department will not approve the source's application for a compliance extension and alternative emission limit, and the source must comply with any applicable emission standard established pursuant to 112(d) of the FCAA by the compliance date prescribed in the applicable standard.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0320; DEQ 2-2005, f. & cert. ef. 2-10-05~~

~~**340-244-0130**~~
~~**Determination of Early Reductions Unit**~~
~~An alternative emission limitation may be granted under this section to an existing Early Reductions Unit as defined below provided that a 90 percent (or 95 percent in the case of particulate emissions) reduction in base year HAP emissions is achieved. For the purposes of compliance extensions for early reductions only, an "Early Reductions Unit" includes any of the following:~~
~~(1) A building structure, facility, or installation identified as a source under any proposed or promulgated standard issued under 112(d) of the FCAA;~~

~~(2) All portions of an entire contiguous plant site under common ownership or control that emit hazardous air pollutants;~~
~~(3) Any portion of an entire contiguous plant site under common ownership or control that emits HAP and can be identified as a facility, building, structure, or installation for the purposes of establishing standards under Section 112(d) of the FCAA; or~~
~~(4) Any individual emission point or combination of emission points within a contiguous plant site under common control, provided that the base year emissions of HAP from such point or aggregation of points is at least ten tons per year where the total base year emissions of HAP from the entire contiguous plant site is greater than 25 tons, or at least five tons per year where the total base year emissions of HAP from the entire contiguous plant site is equal to or less than 25 tons.~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0330~~

~~340-244-0140~~
~~Demonstration of Early Reduction~~
~~(1) For purposes of determining emissions for Early Reductions, "Actual emissions" means the actual rate of emissions of a pollutant, but does not include excess emissions from a malfunction, or startups and shutdowns associated with a malfunction. Actual emissions shall be calculated using the source's actual operating rates, and types of materials processed, stored, or combusted during the selected time period.~~
~~(2) An owner or operator applying for an alternative emission limitation shall demonstrate achieving early reductions as required by OAR 340-244-0120(1) by following the procedures in this rule.~~
~~(3) An owner or operator shall establish the Early Reductions Unit for the purposes of a compliance extension and alternative emission limit by documenting the following information:~~
~~(a) A description of the Early Reductions Unit including a site plan of the entire contiguous plant site under common control that contains the Early Reductions Unit, markings on the site plan locating the parts of the site that constitute the Early Reductions Unit, and the activity at the Early Reductions Unit that causes HAP emissions;~~
~~(b) A complete list of all emission points of HAP in the Early Reductions Unit, including identification numbers and short descriptive titles; and~~
~~(c) A statement showing that the Early Reductions Unit conforms to one of the allowable definition options from OAR 340-244-0130. For an Early Reductions Unit conforming to the option in OAR 340-244-0130(4), the total base year emissions from the Early Reductions Unit, as determined pursuant to this section, shall be demonstrated to be at least:~~
~~(A) Five tons per year, for cases in which total HAP emissions from the entire contiguous plant site under common control are 25 tons per year or less as required under section (12) of this rule; or~~
~~(B) Ten tons per year in all other cases.~~
~~(4) An owner or operator shall establish base year emissions for the Early Reductions Unit by providing the following information:~~
~~(a) The base year chosen, where the base year shall be 1987 or later;~~
~~(b) The best available data accounting for actual emissions, during the base year, of all HAP from each emission point listed in the Early Reductions Unit in subsection (3)(b) of this rule;~~
~~(c) The supporting basis for each emission number provided in subsection (4)(b) of this rule including:~~

~~(A) For test results submitted as the supporting basis, a description of the test protocol followed, any problems encountered during the testing, a discussion of the validity of the method for measuring the subject emissions, and evidence that the testing was conducted in accordance with the Department's **Source Sampling Manual** or **Continuous Monitoring Manual**; and~~

~~(B) For calculations based on emission factors, material balance, or engineering principles and submitted as the supporting basis, a step-by-step description of the calculations, including assumptions used and their bases, and a brief rationale for the validity of the calculation method used; and~~

~~(d) Evidence that the emissions provided under subsection (4)(b) of this rule are not artificially or substantially greater than emissions in other years prior to implementation of emission reduction measures.~~

~~(5) An owner or operator shall establish post reduction emissions by providing the following information:~~

~~(a) For the emission points listed in the Early Reductions Unit in subsection (3)(b) of this rule a description of all control measures employed to achieve the emission reduction required by OAR 340-244-0120(1)(a);~~

~~(b) The best available data accounting for actual emissions, during the year following the applicable emission reduction deadlines as specified in OAR 340-244-0120(1)(b), of all HAP from each emission point in the Early Reductions Unit listed in subsection (3)(b) of this rule;~~

~~(c) The supporting basis for each emission number provided in subsection (5)(b) of this rule including:~~

~~(A) For test results submitted as the supporting basis, a description of the test protocol followed, any problems encountered during the testing, a discussion of the validity of the method for measuring the subject emissions, and evidence that the testing was conducted in accordance with the Department's **Source Sampling Manual** or **Continuous Monitoring Manual**; and~~

~~(B) For calculations based on emission factors, material balance, or engineering principles and submitted as the supporting basis, a step-by-step description of the calculations, including assumptions used and their bases, and a brief rationale for the validity of the calculation method used.~~

~~(d) Evidence that there was no increase in radionuclide emissions from the source.~~

~~(6)(a) An owner or operator shall demonstrate that both total base year emissions and total base year emissions adjusted for high risk pollutants (**Table 2**), as applicable, have been reduced by at least 90 percent for gaseous HAP emitted and 95 percent for particulate HAP emitted by determining the following for gaseous and particulate emissions separately:~~

~~(A) Total base year emissions, calculated by summing all base year emission data from subsection (4)(b) of this rule;~~

~~(B) Total post reduction emissions, calculated by summing all post reduction emission data from subsection (5)(b) of this rule;~~

~~(C) Total base year emissions adjusted for high-risk pollutants, calculated by multiplying each emission number for a pollutant from subsection (4)(b) of this rule by the appropriate weighing factor for the pollutant from **Table 2** and then summing all weighted emission data; and~~

~~(D) Total post reduction emissions adjusted for high-risk pollutants, calculated by multiplying each emission number for a pollutant from subsection (5)(b) of this rule by the appropriate weighing factor for the pollutant from **Table 2** and then summing all weighted emission data;~~

~~(E) Percent reductions, calculated by dividing the difference between base year and post reduction emissions by the base year emissions. Separate demonstrations are required for total gaseous and particulate emissions, and total gaseous and particulate emissions adjusted for high-risk pollutants.~~

~~(b) If any points in the Early Reductions Unit emit both particulate and gaseous pollutants, as an alternative to the demonstration required in subsection (6)(a) of this rule, an owner or operator may demonstrate:~~

~~(A) A weighted average percent reduction for all points emitting both particulate and gaseous pollutants where the weighted average percent reduction is determined by: [Formula not included. See ED. NOTE.]~~

~~(B) The reductions required in subsection (6)(a) of this rule for all other points in each Early Reductions Unit.~~

~~(7) If lower rates or hours are used to achieve all or part of the emission reduction, any HAP emissions that occur from a compensating increase in rates or hours from the same activity elsewhere within the plant site that contains the Early Reductions Unit shall be counted in the post-reduction emissions from the Early Reductions Unit. If emission reductions are achieved by shutting down process equipment and the shutdown equipment is restarted or replaced anywhere within the plant site, any hazardous air pollutant emissions from the restarted or replacement equipment shall be counted in the post-reduction emissions for the Early Reductions Unit.~~

~~(8) The best available data representing actual emissions for the purpose of establishing base year or post-reduction emissions under this rule shall consist of documented results from source tests using an EPA Reference Method, EPA Conditional Method, or the owner's or operator's source test method that has been validated pursuant to **Method 301** of **40 CFR Chapter I Part 63 Appendix A,** dated **June 1992**. However, if one of the following conditions exists, an owner or operator may submit, in lieu of results from source tests, calculations based on engineering principles, emission factors, or material balance data as actual emission data for establishing base year or post-reduction emissions:~~

~~(a) No applicable EPA Reference Method, EPA Conditional Method, or other source test method exists;~~

~~(b) It is not technologically or economically feasible to perform source tests;~~

~~(c) It can be demonstrated to the satisfaction of the Department that the calculations will provide emission estimates of accuracy comparable to that of any applicable source test method;~~

~~(d) For base year emission estimates only, the base year conditions no longer exist at an emission point in the Early Reductions Unit and emission data could not be produced for such an emission point, by performing source tests under currently existing conditions and converting the test results to reflect base year conditions, that is more accurate than an estimate produced by using engineering principles, emission factors, or a material balance; or~~

~~(e) The emissions from one or a set of emission points in the Early Reductions Unit are small compared to total Early Reductions Unit emissions and potential errors in establishing emissions from such points will not have a significant effect on the accuracy of total emissions established for the Early Reductions Unit.~~

~~(9) For base year or post-reduction emissions established under this rule that are not supported by source test data, the source owner or operator shall include the reason source testing was not performed.~~

~~(10) The EPA average emission factors for equipment leaks cannot be used under this subpart to establish base year emissions for equipment leak Early Reductions Units, unless the base year emission number calculated using the EPA average emission factors for equipment leaks also is used as the post-reduction emission number for equipment leaks from the Early Reductions Unit.~~

~~(11) A source owner or operator shall not establish base year or post-reduction emissions that include any emissions from the Early Reductions Unit exceeding allowable emission levels specified in any applicable law, regulation, or permit condition.~~

~~(12) For Early Reductions Units subject to paragraph (3)(c)(A) of this rule, an owner or operator shall document total base year emissions from an entire contiguous plant site under common control by providing the following information for all HAP from all emission points in the contiguous plant site under common control:~~
~~(a) A complete list of all emission points of HAP;~~
~~(b) The best available data accounting for all HAP emissions during the base year from each HAP emission point;~~
~~(c) Total base year emissions calculated by summing all base year emissions data from subsection (b) of this section.~~
~~(13) If a new pollutant is added to the list of HAP or high risk pollutants, any source emitting such pollutant will not be required to revise an early reduction demonstration pursuant to this rule if alternative emission limits have previously been specified by permit for the Early Reductions Unit as provided for in OAR 340-244-0120(1).~~
~~[ED. NOTE: Copies of the Formula referenced in this rule are available from the agency.]~~
~~[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0340~~

~~340-244-0150~~
~~Review of Base Year Emissions~~
~~(1) Pursuant to the procedures of this rule, the Department shall review and approve or disapprove base year emissions data submitted in a permit application from an applicant that wishes to participate in the early reduction program. A copy of the permit application shall also be submitted to the EPA Region 10 Office.~~
~~(2) Within 30 days of receipt of base year emission data, the Department shall advise the applicant that:~~
~~(a) The base year emission data are complete as submitted; or~~
~~(b) The base year emission data are not complete and include a list of deficiencies that must be corrected before review can proceed.~~
~~(3) Within 60 days of a determination that a base year emission data submission is complete, the Department shall evaluate the adequacy of the submission with respect to the requirements of OAR 340-244-0140(2) through (4) and either:~~
~~(a) Propose to approve the submission and publish a notice in a newspaper of general circulation in the area where the source is located or in a state publication designed to give general public notice, providing the aggregate base year emission data for the source and the rationale for the proposed approval, noting the availability of the nonconfidential information contained in the submission for public inspection in at least one location in the community in which the source is located, providing for a public hearing upon request by at least ten interested persons, and establishing a 30 day public comment period that can be extended to 60 days upon request by at least ten interested persons; or~~
~~(b) Propose to disapprove the base year emission data and give notice to the applicant of the reasons for the disapproval. An applicant may correct disapproved base year data and submit revised data for review in accordance with this subsection, except that the review of a revision shall be accomplished within 30 days.~~

~~(4) If no adverse public comments are received by the reviewing agency on proposed base year data for a source, the data shall be considered approved at the close of the public comment period and a notice of the approval shall be sent to the applicant and published by the reviewing agency by advertisement in the area affected.~~
~~(5) If adverse public comments are received and the Department agrees that corrections are needed, the Department shall give notice to the applicant of the disapproval and reasons for the disapproval. An applicant may correct disapproved base year emission data and submit revised emission data. If a revision is submitted by the applicant that, to the satisfaction of the Department, takes into account the adverse comments, the Department will publish by advertisement in the area affected a notice containing the approved base year emission data for the source and send notice of the approval to the applicant.~~
~~(6) If adverse public comments are received and the Department determines that the comments do not warrant changes to the base year emission data, the Department will publish by advertisement in the area affected a notice containing the approved base year emission data for the source and the reasons for not accepting the adverse comments. A notice of the approval also shall be sent to the applicant.~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0350~~

~~340-244-0160~~
~~Early Reduction Demonstration Evaluation~~
~~(1) The Department will evaluate an early reduction demonstration submitted by the source owner or operator in a permit application with respect to the requirements of OAR 340-244-0140.~~
~~(2) An application for a compliance extension may be denied if, in the judgement of the Department, the owner or operator has failed to demonstrate that the requirements of OAR 340-244-0140 have been met. Specific reasons for denial include, but are not limited to:~~
~~(a) The information supplied by the owner or operator is incomplete;~~
~~(b) The required 90 percent reduction (95 percent in cases where the HAP is particulate matter) has not been demonstrated;~~
~~(c) The base year or post reduction emissions are incorrect, based on methods or assumptions that are not valid, or not sufficiently reliable or well documented to determine with reasonable certainty that required reductions have been achieved; or~~
~~(d) The emission of HAP or the performance of emission control measures is unreliable so as to preclude determination that the required reductions have been achieved or will continue to be achieved during the extension period.~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0360~~

~~340-244-0170~~
~~Approval of Applications~~
~~(1) If an early reduction demonstration is approved and other requirements for a complete permit application are met, the Department shall establish by a permit issued pursuant to OAR 340 division 218, enforceable alternative emissions limitations for each Early Reductions Unit reflecting the~~

~~reduction which qualified the Early Reductions Unit for the extension. However, if it is not feasible to prescribe a numerical emissions limitation for one or more emission points in the Early Reductions Unit, the Department shall establish such other requirements, reflecting the reduction which qualified the Early Reductions Unit for an extension, in order to assure that the 90 or 95 percent reduction, as applicable, is achieved.~~

~~(2) An alternative emissions limitation or other requirement prescribed pursuant to section (1) of this rule shall be effective and enforceable immediately upon issuance of the permit for the source and shall expire exactly six years after the compliance date of an otherwise applicable standard issued pursuant to Section 112(d) of the Act.~~

~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0370~~

~~**340-244-0180**~~
~~**Rules for Special Situations**~~

~~(1) If more than one standard issued under Section 112(d) of the FCAA would be applicable to an Early Reductions Unit as defined under OAR 340-244-0130, then the date of proposal referred to in OAR 340-244-0110(3), 340-244-0120(1)(b), and 340-244-0140(5)(d), is the date the first applicable standard is proposed.~~

~~(2) Sources emitting radionuclides are not required to reduce radionuclides by 90 (95) percent. Radionuclides may not be increased from the source as a result of the early reductions demonstration.~~

~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0380~~

Emission Standards

340-244-0210
Emissions Limitation for Existing Sources

(1) Federal MACT. Existing major and area sources must comply with the applicable emissions standards for existing sources promulgated by the EPA pursuant to section 112(d), section 112(n), or section 129 of the FCAA and adopted by rule within this Division.

(2) State MACT. If the EPA fails to meet its schedule for promulgating a MACT standard for a source category or subcategory, the Department must approve HAP emissions limitations for existing major sources within that category or subcategory according to **40 CFR Part 63, Subpart B.**

(a) The owner or operator of each existing major source within that category will file permit applications in accordance with OAR 340-218-0040 and **40 CFR Part 63, Subpart B.**

(b) If, after a permit has been issued, the EPA promulgates a MACT standard applicable to a source that is more stringent than the one established pursuant to this section, the Department may revise the permit upon the next renewal to reflect the standard promulgated by the EPA. The source will be given a reasonable time to comply, but no longer than 8 years after the standard is promulgated;

(c) The Department will not establish a case-by-case State MACT:

(A) For existing solid waste incineration units where an emissions standard will be established for these units by the EPA pursuant to section 111 of the FCAA. These sources are subject to applicable emissions standards under OAR chapter 340, division 2302~~5~~; or
(B) For existing major HAP sources where an emissions standard or alternative control strategy will be established by the EPA pursuant to section 112(n) of the FCAA.
(3) Compliance schedule:
(a) The owner or operator of the source must comply with the emission limitation:
(A) Within the time frame established in the applicable Federal MACT standard, but in no case later than three years from the date of federal promulgation of the applicable MACT requirements; or
(B) Within the time frame established by the Department where a state-determined MACT has been established or a case-by-case determination has been made.
~~(b) The owner or operator of the source may apply for, and the Commission may grant, a compliance extension of up to one year if such additional period is necessary for the installation of controls;~~
(b~~e~~) Notwithstanding the requirements of this section, no existing source that has installed Best Available Control Technology or has been required to meet Lowest Achievable Emission Rate before the promulgation of a federal MACT applicable to that emissions unit is be required to comply with such MACT standard until 5 years after the date on which such installation or reduction has been achieved, as determined by the Department.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468 & 468A
Stats. Implemented: ORS 468A.310
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 7-1998, f. & cert. ef. 5-5-98; DEQ 18-1998, f. & cert. ef. 10-5-98, Renumbered from 340-032-2500; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0505; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05

340-244-0220
Federal Regulations Adopted by Reference
(1) Except as provided in sections (2) and (3) of this rule, 40 CFR Part 61, Subparts **A**, C through **F, ~~I,~~ J, L, N** through **P, V,** and **Y~~, BB and~~** through **FF** and **40 CFR Part 63, Subparts A, F** through **BBBBBB, DDDDDD through GGGGGG, and LLLLLL through TTTTTT, ~~G, H, I, J, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, MM, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, CCC, DDD, EEE, GGG, HHH, III, JJJ, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, TTT, UUU, VVV, XXX, AAAA, CCCC, DDDD, EEEE, FFFF, GGGG, HHHHI, IIII, JJJJ, KKKK, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, YYYY, ZZZZ, AAAAA, BBBBB, CCCCC, DDDDD, EEEEE, FFFFF, GGGGG, HHHHH, IIIII, JJJJJ, KKKKK, LLLLL, MMMMM, NNNNN, PPPPP, QQQQQ, RRRRR, SSSSS, and TTTTT~~** are adopted by reference and incorporated herein.
(2) Where "Administrator" or "EPA" appears in 40 CFR Part 61 or 63, "Department" is substituted, except in any section of 40 CFR Part 61 or 63, for which a federal rule or delegation specifically indicates that authority will not be delegated to the state.
(3) 40 CFR Part 63 Subpart M -- Dry Cleaning Facilities using Perchloroethylene: The exemptions in 40 CFR 63.320(d) and (e) do not apply.
(4) 40 CFR Part 61 Subparts adopted by this rule are titled as follows:
(a) Subpart A -- General Provisions;
~~(b) Subpart B -- Radon Emissions from Underground Uranium Mines;~~

(be) Subpart C -- Beryllium;
(cd) Subpart D -- Beryllium Rocket Motor Firing;
(de) Subpart E -- Mercury;
(ef) Subpart F -- Vinyl Chloride;
~~(g) Subpart I -- Radionuclide Emissions from Federal Facilities Other than Nuclear Regulatory Commission Licensee and Not Covered by Subpart H;~~
(fh) Subpart J -- Equipment Leaks (Fugitive Emission Sources) of Benzene;
(gi) Subpart L -- Benzene Emissions from Coke By-Product Recovery Plants;
(hj) Subpart N -- Inorganic Arsenic Emissions from Glass Manufacturing Plants;
(ik) Subpart O -- Inorganic Arsenic Emissions from Primary Copper Smelters;
(jl) Subpart P -- Inorganic Arsenic Emissions from Arsenic Trioxide and Metal Arsenic Facilities;
(km) Subpart V -- Equipment Leaks (Fugitive Emission Sources);
(ln) Subpart Y -- Benzene Emissions from Benzene Storage Vessels;
(mo) Subpart BB -- Benzene Emissions from Benzene Transfer Operations; and
(np) Subpart FF -- Benzene Waste Operations.
(5) 40 CFR Part 63 Subparts adopted by this rule are titled as follows:
(a) Subpart A -- General Provisions;
(b) Subpart F -- SOCMI;
(c) Subpart G -- SOCMI -- Process Vents, Storage Vessels, Transfer Operations, and Wastewater;
(d) Subpart H -- SOCMI -- Equipment Leaks;
(e) Subpart I -- Certain Processes Subject to the Negotiated Regulation for Equipment Leaks;
(f) Subpart J -- Polyvinyl Chloride and Copolymers Production;
(g) Subpart L -- Coke Oven Batteries;
(h) Subpart M -- Perchloroethylene Air Emission Standards for Dry Cleaning Facilities (as codified in the July 1, 2006 CFR);
(i) Subpart N -- Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks;
(j) Subpart O -- Ethylene Oxide Emissions Standards for Sterilization Facilities;
(k) Subpart Q -- Industrial Process Cooling Towers;
(l) Subpart R -- Gasoline Distribution (Bulk Gasoline Terminals and Pipeline Breakout Stations);
(m) Subpart S -- Pulp and Paper Industry;
(n) Subpart T -- Halogenated Solvent Cleaning;
(o) Subpart U -- Group I Polymers and Resins;
(p) Subpart W -- Epoxy Resins and Non-Nylon Polyamides Production;
(q) Subpart X -- Secondary Lead Smelting;
(r) Subpart Y -- Marine Tank Vessel Loading Operations;
(s) Subpart AA -- Phosphoric Acid Manufacturing Plants;
(t) Subpart BB -- Phosphate Fertilizer Production Plants;
(u) Subpart CC -- Petroleum Refineries;
(v) Subpart DD -- Off-Site Waste and Recovery Operations;
(w) Subpart EE -- Magnetic Tape Manufacturing Operations;
(x) Subpart GG -- Aerospace Manufacturing and Rework Facilities;
(y) Subpart HH -- Oil and Natural Gas Production Facilities;
(z) Subpart II -- Shipbuilding and Ship Repair (Surface Coating);
(aa) Subpart JJ -- Wood Furniture Manufacturing Operations;

(bb) Subpart KK -- Printing and Publishing Industry;
(cc) Subpart LL -- Primary Aluminum Reduction Plants;
(dd) Subpart MM -- Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite and Stand-Alone Semi-Chemical Pulp Mills;
(ee) Subpart OO -- Tanks -- Level 1;
(ff) Subpart PP -- Containers;
(gg) Subpart QQ -- Surface Impoundments;
(hh) Subpart RR -- Individual Drain Systems;
(ii) Subpart SS -- Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process;
(jj) Subpart TT -- Equipment Leaks -- Control Level 1;
(kk) Subpart UU -- Equipment Leaks -- Control Level 2;
(ll) Subpart VV -- Oil-Water Separators and Organic-Water Separators;
(mm) Subpart WW -- Storage Vessels (Tanks) -- Control Level 2;
(nn) Subpart XX -- Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations;
(oo) Subpart YY -- Generic Maximum Achievable Control Technology Standards;
(pp) Subpart CCC -- Steel Pickling -- HCl Process Facilities and Hydrochloric Acid Regeneration Plants;
(qq) Subpart DDD -- Mineral Wool Production;
(rr) Subpart EEE -- Hazardous Waste Combustors;
(ss) Subpart GGG -- Pharmaceuticals Production;
(tt) Subpart HHH -- Natural Gas Transmission and Storage Facilities;
(uu) Subpart III -- Flexible Polyurethane Foam Production;
(vv) Subpart JJJ -- Group IV Polymers and Resins;
(ww) Subpart LLL -- Portland Cement Manufacturing Industry;
(xx) Subpart MMM -- Pesticide Active Ingredient Production;
(yy) Subpart NNN -- Wool Fiberglass Manufacturing;
(zz) Subpart OOO -- Manufacture of Amino/Phenolic Resins;
(aaa) Subpart PPP -- Polyether Polyols Production;
(bbb) Subpart QQQ -- Primary Copper Smelting;
(ccc) Subpart RRR -- Secondary Aluminum Production;
(ddd) Subpart TTT -- Primary Lead Smelting;
(eee) Subpart UUU -- Petroleum Refineries -- Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units;
(fff) Subpart VVV -- Publicly Owned Treatment Works;
(ggg) Subpart XXX -- Ferroalloys Production: Ferromanganese and Silicomanganese;
(hhh) Subpart AAAA -- Municipal Solid Waste Landfills;
(iii) Subpart CCCC -- Manufacturing of Nutritional Yeast;
(jjj) Subpart DDDD -- Plywood and Composite Wood Products;
(kkk) Subpart EEEE -- Organic Liquids Distribution (non-gasoline);
(lll) Subpart FFFF -- Miscellaneous Organic Chemical Manufacturing;
(mmm) Subpart GGGG -- Solvent Extraction for Vegetable Oil Production;
(nnn) Subpart HHHH -- Wet Formed Fiberglass Mat Production;
(ooo) Subpart IIII -- Surface Coating of Automobiles and Light-Duty Trucks;

(ppp) Subpart JJJJ -- Paper and Other Web Coating;
(qqq) Subpart KKKK -- Surface Coating of Metal Cans;
(rrr) Subpart MMMM -- Surface Coating of Miscellaneous Metal Parts and Products;
(sss) Subpart NNNN -- Surface Coating of Large Appliances;
(ttt) Subpart OOOO -- Printing, Coating, and Dyeing of Fabrics and Other Textiles;
(uuu) Subpart PPPP -- Surface Coating of Plastic Parts and Products;
(vvv) Subpart QQQQ -- Surface Coating of Wood Building Products;
(www) Subpart RRRR -- Surface Coating of Metal Furniture;
(xxx) Subpart SSSS -- Surface Coating of Metal Coil;
(yyy) Subpart TTTT -- Leather Finishing Operations;
(zzz) Subpart UUUU -- Cellulose Production Manufacturing;
(aaaa) Subpart VVVV -- Boat Manufacturing;
(bbbb) Subpart WWWW -- Reinforced Plastics Composites Production;
(cccc) Subpart XXXX -- Rubber Tire Manufacturing;
(dddd) Subpart YYYY -- Stationary Combustion Turbines;
(eeee) Subpart ZZZZ -- Reciprocating Internal Combustion Engines;
(ffff) Subpart AAAAA -- Lime Manufacturing;
(gggg) Subpart BBBBB -- Semiconductor Manufacturing;
(hhhh) Subpart CCCCC -- Coke Ovens: Pushing, Quenching & Battery Stacks;
~~(iiii) Subpart DDDDD -- Industrial, Commercial, and Institutional Boilers and Process Heaters;~~
(jjjj) Subpart EEEEE -- Iron and Steel Foundries;
(kkkk) Subpart FFFFF -- Integrated Iron and Steel Manufacturing Facilities;
(llll) Subpart GGGGG -- Site Remediation;
(mmmm) Subpart HHHHH -- Misc. Coating Manufacturing;
(nnnn) Subpart IIIII -- Mercury Cell Chlor-Alkali Plants;
(oooo) Subpart JJJJJ -- Brick and Structural Clay Products Manufacturing;
(pppp) Subpart KKKKK -- Clay Ceramics Manufacturing;
(qqqq) Subpart LLLLL -- Asphalt Processing & Asphalt Roofing Manufacturing;
(rrrr) Subpart MMMMM -- Flexible Polyurethane Foam Fabrication Operations;
(ssss) Subpart NNNNN -- Hydrochloric Acid Production;
(tttt) Subpart PPPPP -- Engine Tests Cells/Stands;
(uuuu) Subpart QQQQQ -- Friction Materials Manufacturing Facilities;
(vvvv) Subpart RRRRR -- Taconite Iron Ore Processing;
(wwww) Subpart SSSSS -- Refractory Products Manufacturing;
(xxxx) Subpart TTTTT -- Primary Magnesium Refining;~~.~~
(yyyy) Subpart WWWWW -- Area Sources: Hospital Ethylene Oxide Sterilization;
(zzzz) Subpart YYYYY -- Area Sources: Electric Arc Furnace Steelmaking Facilities;
(aaaaa) Subpart ZZZZZ -- Area Sources: Iron and Steel Foundries;
(bbbbb) Subpart BBBBBB -- Area Sources: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities;
(ccccc) Subpart DDDDDD -- Area Sources: Polyvinyl Chloride and Copolymers Production;
(ddddd) Subpart EEEEEE -- Area Sources: Primary Copper Smelting;
(eeeee) Subpart FFFFFF -- Area Sources: Secondary Copper Smelting;
(fffff) Subpart GGGGGG -- Area Sources: Primary Nonferrous Metals -- Zinc, Cadmium, and Beryllium;

(ggggg) Subpart LLLLLL -- Area Sources: Acrylic and Modacrylic Fibers Production;
(hhhhh) Subpart MMMMMM -- Area Sources: Carbon Black Production;
(iiiii) Subpart NNNNNN -- Area Sources: Chemical Manufacturing: Chromium Compounds;
(jjjjj) Subpart OOOOOO -- Area Sources: Flexible Polyurethane Foam Production;
(kkkkk) Subpart PPPPPP -- Area Sources: Lead Acid Battery Manufacturing;
(lllll) Subpart QQQQQQ -- Area Sources: Wood Preserving;
(mmmmm) Subpart RRRRRR -- Area Sources: Clay Ceramics Manufacturing;
(nnnnn) Subpart SSSSSS -- Area Sources: Glass Manufacturing;
(ooooo) Subpart TTTTTT -- Area Sources: Secondary Nonferrous Metals Processing.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: [DEQ 16-1995, f. & cert. ef. 6-21-95; DEQ 28-1996, f. & cert. ef. 12-19-96; DEQ 18-1998, f. & cert. ef. 10-5-98]; [DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 32-1994, f. & cert. ef. 12-22-94]; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0510, 340-032-5520; DEQ 11-2000, f. & cert. ef. 7-27-00; DEQ 15-2001, f. & cert. ef. 12-26-01; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 228

Mercury Rules ~~F~~for Coal-Fired Power Plants

~~Clean Air~~ Utility Mercury Rule

~~Hg Budget Trading Program~~ General Provisions

340-228-0600
Purpose
This rule establishes the ~~designated representative, permitting, allowance,~~ mandatory reduction levels~~,~~ and monitoring provisions for the Utility Mercury Rule~~mercury (Hg) Budget Trading Program~~, as a means of reducing mercury (Hg) emissions ~~nationally and~~ in Oregon. ~~The Department authorizes the Administrator to assist the Department in implementing the interstate Hg Trading Program by carrying out the functions set forth for the Administrator.~~
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

340-228-0601
Applicability
(1) Except as provided in section (2) of this rule:
(a) The following units in the State shall be coal-fired electric generating units subject to the requirements of OAR 340-228-0600 through 0637: Any stationary, coal-fired boiler or stationary, coal-fired combustion turbine serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale.
(b) If a stationary boiler or stationary combustion turbine that, under subsection (1)(a) of this rule, is not a coal-fired electric generating unit begins to combust coal or coal-derived fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a coal-fired electric generating unit as provided in subsection (1)(a) of this rule on the first date on which it both combusts coal or coal-derived fuel and serves such generator.
(2) The units in the State that meet the requirements set forth in paragraph (2)(a)(A) or subsection (2)(b) of this rule are not coal-fired electric generating units:
(a) Any unit that is a coal-fired electric generating unit under subsection (1)(a) or (b) of this rule:
(A) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.
(B) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraph (2)(a)(A) of this rule for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a coal-fired

electric generating unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of paragraph (2)(a)(A) of this rule.
(b) Any unit that is a coal-fired electric generating unit under subsection (1)(a) or (b) of this rule, is a solid waste incineration unit combusting municipal waste, and is subject to the requirements of:
(A) A State Plan approved by the Administrator of the EPA in accordance with 40 CFR part 60 subpart Cb (emissions guidelines and compliance times for certain large municipal waste combustors);
(B) 40 CFR part 60 subpart Eb (standards of performance for certain large municipal waste combustors);
(C) 40 CFR part 60 subpart AAAA (standards of performance for certain small municipal waste combustors);
(D) A State Plan approved by the Administrator of the EPA in accordance with 40 CFR part 60 subpart BBBB (emission guidelines and compliance times for certain small municipal waste combustion units);
(E) 40 CFR part 62 subpart FFF (Federal Plan requirements for certain large municipal waste combustors); or
(F) 40 CFR part 62 subpart JJJ (Federal Plan requirements for certain small municipal waste combustion units).

340-228-0602
Definitions
~~(1) "Account number" means the identification number given by the Administrator to each Hg Allowance Tracking System account.~~
(1~~2~~) "Acid rain emissions limitation" means a limitation on emissions of sulfur dioxide or nitrogen oxides under the Acid Rain Program.
(2~~3~~) "Acid Rain Program" means a multi-state sulfur dioxide and nitrogen oxides air pollution control and emission reduction program established by the Administrator under title IV of the CAA and 40 CFR parts 72 through 78.
~~(4) "Administrator" means the Administrator of the United States Environmental Protection Agency or the Administrator's duly authorized representative.~~
~~(5) "Allocate or allocation" means the determination by the permitting authority or the Administrator of the amount of Hg allowances to be initially credited to a Hg Budget unit or a new unit set aside under OAR 340-228-0632 through 0636.~~
~~(6) "Allowance transfer deadline" means, for a control period, midnight of March 1, if it is a business day, or, if March 1 is not a business day, midnight of the first business day thereafter immediately following the control period and is the deadline by which a Hg allowance transfer must be submitted for recordation in a Hg Budget source's compliance account in order to be used to meet the source's Hg Budget emissions limitation for such control period in accordance with OAR 340-228-0644.~~
~~(7) "Alternate Hg designated representative" means, for a Hg Budget source and each Hg Budget unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source in accordance with OAR 340-228-0612 through 0620, to act on behalf of the Hg designated representative in matters pertaining to the Hg Budget Trading Program.~~
(3~~8~~) "Automated data acquisition and handling system or DAHS" means that component of the continuous emission monitoring system (CEMS), or other emissions monitoring system approved for use under OAR 340-228-0609~~58~~ though 0637~~70~~, designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and other

component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required OAR 340-228-060958 through 063770.
(4) "Biomass" means:
(a) Any organic material grown for the purpose of being converted to energy;
(b) Any organic byproduct of agriculture that can be converted into energy; or
(c) Any material that can be converted into energy and is nonmerchantable for other purposes, that is segregated from other nonmerchantable material, and that is;
(A) A forest-related organic resource, including mill residues, precommercial thinnings, slash, brush, or byproduct from conversion of trees to merchantable material; or
(B) A wood material, including pallets, crates, dunnage, manufacturing and construction materials (other than pressure-treated, chemically-treated, or painted wood products), and landscape or right-of-way tree trimmings.
(59) "Boiler" means an enclosed fossil-or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.
(610) "Bottoming-cycle cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.
~~(11) "Clean Air Act" or "CAA" means the Clean Air Act, 42 U.S.C. 7401, et seq.~~
(712) "Coal" means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D388-77, 90, 91, 95, 98a, or 99 (Reapproved 2004) & epsiv; (incorporated by reference, see 40 CFR 60.17).
(813) "Coal-derived fuel" means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal, or chemical processing of coal.
(914) "Coal-fired" means combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during any year.
(1015) "Cogeneration unit" means a stationary, coal-fired boiler or stationary, coal-fired combustion turbine:
(a) Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy; and
(b) Producing during the 12-month period starting on the date the unit first produces electricity and during any calendar year after which the unit first produces electricity:
(A) For a topping-cycle cogeneration unit,
(i) Useful thermal energy not less than 5 percent of total energy output; and
(ii) Useful power that, when added to one-half of useful thermal energy produced, is not less then 42.5 percent of total energy input, if useful thermal energy produced is 15 percent or more of total energy output, or not less than 45 percent of total energy input, if useful thermal energy produced is less than 15 percent of total energy output.
(B) For a bottoming-cycle cogeneration unit, useful power not less than 45 percent of total energy input.
(c) Provided that the total energy input under paragraphs (b)(A)(ii) and (b)(B) of this definition equals the unit's total energy input from all fuel except biomass if the unit is a boiler.
(1116) "Combustion turbine" means:
(a) An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and

(b) If the enclosed device under paragraph (a) of this definition is combined cycle, any associated heat recovery steam generator and steam turbine.
(12~~17~~) "Commence commercial operation" means, with regard to a unit serving a generator:
(a) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation~~, except as provided in OAR 340-228-0605~~.
(A) For a unit that is a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences commercial operation as defined in paragraph (a) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the unit's date of commencement of commercial operation.
(B) For a unit that is a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences commercial operation as defined in paragraph (a) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (a) or (b) of this definition as appropriate.
(b) Notwithstanding paragraph (a) of this definition~~ and except as provided in OAR 340-228-0605~~, for a unit that is not a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences commercial operation as defined in paragraph (a) of this definition, the unit's date for commencement of commercial operation shall be the date on which the unit becomes a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601.
(A) For a unit with a date for commencement of commercial operation as defined in paragraph (b) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date remains the unit's date of commencement of commercial operation.
(B) For a unit with a date for commencement of commercial operation as defined in paragraph (b) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (a) or (b) of this definition as appropriate.
(13~~18~~) "Commence operation" means:
(a) To have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber~~, except as provided in OAR 340-228-0605~~.
(A) For a unit that is a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences operation as defined in paragraph (a) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the unit's date of commencement of operation.
(B) For a unit that is a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences operation as defined in paragraph (a) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (a) or (b) of this definition as appropriate.
(b) Notwithstanding paragraph (a) of this definition~~ and except as provided in OAR 340-228-0605~~, for a unit that is not a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences operation as defined in paragraph (a) of this definition, the unit's date for commencement of operation shall be the date on which the unit becomes a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601.

(A) For a unit with a date for commencement of operation as defined in paragraph (b) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the unit's date of commencement of operation.
(B) For a unit with a date for commencement of operation as defined in paragraph (b) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (a) or (b) of this definition as appropriate.
(1419) "Common stack" means a single flue through which emissions from 2 or more units are exhausted.
~~(20) "Compliance account" means a Hg Allowance Tracking System account, established by the Administrator for a Hg Budget source under OAR 340-228-0638 through 0650, in which any Hg allowance allocations for the Hg Budget units at the source are initially recorded and in which are held any Hg allowances available for use for a control period in order to meet the source's Hg Budget emissions limitation in accordance with OAR 340-228-0644.~~
(1521) "Continuous emission monitoring system" or "CEMS" means the equipment required under OAR 340-228-060958 through 063770 to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of Hg emissions, stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon dioxide concentration (as applicable), in a manner consistent with **40 CFR part 75 and OAR 340-228-0609 through 0637**. The following systems are the principal types of CEMS required under OAR 340-228-060958 through 063770:
(a) A flow monitoring system, consisting of a stack flow rate monitor and an automated data acquisition and handling system and providing a permanent, continuous record of stack gas volumetric flow rate, in units of standard cubic feet per hour (scfh);
(b) A Hg concentration monitoring system, consisting of a Hg pollutant concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of Hg emissions in units of micrograms per dry standard cubic meter (µg/dscm);
(c) A moisture monitoring system, as defined in **40 CFR 75.11(b)(2)** and providing a permanent, continuous record of the stack gas moisture content, in percent H2O.
(d) A carbon dioxide monitoring system, consisting of a CO_2 concentration monitor (or an oxygen monitor plus suitable mathematical equations from which the CO_2 concentration is derived) and an automated data acquisition and handling system and providing a permanent, continuous record of CO_2 emissions, in percent CO_2; and
(e) An oxygen monitoring system, consisting of an O_2 concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of O_2, in percent O_2.
~~(22) "Control period" means the period beginning January 1 of a calendar year and ending on December 31 of the same year, inclusive.~~
(1623) "Emissions" means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the DepartmentAdministrator by the owner or operator~~Hg designated representative~~ and as determined by the DepartmentAdministrator in accordance with OAR 340-228-060958 through 063770.
~~(24) "Excess emissions" means any ounce of mercury emitted by the Hg Budget units at a Hg Budget source during a control period that exceeds the Hg Budget emissions limitation for the source.~~
~~(25) "General account" means a Hg Allowance Tracking System account, established under OAR 340-228-0638, that is not a compliance account.~~

(1726) "Generator" means a device that produces electricity.

~~(27) "Gross electrical output" means, with regard to a cogeneration unit, electricity made available for use, including any such electricity used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).~~

(1828) "Heat input" means, with regard to a specified period of time, the product (in MMBtu/time) of the gross calorific value of the fuel (in Btu/lb) divided by 1,000,000 Btu/MMBtu and multiplied by the fuel feed rate into a combustion device (in lb of fuel/time), as measured, recorded, and reported to the Department~~Administrator~~ by the owner or operator~~Hg designated representative~~ and determined by the Department~~Administrator~~ in accordance with OAR 340-228-06095~~8~~ through 06377~~0~~ and excluding the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

(1929) "Heat input rate" means the amount of heat input (in MMBtu) divided by unit operating time (in hr) or, with regard to a specific fuel, the amount of heat input attributed to the fuel (in MMBtu) divided by the unit operating time (in hr) during which the unit combusts the fuel.

(20) "Hg CEMS" means a Hg pollutant concentration monitor and an automated DAHS. A Hg CEMS provides a permanent, continuous record of Hg emissions in units of micrograms per standard cubic meter (µg/m3).

~~(30) "Hg allowance" means a limited authorization issued by the permitting authority or the Administrator under OAR 340-228-0632 through 0636 to emit one ounce of mercury during a control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the Hg Budget Trading Program. An authorization to emit mercury that is not issued under the provisions of a State plan that adopt the requirements of this rule and are approved by the Administrator in accordance with 40 CFR 60.24(h)(6) shall not be a "Hg allowance."~~

~~(31) "Hg allowance deduction or deduct Hg allowances" means the permanent withdrawal of Hg allowances by the Administrator from a compliance account in order to account for a specified number of ounces of total mercury emissions from all Hg Budget units at a Hg Budget source for a control period, determined in accordance with OAR 340-228-0638 though 0650 and 340-228-0658 through 0670, or to account for excess emissions.~~

~~(32) "Hg allowances held or hold Hg allowances" means the Hg allowances recorded by the Administrator, or submitted to the Administrator for recordation, in accordance with OAR 340-228-0638 through 0656, in a Hg Allowance Tracking System account.~~

~~(33) "Hg Allowance Tracking System" means the system by which the Administrator records allocations, deductions, and transfers of Hg allowances under the Hg Budget Trading Program. Such allowances will be allocated, held, deducted, or transferred only as whole allowances.~~

~~(34) "Hg Allowance Tracking System account" means an account in the Hg Allowance Tracking System established by the Administrator for purposes of recording the allocation, holding, transferring, or deducting of Hg allowances.~~

~~(35) "Hg authorized account representative" means, with regard to a general account, a responsible natural person who is authorized, in accordance with OAR 340-228-0640, to transfer and otherwise dispose of Hg allowances held in the general account and, with regard to a compliance account, the Hg designated representative of the source.~~

~~(36) "Hg Budget emissions limitation" means, for a Hg Budget source, the equivalent in ounces of the Hg allowances available for deduction for the source under OAR 340-228-0644(1) and (2) for a control period.~~

~~(37) "Hg Budget permit" means the legally binding and Federally enforceable written document, or portion of such document, issued by the permitting authority under OAR 340-228-0622 through 0630, including any permit revisions, specifying the Hg Budget Trading Program requirements applicable to a Hg Budget source, to each Hg Budget unit at the source, and to the owners and operators and the Hg designated representative of the source and each such unit.~~

~~(38) "Hg Budget source" means a source that includes one or more Hg Budget units.~~

~~(39) "Hg Budget Trading Program" means a multi-state Hg air pollution control and emission reduction program approved and administered by the Administrator in accordance with this rule and 40 CFR 60.24(h)(6), as a means of reducing national Hg emissions.~~

~~(40) "Hg Budget unit" means a unit that is subject to the Hg Budget Trading Program under OAR 340-228-0604.~~

~~(41) "Hg designated representative" means, for a Hg Budget source and each Hg Budget unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source, in accordance with OAR 340-228-0612 through 0620, to represent and legally bind each owner and operator in matters pertaining to the Hg Budget Trading Program.~~

(2142) "Life-of-the-unit, firm power contractual arrangement" means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy generated by any specified unit and pays its proportional amount of such unit's total costs, pursuant to a contract:

(a) For the life of the unit;

(b) For a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or

(c) For a period no less than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

(2243) "Lignite" means coal that is classified as lignite A or B according to the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D338-77, 90, 91, 95, 98a, or 99 (Reapproved 2004) & epsiv; (incorporated by reference, see 40 CFR 60.17).

(2344) "Maximum design heat input" means, starting from the initial installation of a unit, the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady-state basis as specified by the manufacturer of the unit, or, starting from the completion of any subsequent physical change in the unit resulting in a decrease in the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady-state basis, such decreased maximum amount as specified by the person conducting the physical change.

(24) "Maximum expected Hg concentration (MEC)" means, the maximum expected Hg concentration (MEC) during normal, stable operation of the unit and emission controls. To calculate the MEC, substitute the MPC value from section (25) of this rule into Equation A–2 in section 2.1.1.2 of **appendix A to 40 CFR part 75**. Base the percent removal efficiency on design engineering calculations.

(25) "Maximum potential Hg concentration (MPC)" means the following:

(a) The maximum potential concentration depends upon the type of coal combusted. For the initial MPC determination, the MPC is one of the following:

(A) The MPC is one of the following default values: 9 µg/sem3 for bituminous coal; 10 µg/sem3 for sub-bituminous coal; 16 µg/sem3 for lignite, and 1 µg/sem3 for waste coal. If different coals are blended, the MPC is the highest MPC for any fuel in the blend; or

(B) The MPC may be based on the results of site-specific emission testing using one of the Hg reference methods in section (33) of this rule or in **40 CFR 75.22**, if the unit does not have add-on Hg emission controls, or if testing upstream of these control devices. A minimum of 3 test runs are required, at the normal operating load. The highest total Hg concentration obtained in any of the tests may be used as the MPC; or

(C) The MPC is based on the maximum potential Hg concentration on 720 or more hours of historical CEMS data or data from a sorbent trap monitoring system, if the unit does not have add-on Hg emission controls (or if the CEMS or sorbent trap system is located upstream of the control device) and if the Hg CEMS or sorbent trap system has been tested for relative accuracy against one of the Hg reference methods in section (33) of this rule or in **40 CFR 75.22** and has met a relative accuracy specification of 20.0% or less.

(b) For the purposes of missing data substitution, the fuel-specific or site-specific MPC values defined in subsection (25)(a) of this rule apply to units using sorbent trap monitoring systems.

(26~~45~~) "Monitoring system" means any monitoring system that meets the requirements of OAR 340-228-0609~~58~~ through 0637~~70~~, including a continuous emissions monitoring system~~,~~ or an alternative monitoring system~~, or an excepted monitoring system~~ under **40 CFR part 75**.

(27~~46~~) "Nameplate capacity" means, starting from the initial installation of a generator, the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady-state basis and during continuous operation (when not restricted by seasonal or other deratings) as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady-state basis and during continuous operation (when not restricted by seasonal or other deratings), such increased maximum amount as specified by the person conducting the physical change.

(28) "NIST traceable elemental Hg standards" means either:

(a) Compressed gas cylinders having known concentrations of elemental Hg, which have been prepared according to the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards"; or

(b) Calibration gases having known concentrations of elemental Hg, produced by a generator that fully meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Elemental Mercury Gas Generators".

(29) "NIST traceable source of oxidized Hg" means a generator that: Is capable of providing known concentrations of vapor phase mercuric chloride (HgCl2), and that fully meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Oxidized Mercury Gas Generators".

(30~~47~~) "Operator" means any person who operates, controls, or supervises a coal-fired electric generating unit~~Hg Budget unit or a Hg Budget source~~ and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

~~(48) "Ounce" means 2.8410^{7} micrograms. For the purpose of determining compliance with the Hg Budget emissions limitation, total ounces of mercury emissions for a control period shall be calculated as the sum of all recorded hourly emissions (or the mass equivalent of the recorded hourly emission rates) in accordance with OAR 340-228-0658 through 0670, but with any remaining fraction of an ounce equal to or greater than 0.50 ounces deemed to equal one ounce and any remaining fraction of an ounce less than 0.50 ounces deemed to equal zero ounces.~~

(31~~49~~) "Owner" means any of the following persons:

~~(a) With regard to a Hg Budget source or a Hg Budget unit at a source, respectively:~~

(a~~A~~) Any holder of any portion of the legal or equitable title in a coal-fired electric generating unit~~Hg Budget unit at the source or the Hg Budget unit~~;

(b~~B~~) Any holder of a leasehold interest in a coal-fired electric generating unit~~Hg Budget unit at the source or the Hg Budget unit~~; or

(c~~C~~) Any purchaser of power from a coal-fired electric generating unit~~Hg Budget unit at the source or the Hg Budget unit~~ under a life-of-the-unit, firm power contractual arrangement; provided that, unless expressly provided for in a leasehold agreement, owner shall not include a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based (either directly or indirectly) on the revenues or income from such coal-fired electric generating unit.~~Hg Budget unit; or~~

~~(b) With regard to any general account, any person who has an ownership interest with respect to the Hg allowances held in the general account and who is subject to the binding agreement for the Hg authorized account representative to represent the person's ownership interest with respect to Hg allowances.~~

~~(50) Permitting authority means the State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to issue or revise permits to meet the requirements of the Hg Budget Trading Program in accordance with 40 CFR 340-228-0622 through 0630 or, if no such agency has been so authorized, the Administrator.~~

(32~~51~~) "Potential electrical output capacity" means 33 percent of a unit's maximum design heat input, divided by 3,413 Btu/kWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 hr/yr.

~~(52) "Receive or receipt of" means, when referring to the permitting authority or the Administrator, to come into possession of a document, information, or correspondence (whether sent in hard copy or by authorized electronic transmission), as indicated in an official correspondence log, or by a notation made on the document, information, or correspondence, by the permitting authority or the Administrator in the regular course of business.~~

~~(53) "Recordation, record, or recorded" means, with regard to Hg allowances, the movement of Hg allowances by the Administrator into or between Hg Allowance Tracking System accounts, for purposes of allocation, transfer, or deduction.~~

(33~~54~~) "Reference method" means any direct test method of sampling and analyzing for an air pollutant as follows or as specified in **40 CFR 75.22**.

(a) ASTM D6784–02, "Standard Test Method for Elemental, Oxidized, Particle-Bound, and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources" (Ontario Hydro Method) is the reference method for determining Hg concentration.

(b) Method 29 (40 CFR Part 60, Appendix A-8) for determining Hg concentration.

(c) Method 30A (40 CFR Part 60, Appendix A), "Determination of Total Vapor Phase Mercury Emissions from Stationary Sources (Instrumental Analyzer Procedure)" for determining Hg concentration.

(d) Method 30B (40 CFR Part 60, Appendix A), "Determination of Total Vapor Phase Mercury Emissions from Coal-Fired Combustion Sources Using Carbon Sorbent Traps" for determining Hg concentration.

(e) Method 29 (40 CFR Part 60, Appendix A-8) may be used with these caveats: The procedures for preparation of Hg standards and sample analysis in sections 13.4.1.1 through 13.4.1.3 ASTM D6784–02 must be followed instead of the procedures in sections 7.5.33 and 11.1.3 of Method 29, and the QA/QC procedures in section 13.4.2 of ASTM D6784–02 must be performed instead of the procedures in section 9.2.3 of Method 29. The tester may also opt to use the sample recovery and preparation

procedures in ASTM D6784–02 instead of the Method 29 procedures, as follows: sections 8.2.8 and 8.2.9.1 of Method 29 may be replaced with sections 13.2.9.1 through 13.2.9.3 of ASTM D6784–02; sections 8.2.9.2 and 8.2.9.3 of Method 29 may be replaced with sections 13.2.10.1 through 13.2.10.4 of ASTM D6784–02; section 8.3.4 of Method 29 may be replaced with section 13.3.4 or 13.3.6 of ASTM D6784–02 (as appropriate); and section 8.3.5 of Method 29 may be replaced with section 13.3.5 or 13.3.6 of ASTM D6784–02 (as appropriate).

(f) Whenever ASTM D6784–02 or Method 29 is used, paired sampling trains are required. To validate a RATA run or an emission test run, the relative deviation (RD), calculated according to OAR 340-228-0627(12)(g), must not exceed 10 percent, when the average concentration is greater than 1.0 µg/m3. If the average concentration is ≤1.0 µg/m3, the RD must not exceed 20 percent. The RD results are also acceptable if the absolute difference between the Hg concentrations measured by the paired trains does not exceed 0.03 µg/m3. If the RD criterion is met, the run is valid. For each valid run, average the Hg concentrations measured by the two trains (vapor phase, only).

(g) When Method 29 or ASTM D6784–02 is used for the Hg emission testing required under OAR 340-228-0613(3) and (4), locate the reference method test points according to section 8.1 of Method 30A, and if Hg stratification testing is part of the test protocol, follow the procedures in sections 8.1.3 through 8.1.3.5 of Method 30A.

(34~~55~~) "Repowered" means, with regard to a unit, replacement of a coal-fired boiler with one of the following coal-fired technologies at the same source as the coal-fired boiler:

(a) Atmospheric or pressurized fluidized bed combustion;

(b) Integrated gasification combined cycle;

(c) Magnetohydrodynamics;

(d) Direct and indirect coal-fired turbines;

(e) Integrated gasification fuel cells; or

(f) As determined by the Department~~Administrator~~ in consultation with the Secretary of Energy, a derivative of one or more of the technologies under paragraphs (a) through (e) of this definition and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of January 1, 2005.

~~(56) "Serial number" means, for a Hg allowance, the unique identification number assigned to each Hg allowance by the Administrator.~~

(35~~57~~) "Sequential use of energy" means:

(a) For a topping-cycle cogeneration unit, the use of reject heat from electricity production in a useful thermal energy application or process; or

(b) For a bottoming-cycle cogeneration unit, the use of reject heat from useful thermal energy application or process in electricity production.

(36) "Sorbent trap monitoring system" means the equipment required for the continuous monitoring of Hg emissions, using paired sorbent traps containing iodinized charcoal (IC) or other suitable reagent(s). This excepted monitoring system consists of a probe, the paired sorbent traps, a heated umbilical line, moisture removal components, an airtight sample pump, a dry gas meter, and an automated data acquisition and handling system. The monitoring system samples the stack gas at a rate proportional to the stack gas volumetric flow rate. The sampling is a batch process. Using the sample volume measured by the dry gas meter and the results of the analyses of the sorbent traps, the average Hg concentration in the stack gas for the sampling period is determined, in units of micrograms per dry standard cubic meter (µg/dscm). Mercury mass emissions for each hour in the sampling period are calculated using the

average Hg concentration for that period, in conjunction with contemporaneous hourly measurements of the stack gas flow rate, corrected for the stack gas moisture content.

~~(358) "Source" means all buildings, structures, or installations located in one or more contiguous or adjacent properties under common control for the same person or persons. For purposes of section 502(c) of the CAA, a "source" including "a source" with multiple units, shall be considered a single "facility".~~

~~(59) "State" means:~~

~~(a) For purposes of referring to a governing entity, one of the States in the United States, the District of Columbia, or, if approved for treatment as a State under 40 CFR part 49, the Navajo Nation or Ute Indian Tribe that adopts the Hg Budget Trading Program pursuant to 40 CFR 60.24(h)(6); or~~

~~(b) For purposes of referring to geographic areas, one of the States in the United States, the District of Columbia, the Navajo Nation Indian country, or the Ute Tribe Indian country.~~

(3760) "Subbituminous" means coal that is classified as subbituminous A, B, or C, according to the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D388-77, 90, 91, 95, 98a, or 99 (Reapproved 2004) ~~& epsiv;~~ (incorporated by reference, see 40 CFR 60.17).

(3861) "Submit or serve" means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation:

(a) In person;

(b) By United States Postal Service; or

(c) By other means of dispatch or transmission and delivery. Compliance with any "submission" or "service" deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.

(3962) "Title V operating permit" means a permit issued under title V of the CAA and 40 CFR part 70 or 71.

(4063) "Title V operating permit regulations" means the regulations that the Administrator has approved or issued as meeting the requirements of title V of the CAA and 40 CFR part 70 or 71.

(4164) "Topping-cycle cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.

(4265) "Total energy input" means, with regard to a cogeneration unit, total energy of all forms supplied to the cogeneration unit, excluding energy produced by the cogeneration unit itself. Each form of energy supplied shall be measured by the lower heating value of that form of energy calculated as follows:

$$LHV = HHV - 10.55(W + 9H)$$

Where:

LHV = lower heating value of fuel in Btu/lb,

HHV = higher heating value of fuel in Btu/lb,

W = Weight % of moisture in fuel, and

H = Weight % of hydrogen in fuel.

(4366) "Total energy output" means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.

(4467) "Unit" means a stationary coal-fired boiler or a stationary coal-fired combustion turbine.

(45~~68~~) "Unit operating day" means a calendar day in which a unit combusts any fuel.
(46~~69~~) "Unit operating hour" or "hour of unit operation" means an hour in which a unit combusts any fuel.
(47~~70~~) "Useful power" means, with regard to a cogeneration unit, electricity or mechanical energy made available for use, excluding any such energy used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).
(48~~71~~) "Useful thermal energy" means, with regard to a cogeneration unit, thermal energy that is:
(a) Made available to an industrial or commercial process (not a power production process), excluding any heat contained in condensate return or makeup water;
(b) Used in a heat application (e.g., space heating or domestic hot water heating); or
(c) Used in a space cooling application (i.e., thermal energy used by an absorption chiller).
(49~~72~~) "Utility power distribution system" means the portion of an electricity grid owned or operated by a utility and dedicated to delivering electricity to customers.
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

340-228-0603
Measurements, Abbreviations, and Acronyms~~Untitled~~
Measurements, abbreviations, and acronyms used in this part are defined as follows:
(1) Btu-British thermal unit.
(2) CO_2-carbon dioxide.
(3) dscm-dry standard cubic meter.
(4~~3~~) H_2O-water.
(5~~4~~) Hg-mercury.
(6~~5~~) hr-hour.
(7~~6~~) kW-kilowatt electrical.
(8~~7~~) kWh-kilowatt hour.
(9~~8~~) lb-pound.
(10) m3-standard cubic meter.
(11~~9~~) MMBtu-million Btu.
(12~~0~~) MWe-megawatt electrical.
(13~~1~~) MWh-megawatt hour.
(14~~2~~) NO_X-nitrogen oxides.
(15~~3~~) O_2-oxygen.
(16~~4~~) ppm-parts per million.
(17) scf-standard cubic foot.
(18~~6~~) scfh-standard cubic feet per hour.
(19~~6~~) SO_2-sulfur dioxide.
(20) µg-micrograms.
(21) wscm-wet standard cubic meter.
(22) yr-year.

Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

~~**340-228-0604**~~
~~**Applicability**~~
~~(1) Except as provided in section (2) of this rule:~~
~~(a) The following units in the State shall be Hg Budget units, and any source that includes one or more such units shall be a Hg Budget source, subject to the requirements of OAR 340-228-0600 through 0678 and 40 CFR part 60 subparts BB through HH: Any stationary, coal-fired boiler or stationary, coal-fired combustion turbine serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale.~~
~~(b) If a stationary boiler or stationary combustion turbine that, under subsection (1)(a) of this rule, is not a Hg Budget unit begins to combust coal or coal-derived fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a Hg Budget unit as provided in subsection (1)(a) of this rule on the first date on which it both combusts coal or coal-derived fuel and serves such generator.~~
~~(2) The units in the State that meet the requirements set forth in paragraph (2)(a)(A) or subsection (2)(b) of this rule are not Hg Budget units:~~
~~(a)(A) Any unit that is a Hg Budget unit under subsection (1)(a) or (b) of this rule:~~
~~(i) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and~~
~~(ii) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.~~
~~(B) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraph (2)(a)(A) of this rule for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a Hg Budget unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of subparagraph (2)(a)(A)(ii) of this rule.~~
~~(b) Any unit that is a Hg Budget unit under subsection (1)(a) or (b) of this rule, is a solid waste incineration unit combusting municipal waste, and is subject to the requirements of:~~
~~(A) A State Plan approved by the Administrator in accordance with 40 CFR part 60 subpart Cb (emissions guidelines and compliance times for certain large municipal waste combustors);~~
~~(B) 40 CFR part 60 subpart Eb (standards of performance for certain large municipal waste combustors);~~
~~(C) 40 CFR part 60 subpart AAAA (standards of performance for certain small municipal waste combustors);~~
~~(D) A State Plan approved by the Administrator in accordance with 40 CFR part 60 subpart BBBB (emission guidelines and compliance times for certain small municipal waste combustion units);~~
~~(E) 40 CFR part 62 subpart FFF (Federal Plan requirements for certain large municipal waste combustors); or~~

~~(F) 40 CFR part 62 subpart JJJ (Federal Plan requirements for certain small municipal waste combustion units).~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0605~~
~~Retired Unit Exemption~~
~~(1)(a) Any Hg Budget unit that is permanently retired is exempt from the Hg Budget Trading Program, except for the provisions of this rule, OAR 340-228-0602, 0604, 0606(3)(d) through (h), 0608, and 0638 through 0656.~~
~~(b) The exemption under subsection (1)(a) of this rule becomes effective the day on which the Hg Budget unit is permanently retired. Within 30 days of the unit's permanent retirement, the Hg designated representative must submit a statement to the Department and must submit a copy of the statement to the Administrator. The statement must state, in a format prescribed by the Department, that the unit was permanently retired on a specific date and will comply with the requirements of section (2) of this rule.~~
~~(c) After receipt of the statement under subsection (1)(b) of this rule, the Department will amend any permit under OAR 340-228-0622 through 0630 covering the source at which the unit is located to add the provisions and requirements of the exemption under subsection (1)(a) and subsection (2) of this rule.~~
~~(2) Special provisions.~~
~~(a) A unit exempt under section (1) of this rule must not emit any mercury, starting on the date that the exemption takes effect.~~
~~(b) The Department will reallocate Hg allowances from a unit exempt under section (1) of this rule in accordance with OAR 340-228-0632 through 0636.~~
~~(b~~c) ~~For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under section (1) of this rule must retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Department or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.~~
~~(d) The owners and operators and, to the extent applicable, the Hg designated representative of a unit exempt under section (1) of this rule must comply with the requirements of the Hg Budget Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.~~
~~(e) A unit exempt under section (1) of this rule and located at a source that is required, or but for this exemption would be required, to have a title V operating permit must not resume operation unless the Hg designated representative of the source submits a complete Hg Budget permit application under OAR 340-228-0626 for the unit not less than 18 months (or such lesser time provided by the Department) before the later of January 1, 2010 or the date on which the unit resumes operation.~~
~~(c~~f) ~~On the earlier of the following dates, a~~A ~~unit exempt under section (1) of this rule will lose its exemption:~~
~~(A) The date on which the Hg designated representative submits a Hg Budget permit application for the unit under subsection (2)(e) of this rule;~~
~~(B) The date on which the Hg designated representative is required under subsection (2)(e) of this rule to submit a Hg Budget permit application for the unit; or~~

~~(C) The date on which the unit resumes operation, if the Hg designated representative is not required to submit a Hg Budget permit application for the unit.~~

~~(dg) For the purpose of applying monitoring, reporting, and recordkeeping requirements under OAR 340-228-0658 through 0670, a unit that loses its exemption under section (1) of this rule will be treated as a unit that commences operation and commercial operation on the first date on which the unit resumes operation.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

340-228-0606

Hg Emission Standards ~~Requirements~~

~~(1) Permit Requirements.~~

~~(a) The Hg designated representative of each Hg Budget source required to have a title V operating permit and each Hg Budget unit required to have a title V operating permit at the source must:~~

~~(A) Submit to the Department a complete Hg Budget permit application under OAR 340-228-0626 in accordance with the deadlines specified in OAR 340-228-0624(1) and (2); and~~

~~(B) Submit in a timely manner any supplemental information that the Department determines is necessary in order to review a Hg Budget permit application and issue or deny a Hg Budget permit.~~

~~(b) The owners and operators of each Hg Budget source required to have a title V operating permit and each Hg Budget unit required to have a title V operating permit at the source must have a Hg Budget permit issued by the Department under OAR 340-228-0622 through 0630 for the source and operate the source and the unit in compliance with such Hg Budget permit.~~

~~(c) The owners and operators of a Hg Budget source that is not required to have a title V operating permit and each Hg Budget unit that is not required to have a title V operating permit are not required to submit a Hg Budget permit application, and to have a Hg Budget permit, under OAR 340-228-0622 through 0630 for such Hg Budget source and such Hg Budget unit.~~

~~(2) Monitoring, reporting, and recordkeeping requirements.~~

~~(a) The owners and operators, and the Hg designated representative, of each Hg Budget source and each Hg Budget unit at the source must comply with the applicable monitoring, reporting, and recordkeeping requirements of OAR 340-228-0658 through 0670.~~

~~(b) The emissions measurements recorded and reported in accordance with OAR 340-228-0658 through 0670 must be used to determine compliance by each Hg Budget source with the Hg Budget emissions limitation under section (3) of this rule.~~

~~(3) Mercury emission requirements. The following mercury emission requirements shall apply to each Hg Budget unit for the control periods of 2010 through 2017. For the control periods of 2018 and thereafter, each Hg Budget unit must comply with the applicable emission cap in OAR 340-228-0672.~~

~~(a) As of the allowance transfer deadline for a control period, the owners and operators of each Hg Budget source and each Hg Budget unit at the source must hold, in the source's compliance account, Hg allowances available for compliance deductions for the control period under OAR 340-228-0644(1) in an amount not less than the ounces of total mercury emissions for the control period from all Hg Budget units at the source, as determined in accordance with OAR 340-228-0658 through 0670.~~

~~(b) A Hg Budget unit is subject to the requirements under subsection (3)(a) of this rule starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under OAR 340-228-0658(2)(a)(A) or (B).~~

~~(c) A Hg allowance must not be deducted, for compliance with the requirements under subsection (3)(a) of this rule, for a control period in a calendar year before the year for which the Hg allowance was allocated.~~

~~(d) Hg allowances must be held in, deducted from, or transferred into or among Hg Allowance Tracking System accounts in accordance with OAR 340-228-0652 through 0656.~~

~~(e) A Hg allowance is a limited authorization to emit one ounce of mercury in accordance with the Hg Budget Trading Program. No provision of the Hg Budget Trading Program, the Hg Budget permit application, the Hg Budget permit, or an exemption under OAR 340-228-0605 and no provision of law can be construed to limit the authority of the State or the United States to terminate or limit such authorization.~~

~~(f) A Hg allowance does not constitute a property right.~~

~~(g) Upon recordation by the Administrator under OAR 340-228-0638 through 0656, every allocation, transfer, or deduction of a Hg allowance to or from a Hg Budget unit's compliance account is incorporated automatically in any Hg Budget permit of the source that includes the Hg Budget unit.~~

~~(4) Excess emissions requirements. The following excess emission requirements shall apply to each Hg Budget unit for the control periods of 2010 through 2017.~~

~~(a) If a Hg Budget source emits mercury during any control period in excess of the Hg allowances in the source's compliance account that are available for compliance deduction in the control period, then:~~

~~(A) The owners and operators of the source and each Hg Budget unit at the source must surrender an amount of Hg allowances, allocated for the control period in the immediately following calendar year, equal to 3 times the number of ounces of the source's excess emissions in accordance with OAR 340-228-0644(4)(a) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and~~

~~(B) Each ounce of such excess emissions and each day of such control period constitute a separate violation of the Clean Air Act and applicable State law.~~

(1) Mercury reduction plan. By July 1, 2009 or 1-year prior to commencement of commercial operation, whichever is later, the owner or operator of each coal-fired electric generating unit must develop and submit for Department approval a mercury reduction plan for each coal-fired electric generating unit. The plan must propose a control strategy for mercury that is most likely to result in the capture of at least 90 percent of the mercury emitted from the unit or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input. The owner or operator must demonstrate that the plan reflects technology that could reasonably be expected to meet the limits in this section if the technology operates as anticipated by the manufacturer. The plan must provide a timeframe for implementation of the selected control strategy including major milestones, installation and operation requirements, and work practice standards for the selected technology. The owner and operator of the coal-fired electric generating unit may proceed with the plan within 60 days of submittal unless, within the 60 day period, the Department notifies the owner or operator of the coal-fired electric generating unit that the plan must be revised.

(2) Mercury emission standards. On and after July 1, 2012 or at commencement of commercial startup, whichever is later, except as allowed under section (3) of this rule, each coal-fired electric generating unit must have implemented the approved control strategy projected to achieve at least 90 percent mercury capture or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input.

(3) Compliance extension. Up to a 1-year extension of the requirement to implement the approved control strategy may be granted by the Department if the owner or operator of a coal-fired electric generating unit demonstrates that it is not practical to install mercury control equipment by July 1, 2012

due to supply limitations or other extenuating circumstances that are beyond the control of the owner or operator.
(4) Compliance demonstration. Commencing in July 2013 or 12 months after commercial startup or 12 months after expiration of the extension granted under section (3) of this rule, whichever is later, each coal-fired electric generating unit must thereafter demonstrate compliance with one of the standards in subsections (4)(a) or (4)(b) of this rule for each compliance period, except as allowed under sections (5) and (6) of this rule. A compliance period consists of twelve months. Each month commencing with June 2013 or the twelfth month after commencement of commercial operation or twelfth month after expiration of the extension granted under section (3) of this rule, whichever is later, is the end of a compliance period consisting of that month and the previous 11 months.
(a) A mercury emission standard of 0.60 pounds per trillion BTU of heat input calculated by dividing the Hg mass emissions determined using a mercury CEMS or sorbent trap monitoring system by heat input as determined according to **40 CFR part 75, appendix F (procedure 5)**; or
(b) A minimum 90-percent capture of inlet mercury determined as follows:
(A) Inlet mercury must be determined as specified in subparagraph (4)(b)(A)(i) or (4)(b)(A)(ii) of this rule:
(i) Coal sampling and analysis. To demonstrate compliance by coal sampling and analysis, the owner or operator of a coal-fired electric generating unit must test its coal for mercury consistent with a coal sampling and analysis plan. The coal sampling and analysis plan must be consistent with the requirements of **40 CFR 63.7521**.
(ii) Hg mass emissions prior to any control device(s). To demonstrate compliance by measuring Hg mass emissions, the owner or operator of a coal-fired electric generating unit must measure mercury emissions prior to any control device(s) using a Hg CEMS or sorbent trap.
(B) The mercury capture efficiency must be calculated using the Hg emissions determined using a mercury CEMS or sorbent trap monitoring system and the inlet mercury determined using the coal mercury content data obtained in accordance with subparagraph (4)(b)(A)(i) of this rule or the measured inlet mercury data obtained in accordance with subparagraph (4)(b)(A)(ii) of this rule and a calculation methodology approved by the Department.
(5) Temporary compliance alternative. If the owner or operator of a coal-fired electric generating unit properly implements the approved control strategy and the strategy fails to achieve at least 90 percent mercury capture or limit mercury emissions to 0.60 pounds per trillion BTU of heat input:
(a) The owner or operator must notify the Department of the failure within 30 days of the end of the initial compliance period; and
(b) The owner or operator must file an application with the Department for a permit or permit modification in accordance with OAR 340 division 216 to establish a temporary alternative mercury emission limit. The application must be filed within 60 days of the end of the initial compliance period, and must include a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input and all monitoring and operating data for the coal-fired electric generating unit.
(c) The Department may establish a temporary alternative mercury emission limit only if the owner or operator applies for a permit or permit modification, that includes a control strategy that the Department determines constitutes a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input.
(d) Establishment of a temporary alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category III permit actions

(e) If the owner or operator files an application under subsection (5)(b) of this rule, the coal-fired electric generating unit must operate according to the temporary alternative mercury emission limit proposed in the permit or permit modification application until the Department either denies the application or issues the permit or permit modification. Compliance with the proposed temporary alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (2) of this rule.
(f) A temporary alternative mercury emission limit established in a permit expires July 1, 2015 or within 2 years of commencement of commercial operation, whichever is later.
(6) Permanent compliance alternative. If the owner or operator of a coal-fired electric generating unit is unable to achieve at least 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input by July 1, 2015 or within 2 years of commencement of commercial operation, whichever is later, despite properly implementing the continual program of mercury progression required in section (5) of this rule:
(a) The owner or operator of the coal-fired electric generating unit may file an application with the Department for a permit modification in accordance with OAR 340 division 216 to establish a permanent alternative mercury emission limit that comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.
(b) The Department may establish a permanent alternative mercury emission limit only if the owner or operator applies for a permit modification, that proposes an alternative mercury emission limit that the Department determines comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.
(c) Establishment of a permanent alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category IV permit actions.
(d) If the owner or operator files an application under subsection (6)(a) of this rule, the coal-fired electric generating unit must operate according to the permanent alternative mercury emission limit proposed in the permit modification application until the Department either denies the application or modifies the permit. Compliance with the proposed permanent alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (4) of this rule.
(7) Emission Caps. Beginning in calendar year 2018, the following coal-fired electric generating unit specific emission caps shall apply.
(a) Existing Boardman coal-fired electric generating unit cap. The existing coal-fired electric generating unit in Boardman shall emit no more than:
(A) 60 pounds of mercury in any calendar year in which there are no new coal-fired electric generating units operated in Oregon.
(B) 35 pounds of mercury in any calendar year in which there are new coal-fired electric generating units operated in Oregon.
(b) New coal-fired electric generating unit cap:
(A) New coal-fired electric generating units, in aggregate, shall emit no more than:
(i) 25 pounds of mercury in any calendar year in which the existing coal-fired electric generating unit in Boardman is operated.
(ii) 60 pounds of mercury in any calendar year in which the existing coal-fired electric generating unit in Boardman is not operated.
(B) The owner or operator of each new coal-fired electric generating unit must submit to the Department a request, in a format specified by the Department, to receive a portion of the new coal-fired electric

generating unit cap. The request may not be submitted until the new coal-fired electric generating unit has received its Site Certification from the Facility Siting Council, or if the new coal-fired electric generating unit is not required to obtain a Site Certificate, all governmental approvals necessary to commence construction.

(C) The Department will allocate the new coal-fired electric generating unit cap in order of receipt of requests and, once allocated, the new coal-fired electric generating unit shall be entitled to receive an equal allocation in future years unless the new coal-fired electric generating unit permanently ceases operations.

(D) Each individual new coal-fired electric generating unit shall emit no more than the lesser of:

(i) An amount of mercury determined by multiplying the design heat input in TBtu of such coal-fired electric generating unit by 0.60 pounds per TBtu rounded to the nearest pound as appropriate, or

(ii) The amount of the emission cap under (7)(b) less the amount of the emission cap under (7)(b) that has been allocated to other new coal-fired electric generating units.

(c) Compliance demonstration. Each coal-fired electric generating unit must demonstrate compliance with the applicable calendar year emission cap in subsection (7)(a) or (7)(b) of this rule using a mercury CEMS or sorbent trap monitoring system.

~~(5) Recordkeeping and reporting requirements.~~

~~(a) Unless otherwise provided, the owners and operators of the Hg Budget source and each Hg Budget unit at the source must keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.~~

~~(A) The certificate of representation under OAR 340-228-0618 for the Hg designated representative for the source and each Hg Budget unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents are retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under OAR 340-228-0618 changing the Hg designated representative.~~

~~(B) All emissions monitoring information, in accordance with OAR 340-228-0658 through 0670, provided that to the extent that OAR 340-228-0658 through 0670 provides for a 3-year period for recordkeeping, the 3-year period applies.~~

~~(C) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Hg Budget Trading Program.~~

~~(D) Copies of all documents used to complete a Hg Budget permit application and any other submission under the Hg Budget Trading Program or to demonstrate compliance with the requirements of the Hg Budget Trading Program.~~

~~(b) The Hg designated representative of a Hg Budget source and each Hg Budget unit at the source must submit the reports required under the Hg Budget Trading Program, including those under OAR 340-228-0658 through 0670.~~

~~(6) Liability.~~

~~(a) Each Hg Budget source and each Hg Budget unit must meet the requirements of the Hg Budget Trading Program for the control periods of 2010 through 2017.~~

~~(b) Any provision of the Hg Budget Trading Program that applies to a Hg Budget source or the Hg designated representative of a Hg Budget source also applies to the owners and operators of such source and of the Hg Budget units at the source.~~

~~(c) Any provision of the Hg Budget Trading Program that applies to a Hg Budget unit or the Hg designated representative of a Hg Budget unit also applies to the owners and operators of such unit.~~
~~(7) Effect on other authorities. No provision of the Hg Budget Trading Program, a Hg Budget permit application, a Hg Budget permit, or an exemption under OAR 340-228-0605 must be construed as exempting or excluding the owners and operators, and the Hg designated representative, of a Hg Budget source or Hg Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a Federally enforceable permit, or the CAA.~~
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

Monitoring Requirements

340-228-0609
General Requirements
The owners and operators of a coal-fired electric generating unit must comply with the monitoring, recordkeeping, and reporting requirements as provided in this rule and OAR 340-228-0611 through 0637. For purposes of complying with such requirements, the definitions in OAR 340-228-0602 and in 40 CFR 72.2 shall apply, and the terms "affected unit" and "designated representative" in **40 CFR part 75** shall be deemed to refer to the terms "coal-fired electric generating unit" and "owner or operator" respectively, as defined in OAR 340-228-0602. The owner or operator of a unit that is not a coal-fired electric generating unit but that is monitored under OAR 340-228-0615(2)(a) must comply with the same monitoring, recordkeeping, and reporting requirements as a coal-fired electric generating unit.
(1) Requirements for installation, certification, and data accounting. The owner or operator of each coal-fired electric generating unit must:
(a) Install all applicable monitoring systems required under this rule and OAR 340-228-0611 through 0637 for monitoring Hg mass emissions, inlet Hg (if applicable), and individual unit heat input (including all systems required to monitor Hg concentration, stack gas moisture content, stack gas flow rate, and CO_2 or O_2 concentration, as applicable).
(b) Successfully complete all certification tests required under OAR 340-228-0621 and meet all other requirements of this rule and OAR 340-228-0611 through 0637 applicable to the monitoring systems under subsection (1)(a) of this rule.
(c) The owner or operator must reduce all volumetric flow, CO_2 concentration or O_2 concentration, as applicable, and Hg concentration data collected by the monitors to hourly averages.
(d) Record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule.
(e) Failure of a CO_2 or O_2 emissions concentration monitor, Hg concentration monitor, flow monitor, or moisture monitor to acquire the minimum number of data points for calculation of an hourly average shall result in the failure to obtain a valid hour of data and the loss of such component data for the entire hour.
(2) Compliance deadlines. The owner or operator must meet the monitoring system certification and other requirements of section (1) of this rule on or before the following dates. The owner or operator must record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule on and after the following dates.
(a) Outlet Hg.

(A) For the owner or operator of a coal-fired electric generating unit that commences commercial operation before July 1, 2008, by January 1, 2009.
(B) For the owner or operator of a coal-fired electric generating unit that commences commercial operation on or after July 1, 2008, by the later of the following dates:
(i) January 1, 2009; or
(ii) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation.
(C) For the owner or operator of a coal-fired electric generating unit for which construction of a new stack or flue or installation of add-on Hg emission controls, a flue gas desulfurization system, a selective catalytic reduction system, or a compact hybrid particulate collector system is completed after the applicable deadline under paragraph (2)(a)(A) or (B) of this rule, by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack or flue, add-on Hg emissions controls, flue gas desulfurization system, selective catalytic reduction system, or compact hybrid particulate collector system.
(b) Heat input. For monitoring systems used to monitor heat input in accordance with OAR 340-228-0606(4)(a), if applicable, by the later of the following dates:
(A) July 1, 2012 or the date established under OAR 340-228-0606(3); or
(B) The date on which the unit commences commercial operation.
(c) Inlet Hg. If required to perform coal sampling and analysis in accordance with OAR 340-228-0606(4)(b)(A)(i) or measure Hg emission prior to any control device(s) in accordance with OAR 340-228-0606(4)(b)(A)(ii), if applicable, by the later of the following dates:
(A) July 1, 2012 or the date established under OAR 340-228-0606(3); or
(B) The date on which the unit commences commercial operation.
(3) Reporting data.
(a) Except as provided in subsection (3)(b) of this rule, the owner or operator of a coal-fired electric generating unit that does not meet the applicable compliance date set forth in section (2) of this rule for any monitoring system under subsection (1)(a) of this rule must, for each monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for Hg concentration, stack gas flow rate, stack gas moisture content, and any other parameters required to determine Hg mass emissions and heat input in accordance with OAR 340-228-0637(5).
(b) The owner or operator of a coal-fired electric generating unit that does not meet the applicable compliance date set forth in paragraph (2)(a)(C) of this rule for any monitoring system under subsection (1)(a) must, for each such monitoring system, determine, record, and report substitute data using the applicable missing data procedures in **40 CFR part 75 subpart D**, OAR 340-228-0631, and OAR 340-228-0633, in lieu of the maximum potential (or, as appropriate, minimum potential) values, for a parameter if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation under subsection (2)(a)(C) of this rule.
(4) Prohibitions.
(a) No owner or operator of a coal-fired electric generating unit shall use any alternative monitoring system, alternative reference method, or any other alternative to any requirement of this rule and OAR 340-228-0611 through 0637 without having obtained prior written approval.
(b) No owner or operator of a coal-fired electric generating unit shall operate the unit so as to discharge, or allow to be discharged, Hg emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this rule and, OAR 340-228-0611 through 0637.

(c) No owner or operator of a coal-fired electric generating unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording Hg mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this rule and, OAR 340-228-0611 through 0637.
(d) No owner or operator of a coal-fired electric generating unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved emission monitoring system under this rule, except under any one of the following circumstances:
(A) The owner or operator is monitoring Hg mass emissions from the coal-fired electric generating unit with another certified monitoring system approved, in accordance with the applicable provisions of this rule, and OAR 340-228-0611 through 0637, by the Department for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or
(B) The owner or operator submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with OAR 340-228-0621(3)(c)(A).

340-228-0611
Additional Requirements to Provide Heat Input Data
The owner or operator of a coal-fired electric generating unit that monitors and reports Hg mass emissions using a Hg concentration monitoring system and a flow monitoring system must also monitor and report heat input rate at the unit level using the procedures set forth in **40 CFR part 75, appendix F (procedure 5).**

340-228-0613
Monitoring of Hg Mass Emissions and Heat Input at the Unit Level
The owner or operator of the affected coal-fired electric generating unit must meet the general operating requirements in **40 CFR 75.10** for the following continuous emission monitors (except as provided in accordance with **40 CFR part 75 subpart E**):
(1) A Hg concentration monitoring system (as defined in OAR 340-228-0602) or a sorbent trap monitoring system (as defined in OAR 340-228-0602) to measure Hg concentration; and
(2) A flow monitoring system; and
(3) A continuous moisture monitoring system (if correction of Hg concentration for moisture is required), as described in **40 CFR 75.11(b)**. Alternatively, the owner or operator may use the appropriate fuel-specific default moisture value provided in **40 CFR 75.11 or 75.12**, or a site-specific moisture value approved by the Department; and
(4) If heat input is required to be reported, the owner or operator also must meet the general operating requirements for a flow monitoring system and an O2 or CO2 monitoring system to measure heat input rate.

340-228-0615
Monitoring of Hg Mass Emissions and Heat Input at Common and Multiple Stacks
(1) Unit utilizing common stack with other coal-fired electric generating unit(s). When a coal-fired electric generating unit utilizes a common stack with one or more coal-fired electric generating units, but no non coal-fired electric generating units, the owner or operator must either:

(a) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 at the common stack and record the combined Hg mass emissions for the units exhausting to the common stack. If reporting of the unit heat input rate is required, determine the hourly unit heat input rates either by:
(A) Apportioning the common stack heat input rate to the individual units according to the procedures in **40 CFR 75.16(e)(3)**; or
(B) Installing, certifying, operating, and maintaining a flow monitoring system and diluent monitor in the duct to the common stack from each unit; or
(b) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in the duct to the common stack from each unit.
(2) Unit utilizing common stack with non coal-fired electric generating unit(s). When one or more coal-fired electric generating units utilize a common stack with one or more non coal-fired electric generating units, the owner or operator must either:
(a) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in the duct to the common stack from each coal-fired electric generating unit; or
(b) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 in the common stack; and
(A) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in the duct to the common stack from each non coal-fired electric generating unit. The owner or operator must submit a petition to the Department to allow a method of calculating and reporting the Hg mass emissions from the coal-fired electric generating units as the difference between Hg mass emissions measured in the common stack and Hg mass emissions measured in the ducts of the non coal-fired electric generating units, not to be reported as an hourly value less than zero. The Department may approve such a method whenever the owner or operator demonstrates, to the satisfaction of the Department, that the method ensures that the Hg mass emissions from the coal-fired electric generating units are not underestimated; or
(B) Count the combined emissions measured at the common stack as the Hg mass emissions for the coal-fired electric generating units, for recordkeeping and compliance purposes, in accordance with section (1) of this rule; or
(C) Submit a petition to the Department to allow use of a method for apportioning Hg mass emissions measured in the common stack to each of the units using the common stack and for reporting the Hg mass emissions. The Department may approve such a method whenever the owner or operator demonstrates, to the satisfaction of the Department, that the method ensures that the Hg mass emissions from the coal-fired electric generating units are not underestimated.
(c) If the monitoring option in subsection (2)(b) of this rule is selected, and if heat input is required to be reported, the owner or operator must either:
(A) Apportion the common stack heat input rate to the individual units according to the procedures in **40 CFR 75.16(e)(3)**; or
(B) Install a flow monitoring system and a diluent gas (O2 or CO2) monitoring system in the duct leading from each affected unit to the common stack, and measure the heat input rate in each duct, according to section 5.2 of **appendix F to 40 CFR part 75.**
(3) Unit with a main stack and a bypass stack. Whenever any portion of the flue gases from a coal-fired electric generating unit can be routed through a bypass stack to avoid the Hg monitoring system(s) installed on the main stack, the owner and operator must either:

(a) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 on both the main stack and the bypass stack and calculate Hg mass emissions for the unit as the sum of the Hg mass emissions measured at the two stacks;
(b) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 at the main stack and measure Hg mass emissions at the bypass stack using the appropriate reference methods in OAR 340-228-0602(33) or in **40 CFR 75.22**. Calculate Hg mass emissions for the unit as the sum of the emissions recorded by the installed monitoring systems on the main stack and the emissions measured by the reference method monitoring systems;
(c) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 only on the main stack. If this option is chosen, it is not necessary to designate the exhaust configuration as a multiple stack configuration in the monitoring plan required under **40 CFR 75.53** and OAR 340-228-0637(2), since only the main stack is monitored. For each unit operating hour in which the bypass stack is used, report, as applicable, the maximum potential Hg concentration (as defined in OAR 340-228-0602(25)), and the appropriate substitute data values for flow rate, CO2 concentration, O2 concentration, and moisture (as applicable), in accordance with the missing data procedures of OAR 340-228-0631 and 0633, as applicable; or
(d) If the monitoring option in subsection (3)(a) or (b) of this rule is selected, and if heat input is required to be reported, the owner or operator must:
(A) Use the installed flow and diluent monitors to determine the hourly heat input rate at each stack (MMBtu/hr), according to section 5.2 of **appendix F to 40 CFR part 75**; and
(B) Calculate the hourly heat input at each stack (in MMBtu) by multiplying the measured stack heat input rate by the corresponding stack operating time; and
(C) Determine the hourly unit heat input by summing the hourly stack heat input values.
(4) Unit with multiple stack or duct configuration. When the flue gases from a coal-fired electric generating unit discharge to the atmosphere through more than one stack, or when the flue gases from a coal-fired electric generating unit utilize two or more ducts feeding into a single stack and the owner or operator chooses to monitor in the ducts rather than in the stack, the owner or operator must either:
(a) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in each of the multiple stacks and determine Hg mass emissions from the coal-fired electric generating unit as the sum of the Hg mass emissions recorded for each stack. If another unit also exhausts flue gases into one of the monitored stacks, the owner or operator must comply with the applicable requirements of sections (1) and (2) of this rule, in order to properly determine the Hg mass emissions from the units using that stack;
(b) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in each of the ducts that feed into the stack, and determine Hg mass emissions from the coal-fired electric generating unit using the sum of the Hg mass emissions measured at each duct, except that where another unit also exhausts flue gases to one or more of the stacks, the owner or operator must also comply with the applicable requirements of sections (1) and (2) of this rule to determine and record Hg mass emissions from the units using that stack. The owner or operator must calculate Hg mass emissions and heat input rate in accordance with approved procedures; or
(c) If the monitoring option in subsection (4)(a) or (b) of this rule is selected, and if heat input is required to be reported, the owner or operator must:
(A) Use the installed flow and diluent monitors to determine the hourly heat input rate at each stack or duct (MMBtu/ hr), according to section 5.2 of **appendix F to 40 CFR part 75**; and

(B) Calculate the hourly heat input at each stack or duct (in MMBtu) by multiplying the measured stack (or duct) heat input rate by the corresponding stack (or duct) operating time; and
(C) Determine the hourly unit heat input by summing the hourly stack (or duct) heat input values.

340-228-0617
Special Provisions for Measuring Hg Mass Emissions using the Sorbent Trap Monitoring Methodology
For an affected coal-fired electric generating unit, if the owner or operator elects to use sorbent trap monitoring systems to quantify Hg mass emissions, the guidelines in sections (1) through (11) of this rule must be followed for this monitoring methodology:
(1) For each sorbent trap monitoring system (whether primary or redundant backup), the use of paired sorbent traps, as described in OAR 340-228-0627, is required.
(2) Each sorbent trap must have both a main section, a backup section, and a third section to allow spiking with a calibration gas of known Hg concentration, as described in OAR 340-228-0627.
(3) A certified flow monitoring system is required.
(4) Correction for stack gas moisture content is required, and in some cases, a certified O_2 or CO_2 monitoring system is required.
(5) Each sorbent trap monitoring system must be installed and operated in accordance with OAR 340-228-0627. The automated data acquisition and handling system must ensure that the sampling rate is proportional to the stack gas volumetric flow rate.
(6) At the beginning and end of each sample collection period, and at least once in each unit operating hour during the collection period, the dry gas meter reading must be recorded.
(7) After each sample collection period, the mass of Hg adsorbed in each sorbent trap (in all three sections) must be determined according to the applicable procedures in OAR 340-228-0627.
(8) The hourly Hg mass emissions for each collection period are determined using the results of the analyses in conjunction with contemporaneous hourly data recorded by a certified stack flow monitor, corrected for the stack gas moisture content. For each pair of sorbent traps analyzed, the average of the two Hg concentrations must be used for reporting purposes under OAR 340-228-0637(4). Notwithstanding this requirement, if, due to circumstances beyond the control of the owner or operator, one of the paired traps is accidentally lost, damaged, or broken and cannot be analyzed, the results of the analysis of the other trap may be used for reporting purposes, provided that:
(a) The other trap has met all of the applicable quality-assurance requirements; and
(b) The Hg concentration measured by the other trap is multiplied by a factor of 1.111.
(9) All unit operating hours for which valid Hg concentration data are obtained with the primary sorbent trap monitoring system (as verified using the quality assurance procedures in OAR 340-228-0627) must be reported in the quarterly report under OAR 340-228-0637(4). For hours in which data from the primary monitoring system are invalid, the owner or operator may report valid Hg concentration data from a certified redundant backup CEMS or sorbent trap monitoring system or from an applicable reference method under OAR 340-228-0602(33) or **40 CFR 75.22**. If no quality-assured Hg concentration is available for a particular hour, the owner or operator must report the appropriate substitute data value in accordance with OAR 340-228-0633.
(10) Initial certification requirements and additional quality-assurance requirements for the sorbent trap monitoring systems are found in OAR 340-228-0627.
(11) Whenever the type of sorbent material used by the traps is changed, the owner or operator must conduct a diagnostic RATA of the modified sorbent trap monitoring system within 720 unit or stack

operating hours after the date and hour when the new sorbent material is first used. If the diagnostic RATA is passed, data from the modified system may be reported as quality-assured, back to the date and hour when the new sorbent material was first used. If the RATA is failed, all data from the modified system shall be invalidated, back to the date and hour when the new sorbent material was first used, and data from the system shall remain invalid until a subsequent RATA is passed. If the required RATA is not completed within 720 unit or stack operating hours, but is passed on the first attempt, data from the modified system shall be invalidated beginning with the first operating hour after the 720 unit or stack operating hour window expires and data from the system shall remain invalid until the date and hour of completion of the successful RATA.

340-228-0619
Procedures for Hg Mass Emissions
(1) Use the procedures in this rule to calculate the hourly Hg mass emissions (in pounds) at each monitored location, for the affected unit or group of units that discharge through a common stack.
(a) To determine the hourly Hg mass emissions when using a Hg concentration monitoring system that measures on a wet basis and a flow monitor, use the following equation:

$Mh = K \times Ch \times Qh \times th$

Where:
Mh = Hg mass emissions for the hour, rounded off to three decimal places, (pounds).
K = Units conversion constant, 6.236×10^{-11} lb-m3/µg-scf
Ch = Hourly Hg concentration, wet basis, adjusted for bias if the bias-test procedures show that a bias-adjustment factor is necessary, (µg/wscm).
Qh = Hourly stack gas volumetric flow rate, adjusted for bias, where the bias-test procedures show a bias-adjustment factor is necessary, (scfh)
th = Unit or stack operating time, as defined in **40 CFR 72.2**, (hr)
(b) To determine the hourly Hg mass emissions when using a Hg concentration monitoring system that measures on a dry basis or a sorbent trap monitoring system and a flow monitor, use the following equation:

$Mh = K \times Ch \times Qh \times th \times (1-Bws)$

Where:
Mh = Hg mass emissions for the hour, rounded off to three decimal places, (pounds).
K = Units conversion constant, 6.236×10^{-11} lb-m3/µg-scf
Ch = Hourly Hg concentration, dry basis, adjusted for bias if the bias-test procedures show that a bias-adjustment factor is necessary, (µg/dscm). For sorbent trap systems, a single value of Ch (i.e., a flow proportional average concentration for the data collection period), is applied to each hour in the data collection period, for a particular pair of traps.
Qh = Hourly stack gas volumetric flow rate, adjusted for bias, where the bias-test procedures show a bias-adjustment factor is necessary, (scfh)
Bws = Moisture fraction of the stack gas, expressed as a decimal (equal to % H2O 100)
th = Unit or stack operating time, as defined in **40 CFR 72.2**, (hr)

(2) Use equation 1 to this division to calculate quarterly, year-to-date, and 12-month total Hg mass emissions in pounds.
(3) If heat input rate monitoring is required, follow the applicable procedures for heat input apportionment and summation in sections 5.3, 5.6 and 5.7 of **appendix F to 40 CFR part 75.**

Monitoring Certification

340-228-0621
Initial Certification and Recertification Procedures
(1) The owner or operator of a coal-fired electric generating unit shall be exempt from the initial certification requirements of this rule for a monitoring system under OAR 340-228-0609(1)(a) if the following conditions are met:
(a) The monitoring system has been previously certified; and
(b) The applicable quality-assurance and quality-control requirements are fully met for the certified monitoring system described in subsection (1)(a) of this rule.
(2) The recertification provisions of this rule shall apply to a monitoring system under OAR 340-228-0609(1)(a) exempt from initial certification requirements under section (1) of this rule.
(3) Initial certification and recertification procedures. Except as provided in section (1) of this rule, the owner or operator of a coal-fired electric generating unit must comply with the following initial certification and recertification procedures for a continuous monitoring system (e.g., a continuous emission monitoring system or sorbent trap monitoring system). The owner or operator must meet any additional requirements for Hg concentration monitoring systems, sorbent trap monitoring systems (as defined in OAR 340-228-0602(36)), flow monitors, CO2 monitors, O2 monitors, or moisture monitors, as set forth under OAR 340-228-0613, under the common stack provisions in OAR 340-228-0615. The owner or operator of a unit that qualifies to use an alternative monitoring system must comply with the procedures in section (4) of this rule.
(a) Requirements for initial certification. The owner or operator must ensure that each monitoring system under OAR 340-228-0609(1)(a) (including the automated data acquisition and handling system) successfully completes all of the initial certification testing by the applicable deadline in OAR 340-228-0609(2). In addition, whenever the owner or operator installs a monitoring system to meet the requirements of this rule in a location where no such monitoring system was previously installed, initial certification is required.
(b) Requirements for recertification. Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system or sorbent trap monitoring system that may significantly affect the ability of the system to accurately measure or record the CO2 concentration, stack gas volumetric flow rate, Hg concentration, Hg mass emissions, percent moisture, or heat input rate or to meet the quality-assurance and quality-control requirements of **40 CFR 75.21**, OAR 340-228-0623, or **appendix B to 40 CFR part 75**, the owner or operator must recertify the monitoring system in accordance with **40 CFR 75.20(b)**. Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator must recertify each continuous emission monitoring system or sorbent trap monitoring system, whose accuracy is potentially affected by the change, in accordance with **40 CFR 75.20(b)**. Examples of changes to a continuous emission monitoring system that require recertification include replacement of the analyzer,

complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site.
(c) Approval process for initial certification and recertification. Paragraphs (3)(c)(A) through (D) of this rule apply to both initial certification and recertification of a continuous monitoring system under OAR 340-228-0609(1)(a). For recertifications, apply the word "recertification" instead of the words "certification" and "initial certification" and apply the word "recertified" instead of the word "certified," and follow the procedures in **40 CFR 75.20(b)(5)** in lieu of the procedures in paragraph (3)(c)(E) of this rule.
(A) Notification of certification. The owner or operator must submit to the Department written notice of the dates of certification testing, in accordance with **40 CFR 75.61**.
(B) Certification application. The owner or operator must submit to the Department a certification application for each monitoring system. A complete certification application must include the information specified in **40 CFR 75.63**.
(C) Provisional certification date. The provisional certification date for a monitoring system must be determined in accordance with **40 CFR 75.20(a)(3)**. A provisionally certified monitoring system may be used for a period not to exceed 120 days after receipt by the Department of the complete certification application for the monitoring system under paragraph (3)(c)(B) of this rule. Data measured and recorded by the provisionally certified monitoring system will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the Department does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of the date of receipt of the complete certification application by the Department.
(D) Certification application approval process. The Department will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application under paragraph (3)(c)(B) of this rule. In the event the Department does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements and is included in the certification application will be deemed certified for use.
(i) Approval notice. If the certification application is complete and shows that each monitoring system meets the applicable performance requirements, then the Department will issue a written notice of approval of the certification application within 120 days of receipt.
(ii) Incomplete application notice. If the certification application is not complete, then the Department will issue a written notice of incompleteness that sets a reasonable date by which the owner or operator must submit the additional information required to complete the certification application. If the owner or operator does not comply with the notice of incompleteness by the specified date, then the Department may issue a notice of disapproval under subparagraph (3)(c)(D)(iii) of this rule. The 120-day review period must not begin before receipt of a complete certification application.
(iii) Disapproval notice. If the certification application shows that any monitoring system does not meet the performance requirements or if the certification application is incomplete and the requirement for disapproval under subparagraph (3)(c)(D)(ii) of this rule is met, then the Department will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the Department and the data measured and recorded by each uncertified monitoring system must not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under **40 CFR 75.20(a)(3)**). The owner or operator must follow the procedures for loss of certification in paragraph (3)(c)(E) of this rule for each monitoring system that is disapproved for initial certification.

(iv) Audit decertification. The Department may issue a notice of disapproval of the certification status of a monitor in accordance with OAR 340-228-0629(2).
(E) Procedures for loss of certification. If the Department issues a notice of disapproval of a certification application under subparagraph (3)(c)(D)(iii) of this rule or a notice of disapproval of certification status under subparagraph (3)(c)(D)(iv) of this rule, then:
(i) The owner or operator must substitute the following values, as applicable, for each disapproved monitoring system, for each hour of unit operation during the period of invalid data specified under **40 CFR 75.20(a)(4)(iii), 40 CFR 75.21(e)** and continuing until such time, date, and hour as the continuous emission monitoring system can be adjusted, repaired, or replaced and certification tests successfully completed (or, if the conditional data validation procedures in **40 CFR 75.20(b)(3)(ii) through (ix)** are used, until a probationary calibration error test is passed following corrective actions in accordance with **40 CFR 75.20(b)(3)(ii)**):
(I) For a disapproved Hg pollutant concentration monitor and disapproved flow monitor, respectively, the maximum potential Hg concentration, as defined in OAR 340-228-0602(25), and the maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A to 40 CFR part 75**; and
(II) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO_2 concentration or the minimum potential O_2 concentration (as applicable), as defined in sections 2.1.5, 2.1.3.1, and 2.1.3.2 of **appendix A to 40 CFR part 75.**
(III) For a disapproved sorbent trap monitoring system and disapproved flow monitor, respectively, the maximum potential Hg concentration, as defined in OAR 340-228-0602(25), and maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A to 40 CFR part 75.**
(ii) The owner or operator must submit a notification of certification retest dates as specified in **40 CFR 75.61(a)(1)(ii)** and a new certification application in accordance with paragraphs (3)(c)(A) and (B) of this rule.
(iii) The owner or operator must repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.
(d) For each Hg concentration monitoring system, the owner or operator must perform the following tests for initial certification or recertification of a Hg continuous emission system:
(A) A 7-day calibration error test in accordance with section 6.3 of **appendix A to 40 CFR part 75.** The owner or operator may perform this test using either NIST-traceable elemental Hg standards, a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. The calibration error of a Hg concentration monitor must not deviate from the reference value of either the zero or upscale calibration gas by more than 5.0 percent of the span value, as calculated using Equation A–5 of **appendix A to 40 CFR part 75.** Alternatively, if the span value is 10 µg/m3, the calibration error test results are also acceptable if the absolute value of the difference between the monitor response value and the reference value, |R–A| in Equation A–5 of **appendix A to 40 CFR part 75**, is $\leq$ 1.0 µg/m3. If moisture is added to the calibration gas, the added moisture must be accounted for and the dry-basis concentration of the calibration gas must be used to calculate the calibration error.
(B) A linearity check in accordance with section 6.2 of **appendix A to 40 CFR part 75.** Design and equip each mercury monitor to permit the introduction of known concentrations of elemental Hg and $HgCl_2$ separately, at a point immediately preceding the sample extraction filtration system, such that the entire measurement system can be checked. If the Hg monitor does not have a converter, the $HgCl_2$

injection capability is not required. Follow the applicable procedures in section 6.2 of **appendix A to 40 CFR part 75** when performing the 3-level system integrity checks described in paragraph (3)(d)(F) of this rule. Perform the linearity check using NIST-traceable elemental Hg standards and the 3-level system integrity checks using NIST-traceable source of oxidized Hg or ~~,~~other NIST-traceable standards subject to the approval of the Department. If moisture is added to the calibration gas during the required linearity checks or system integrity checks, the moisture content of the calibration gas must be accounted for. Under these circumstances, the dry basis concentration of the calibration gas must be used to calculate the linearity error or measurement error (as applicable).

(C) A relative accuracy test audit (RATA) in accordance with section 6.5 of **appendix A to 40 CFR part 75** and as follows:

(i) The RATA must be performed on a µg/m3 basis and while the unit is combusting coal.

(ii) Calculate the relative accuracy, in accordance with section 7.3 or 7.4 of **appendix A to 40 CFR part 75**, as applicable.

(iii) The relative accuracy shall not exceed 20.0 percent. Alternatively, for affected units where the average of the reference method measurements of Hg concentration during the relative accuracy test audit is less than 5.0 µg/m3, the test results are acceptable if the difference between the mean value of the monitor measurements and the reference method mean value does not exceed 1.0 µg/m3, in cases where the relative accuracy specification of 20.0 percent is not achieved.

(iv) For the RATA of a Hg CEMS using the Ontario Hydro Method, or for the RATA of a sorbent trap system (irrespective of the reference method used), the time per run must be long enough to collect a sufficient mass of Hg to analyze. For the RATA of a sorbent trap monitoring system, use the same-size trap that is used for daily operation of the monitoring system. Spike the third section of each sorbent trap with elemental Hg, as described in OAR 340-228-0627(7)(a)(B). Install a new pair of sorbent traps prior to each test run. For each run, the sorbent trap data must be validated according to the quality assurance criteria in OAR 340-228-0627(8).

(v) Use the same basic approach for traverse point selection that is used for other gas monitoring system RATAs, except that the stratification test provisions in sections 8.1.3 through 8.1.3.5 of Method 30A shall apply, rather than the provisions of section 6.5.6.1 through 6.5.6.3 of **appendix A to 40 CFR part 75**.

(vi) Up to 336 consecutive unit or stack operating hours may be taken to complete the RATA of a Hg monitoring system, when the Ontario Hydro Method or Method 29 is used as the reference method.

(D) A bias test in accordance with section 7.6 of **appendix A to 40 CFR part 75** and as follows:

(i) To calculate bias for a Hg monitoring system when using the Ontario Hydro Method or Method 29, "d" is, for each data point, the difference between the average Hg concentration value (in µg/m3) from the paired Ontario Hydro or Method 29 sampling trains and the concentration measured by the monitoring system. For sorbent trap systems, use the average Hg concentration measured by the paired traps in calculation of "d".

(ii) For single-load RATAs of Hg concentration monitoring systems, and sorbent trap monitoring systems, the appropriate BAF is determined directly from the RATA results at normal load, using Equation A–12.

(iii) For multiple-load flow RATAs, perform a bias test at each load level designated as normal under section 6.5.2.1 of **appendix A to 40 CFR part 75**.

(iv) Mercury concentration monitoring systems and sorbent trap monitoring systems shall not be biased low.

(v) For Hg concentration and sorbent trap monitoring systems, where the average Hg concentration during the RATA is < 5.0 µg/dscm, if the monitoring system meets the normal or the alternative relative accuracy specification in subparagraph (3)(d)(C)(iii) of this rule but fails the bias test, the owner or operator may either use the bias adjustment factor (BAF) calculated from Equation A–12 **appendix A to 40 CFR part 75** and in accordance with sections 7.6.4 and 7.6.5 of **appendix A to 40 CFR part 75,** using the data from the relative accuracy test audits, or may use a default BAF of 1.250 for reporting purposes.

(vi) Use the bias-adjusted values in computing substitution values in the missing data procedure and in reporting the concentration of Hg during the quarter and calendar year. In addition, when using a Hg concentration or sorbent trap monitoring system and a flow monitor to calculate Hg mass emissions, use bias-adjusted values for Hg concentration and flow rate in the mass emission calculations and use bias-adjusted Hg concentrations to compute the appropriate substitution values for Hg concentration in the missing data routines.

(E) A cycle time test in accordance to section 6.4 of **appendix A to 40 CFR part 75.** For Hg monitors, the calibration gas used for this test may either be the elemental or oxidized form of Hg. As an alternative, the reading is considered stable if it changes by no more than 0.5 µg/m3 for two minutes.

(F) A 3-level system integrity check, using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. This test is not required for an Hg monitor that does not have a converter. The system measurement error must not exceed 10.0 percent of the reference value at any of the three gas levels. To calibrate the measurement error at each level, take the absolute value of the difference between the reference value and mean CEM response, divide the result by the reference value, and then multiply by 100. Alternatively, the results at any gas level are acceptable if the absolute value of the difference between the average monitor response and the average reference value, i.e., |R–A| in equation A–4 of **appendix A to 40 CFR part 75**, does not exceed 0.8 µg/m3.

(4) Certification/recertification procedures for alternative monitoring systems. The owner or operator of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Department must comply with the applicable notification and application procedures of **40 CFR 75.20(f).**

Monitoring Quality Assurance/Quality Control

340-228-0623

Quality Assurance and Quality Control Requirements

(1) For units that use continuous emission monitoring systems to account for Hg mass emissions, the owner or operator must meet the applicable quality assurance and quality control requirements in **40 CFR 75.21, appendix B to 40 CFR part 75**, and as follows, for the flow monitoring systems, Hg concentration monitoring systems, moisture monitoring systems, and diluent monitors required under OAR 340-228-0613. Units using sorbent trap monitoring systems must meet the applicable quality assurance requirements in OAR 340-228-0617, 340-228-0627, and as follows.

(a) Calibration Error Test. Except as provided in section 2.1.1.2 of **appendix B to 40 CFR part 75,** perform the daily calibration error test of each Hg monitoring system according to the procedures in OAR 340-228-0621(3)(d)(A). For Hg monitors, the daily assessments may be made using either NIST-traceable elemental Hg standards, a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department.

(b) Data Validation. For a Hg monitor, an out-of-control period occurs when the calibration error exceeds 5.0% of the span value. Notwithstanding, the Hg monitor shall not be considered out-of-control if |R–A| in Equation A–6 of **appendix A to 40 CFR part 75** does not exceed 1.0 µg/m3.

(c) Linearity Check. Unless a particular monitor (or monitoring range) is exempted under this subsection or under section 6.2 of **appendix A to 40 CFR part 75**, perform a linearity check, in accordance with the procedures in section 6.2 of **appendix A to 40 CFR part 75**, for each primary and redundant backup Hg at least once during each QA operating quarter, as defined in **40 CFR 72.2**. For Hg monitors, perform the linearity checks using NIST-traceable elemental Hg standards, or other NIST-traceable standards subject to the approval of the Department. Alternatively, the owner or operator may perform 3-level system integrity checks at the same three calibration gas levels (*i.e.*, low, mid, and high), using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. If choosing this option, the performance specification in paragraph (1)(i)(B) of this rule must be met at each gas level. For units using both a low and high span value, a linearity check is required only on the range(s) used to record and report emission data during the QA operating quarter. Conduct the linearity checks no less than 30 days apart, to the extent practicable.

(d) Standard RATA Frequencies. For each primary and redundant backup Hg concentration monitoring system and each sorbent trap monitoring system, RATAs must be performed annually, i.e., once every four successive QA operating quarters (as defined in **40 CFR 72.2**).

(e) RATA Load (or Operating) Levels and Additional RATA Requirements. For Hg concentration monitoring systems and sorbent trap monitoring systems, the required semiannual or annual RATA tests must be done at the load level (or operating level) designated as normal under section 6.5.2.1(d) of **appendix A to 40 CFR part 75**. If two load levels (or operating levels) are designated as normal, the required RATA(s) may be done at either load level (or operating level).

(f) Data Validation. Each time that a hands-off RATA of a Hg concentration monitoring system or a sorbent trap monitoring system is passed, perform a bias test in accordance with section 7.6.4 of **appendix A to 40 CFR part 75**. Apply the appropriate bias adjustment factor to the reported Hg data, in accordance with subsection (1)(g) of this rule.

(g) Bias Adjustment Factor. Except as otherwise specified in section 7.6.5 of **appendix A to 40 CFR part 75**, if an Hg concentration monitoring system or sorbent trap monitoring system fails the bias test, use the bias adjustment factor given in Equations A–11 and A–12 of **appendix A to 40 CFR part 75**, or a default bias adjustment factor of 1.250, to adjust the monitored data.

(h) Bias Adjusted Values. Use the bias-adjusted values in computing substitution values in the missing data procedure and in reporting the concentration of Hg during the quarter and calendar year. In addition, when using a Hg concentration or sorbent trap monitoring system and a flow monitor to calculate Hg mass emissions, use bias-adjusted values for Hg concentration and flow rate in the mass emission calculations and use bias-adjusted Hg concentrations to compute the appropriate substitution values for Hg concentration in the missing data routines.

(i) System Integrity Checks for Hg Monitors. For each Hg concentration monitoring system (except for a Hg monitor that does not have a converter), perform a single-point system integrity check weekly, i.e., at least once every 168 unit or stack operating hours, using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. Perform this check as follows using a mid- or high-level gas concentration, as defined in section 5.2 of **appendix A to 40 CFR part 75.**

(A) The performance specification in paragraph (1)(i)(B) must be met, otherwise the monitoring system is considered out-of-control, from the hour of the failed check until a subsequent system integrity check

is passed. If a required system integrity check is not performed and passed within 168 unit or stack operating hours of last successful check, the monitoring system shall also be considered out of control, beginning with the 169th unit of stack operating hour after the last successful check, and continuing until a subsequent system integrity check is passed. This weekly check is not required if the daily calibration assessments in subsection (1)(a) of this rule are performed using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department.
(B) The measurement error for the linearity check must not exceed 10.0 percent of the reference value at any of the three gas levels.; To calibrate the measurement error at each level, take the absolute value of the difference between the reference value and mean CEM response, divide the result by the reference value, and then multiply by 100. Alternatively, the results at any gas level are acceptable if the absolute value of the difference between the average monitor response and the average reference value, i.e., |R–A| in equation A–4 of **appendix A to 40 CFR part 75**, does not exceed 0.8 µg/m3.
(2) Missing data procedures. Except as provided in OAR 340-228-0617(11) and 340-228-0631(2), the owner or operator must provide substitute data from monitoring systems required under OAR 340-228-0613 for each affected unit as follows:
(a) For an owner or operator using an Hg concentration monitoring system, substitute for missing data in accordance with the applicable missing data procedures in **40 CFR 75.31 through 75.37** and OAR 340-228-0631 and 0633 whenever the unit combusts fuel and:
(A) A valid, quality-assured hour of Hg concentration data (in µg/m3) has not been measured and recorded, either by a certified Hg concentration monitoring system, by an appropriate reference method under OAR 340-228-0602(33) or **40 CFR 75.22**, or by an approved alternative monitoring method under **40 CFR part 75 subpart E**; or
(B) A valid, quality-assured hour of flow rate data (in scfh) has not been measured and recorded for a unit either by a certified flow monitor, by an appropriate EPA reference method under **40 CFR 75.22**, or by an approved alternative monitoring system under **40 CFR part 75 subpart E**; or
(C) A valid, quality-assured hour of moisture data (in percent H2O) has not been measured or recorded for an affected unit, either by a certified moisture monitoring system, by an appropriate EPA reference method under **40 CFR 75.22**, or an approved alternative monitoring method under **40 CFR part 75 subpart E**. This requirement does not apply when a default percent moisture value, as provided in **40 CFR 75.11(b)**, is used to account for the hourly moisture content of the stack gas, or when correction of the Hg concentration for moisture is not necessary; or
(D) A valid, quality-assured hour of heat input rate data (in MMBtu/hr) has not been measured and recorded for a unit, either by certified flow rate and diluent (CO_2 or O_2) monitors, by appropriate EPA reference methods under **40 CFR 75.22**, or by approved alternative monitoring systems under **40 CFR part 75 subpart E**.
(b) For an owner or operator using a sorbent trap monitoring system to quantify Hg mass emissions, substitute for missing data in accordance with the missing data procedures in OAR 340-228-0633.

CEMS Performance Specifications

340-228-0625
Specifications and Test Procedures for Total Vapor Phase Mercury CEMS
(1) Analyte. Mercury (Hg), CAS No. 7439-97-6.
(2) Applicability.

(a) This specification is for evaluating the acceptability of total vapor phase Hg CEMS installed on the exit gases from fossil fuel fired boilers at the time of or soon after installation and whenever specified in the regulations. The Hg CEMS must be capable of measuring the total concentration in µg/m3 (regardless of speciation) of vapor phase Hg, and recording that concentration on a wet or dry basis.
(b) Particle bound Hg is not included in the measurements.
(c) This specification is not designed to evaluate an installed CEMS's performance over an extended period of time nor does it identify specific calibration techniques and auxiliary procedures to assess the CEMS's performance. The source owner or operator, however, is responsible to calibrate, maintain, and operate the CEMS properly.
(d) The Department may require the operator to conduct CEMS performance evaluations at other times besides the initial test to evaluate the CEMS performance.
(e) The owner or operator must conduct the performance evaluation of the Hg CEMS according to OAR 340-228-0621(3)(d) and the following procedures:
(3) Summary of Performance Specification. Procedures for measuring CEMS relative accuracy, measurement error and drift are outlined. CEMS installation and measurement location specifications, and data reduction procedures are included. Conformance of the CEMS with the Performance Specification is determined.
(4) Definitions.
(a) "Continuous Emission Monitoring System (CEMS)" means the total equipment required for the determination of a pollutant concentration. The system consists of the following major subsystems:
(A) "Sample Interface" means that portion of the CEMS used for one or more of the following: sample acquisition, sample transport, sample conditioning, and protection of the monitor from the effects of the stack effluent.
(B) "Hg Analyzer" means that portion of the Hg CEMS that measures the total vapor phase Hg mass concentration and generates a proportional output.
(C) "Data Recorder" means that portion of the CEMS that provides a permanent electronic record of the analyzer output. The data recorder may provide automatic data reduction and CEMS control capabilities.
(b) "Span Value" means the upper limit of the intended Hg concentration measurement range. The span value is a value equal to two times the emission standard. Alternatively, the Hg span value(s) may be determined as follows:
(A) For each Hg monitor, determine a high span value, by rounding the maximum potential Hg concentration value from OAR 340-228-0602(25) upward to the next highest multiple of 10 µg/m3.
(B) For an affected unit equipped with an FGD system or a unit with add-on Hg emission controls, if the maximum expected Hg concentration value from OAR 340-228-0602(24) is less than 20 percent of the high span value from paragraph (4)(b)(A) of this rule, and if the high span value is 20 µg/m3 or greater, define a second, low span value of 10 µg/m3.
(C) If only a high span value is required, set the full-scale range of the Hg analyzer to be greater than or equal to the span value.
(D) If two span values are required, the owner or operator may either:
(i) Use two separate (high and low) measurement scales, setting the range of each scale to be greater than or equal to the high or low span value, as appropriate; or
(ii) Quality-assure two segments of a single measurement scale.
(c) "Measurement Error (ME)" means the absolute value of the difference between the concentration indicated by the Hg analyzer and the known concentration generated by a reference gas, expressed as a percentage of the span value, when the entire CEMS, including the sampling interface, is challenged. An

ME test procedure is performed to document the accuracy and linearity of the Hg CEMS at several points over the measurement range.
(d) "Upscale Drift (UD)" means the absolute value of the difference between the CEMS output response and an upscale Hg reference gas, expressed as a percentage of the span value, when the entire CEMS, including the sampling interface, is challenged after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.
(e) "Zero Drift (ZD)" means the absolute value of the difference between the CEMS output response and a zero-level Hg reference gas, expressed as a percentage of the span value, when the entire CEMS, including the sampling interface, is challenged after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.
(f) "Relative Accuracy (RA)" means the absolute mean difference between the pollutant concentration(s) determined by the CEMS and the value determined by the reference method (RM) plus the 2.5 percent error confidence coefficient of a series of tests divided by the mean of the RM tests. Alternatively, for low concentration sources, the RA may be expressed as the absolute value of the difference between the mean CEMS and RM values.
(5) Safety. The procedures required under this performance specification may involve hazardous materials, operations, and equipment. This performance specification may not address all of the safety problems associated with these procedures. It is the responsibility of the user to establish appropriate safety and health practices and determine the applicable regulatory limitations prior to performing these procedures. The CEMS user's manual and materials recommended by the RM should be consulted for specific precautions to be taken.
(6) Equipment and Supplies.
(a) CEMS Equipment Specifications.
(A) Data Recorder Scale. The Hg CEMS data recorder output range must include zero and a high level value. The high level value must be approximately two times the Hg concentration corresponding to the emission standard level for the stack gas under the circumstances existing as the stack gas is sampled. A lower high level value may be used, provided that the measured values do not exceed 95 percent of the high level value. Alternatively, the owner or operator may set the full-scale range(s) of the Hg analyzer according to subsection (4)(b) of this rule.
(B) The CEMS design should also provide for the determination of calibration drift at a zero value (zero to 20 percent of the span value) and at an upscale value (between 50 and 100 percent of the high-level value).
(b) Reference Gas Delivery System. The reference gas delivery system must be designed so that the flowrate of reference gas introduced to the CEMS is the same at all three challenge levels specified in subsection (7)(a) of this rule and at all times exceeds the flow requirements of the CEMS.
(c) Other equipment and supplies, as needed by the applicable reference method used. See paragraph (8)(f)(B) of this rule.
(7) Reagents and Standards.
(a) Reference Gases. Reference gas standards are required for both elemental and oxidized Hg (Hg and mercuric chloride, HgCl2). The use of National Institute of Standards and Technology (NIST)-certified or NIST-traceable standards and reagents is required. The following gas concentrations are required.
(A) Zero-level. 0 to 20 percent of the span value.
(B) Mid-level. 50 to 60 percent of the span value.
(C) High-level. 80 to 100 percent of the span value.

(b) Reference gas standards may also be required for the reference methods. See paragraph (8)(f)(B) of this rule.
(8) Performance Specification (PS) Test Procedure.
(a) Installation and Measurement Location Specifications.
(A) CEMS Installation. Install the CEMS at an accessible location downstream of all pollution control equipment. Since the Hg CEMS sample system normally extracts gas from a single point in the stack, use a location that has been shown to be free of stratification for SO_2 and NO_X through concentration measurement traverses for those gases. If the cause of failure to meet the RA test requirement is determined to be the measurement location and a satisfactory correction technique cannot be established, the Administrator may require the CEMS to be relocated. Measurement locations and points or paths that are most likely to provide data that will meet the RA requirements are listed below.
(B) Measurement Location. The measurement location should be (1) at least two equivalent diameters downstream of the nearest control device, point of pollutant generation or other point at which a change of pollutant concentration may occur, and (2) at least half an equivalent diameter upstream from the effluent exhaust. The equivalent duct diameter is calculated as per **appendix A to 40 CFR part 60**, Method 1.
(C) Hg CEMS Sample Extraction Point. Use a sample extraction point (1) no less than 1.0 meter from the stack or duct wall, or (2) within the centroidal velocity traverse area of the stack or duct cross section.
(b) RM Measurement Location and Traverse Points. Refer to PS 2 of **appendix B to 40 CFR part 60**. The RM and CEMS locations need not be immediately adjacent.
(c) ME Test Procedure. The Hg CEMS must be constructed to permit the introduction of known concentrations of Hg and HgCl2 separately into the sampling system of the CEMS immediately preceding the sample extraction filtration system such that the entire CEMS can be challenged. Sequentially inject each of the three reference gases (zero, mid-level, and high level) for each Hg species. Record the CEMS response and subtract the reference value from the CEMS value, and express the absolute value of the difference as a percentage of the span value. For each reference gas, the absolute value of the difference between the CEMS response and the reference value must not exceed 5 percent of the span value. If this specification is not met, identify and correct the problem before proceeding.
(d) UD Test Procedure.
(A) UD Test Period. While the affected facility is operating at more than 50 percent of normal load, or as specified in an applicable subpart, determine the magnitude of the UD once each day (at 24-hour intervals, to the extent practicable) for 7 consecutive unit operating days according to the procedure given in paragraphs (8)(d)(B) through (C) of this rule. The 7 consecutive unit operating days need not be 7 consecutive calendar days. Use either Hg^0 or HgCl2 standards for this test.
(B) The purpose of the UD measurement is to verify the ability of the CEMS to conform to the established CEMS response used for determining emission concentrations or emission rates. Therefore, if periodic automatic or manual adjustments are made to the CEMS zero and response settings, conduct the UD test immediately before these adjustments, or conduct it in such a way that the UD can be determined.
(C) Conduct the UD test at either the mid-level or high-level point specified in subsection (7)(a) of this rule. Introduce the reference gas to the CEMS. Record the CEMS response and subtract the reference value from the CEMS value, and express the absolute value of the difference as a percentage of the span value. For the reference gas, the absolute value of the difference between the CEMS response and the

reference value must not exceed 5 percent of the span value. If this specification is not met, identify and correct the problem before proceeding.
(e) ZD Test Procedure.
(A) ZD Test Period. While the affected facility is operating at more than 50 percent of normal load, or as specified in an applicable subpart, determine the magnitude of the ZD once each day (at 24-hour intervals, to the extent practicable) for 7 consecutive unit operating days according to the procedure given in paragraphs (8)(e)(B) through (C) of this rule. The 7 consecutive unit operating days need not be 7 consecutive calendar days. Use either nitrogen, air, Hg^0, or HgCl2 standards for this test.
(B) The purpose of the ZD measurement is to verify the ability of the CEMS to conform to the established CEMS response used for determining emission concentrations or emission rates. Therefore, if periodic automatic or manual adjustments are made to the CEMS zero and response settings, conduct the ZD test immediately before these adjustments, or conduct it in such a way that the ZD can be determined.
(C) Conduct the ZD test at the zero level specified in subsection (7)(a) of this rule. Introduce the zero gas to the CEMS. Record the CEMS response and subtract the zero value from the CEMS value and express the absolute value of the difference as a percentage of the span value. For the zero gas, the absolute value of the difference between the CEMS response and the reference value must not exceed 5 percent of the span value. If this specification is not met, identify and correct the problem before proceeding.
(f) RA Test Procedure.
(A) RA Test Period. Conduct the RA test according to the procedure given in paragraphs (8)(f)(B) through (F) of this rule while the affected facility is operating at normal full load, or as specified in an applicable subpart. The RA test may be conducted during the ZD and UD test period.
(B) RM. Use one of the reference methods specified in OAR 340-228-0602(33). Do not include the filterable portion of the sample when making comparisons to the CEMS results. When Method 29 or ASTM D6784–02 is used, conduct the RM test runs with paired or duplicate sampling systems. When an approved instrumental method is used, paired sampling systems are not required. If the RM and CEMS measure on a different moisture basis, data derived with Method 4 in **appendix A to 40 CFR part 60** must also be obtained during the RA test.
(C) Sampling Strategy for RM Tests. Conduct the RM tests in such a way that they will yield results representative of the emissions from the source and can be compared to the CEMS data. It is preferable to conduct moisture measurements (if needed) and Hg measurements simultaneously, although moisture measurements that are taken within an hour of the Hg measurements may be used to adjust the Hg concentrations to a consistent moisture basis. In order to correlate the CEMS and RM data properly, note the beginning and end of each RM test period for each paired RM run (including the exact time of day) on the CEMS chart recordings or other permanent record of output.
(D) Number and length of RM Tests. Conduct a minimum of nine RM test runs. When Method 29 or ASTM D6784–02 is used, only test runs for which the data from the paired RM trains meet the relative deviation (RD) criteria of this PS must be used in the RA calculations. In addition, for Method 29 and ASTM D 6784–02, use a minimum sample run time of 2 hours. **Note:** More than nine sets of RM tests may be performed. If this option is chosen, paired RM test results may be excluded so long as the total number of paired RM test results used to determine the CEMS RA is greater than or equal to nine. However, all data must be reported, including the excluded data.
(E) Correlation of RM and CEMS Data. Correlate the CEMS and the RM test data as to the time and duration by first determining from the CEMS final output (the one used for reporting) the integrated

average pollutant concentration for each RM test period. Consider system response time, if important, and confirm that the results are on a consistent moisture basis with the RM test. Then, compare each integrated CEMS value against the corresponding RM value. When Method 29 or ASTM D6784–02 is used, compare each CEMS value against the corresponding average of the paired RM values.
(F) Paired RM Outliers.
(i) When Method 29 or ASTM D6784–02 is used, outliers are identified through the determination of relative deviation (RD) of the paired RM tests. Data that do not meet this criteria should be flagged as a data quality problem. The primary reason for performing paired RM sampling is to ensure the quality of the RM data. The percent RD of paired data is the parameter used to quantify data quality. Determine RD for two paired data points as follows:

$RD=100 \times |(Ca-Cb)|/(Ca+ Cb)$

where Ca and Cb are concentration values determined from each of the two samples respectively.
(ii) A minimum performance criteria for RM Hg data is that RD for any data pair must be ≤10 percent as long as the mean Hg concentration is greater than 1.0 µg/m3. If the mean Hg concentration is less than or equal to 1.0 µg/m3, the RD must be ≤20 percent. Pairs of RM data exceeding these RD criteria should be eliminated from the data set used to develop a Hg CEMS correlation or to assess CEMS RA.
(G) Calculate the mean difference between the RM and CEMS values in the units of micrograms per cubic meter (µg/m3), the standard deviation, the confidence coefficient, and the RA according to the procedures in section (10) of this rule.
(g) Reporting. At a minimum (check with the Department for additional requirements, if any), summarize in tabular form the results of the RD tests and the RA tests or alternative RA procedure, as appropriate. Include all data sheets, calculations, charts (records of CEMS responses), reference gas concentration certifications, and any other information necessary to confirm that the performance of the CEMS meets the performance criteria.
(9) Analytical Procedure. Sample collection and analysis are concurrent for this PS (see section (8) of this rule). Refer to the RM employed for specific analytical procedures.
(10) Calculations and Data Analysis. Summarize the results on a data sheet similar to that shown in Figure 2–2 for PS 2.
(a) Consistent Basis. All data from the RM and CEMS must be compared in units of µg/m3, on a consistent and identified moisture and volumetric basis (STP = 20°C, 760 millimeters (mm) Hg).
(b) Moisture Correction (as applicable). If the RM and CEMS measure Hg on a different moisture basis, using the following equation to make the appropriate corrections to the Hg concentrations.

$Concentration(dry) = Concentration(wet)/(1-B_{ws})$

In the above equation, Bws is the moisture content of the flue gas from Method 4, expressed as a decimal fraction (*e.g.*, for 8.0 percent H2O, Bws = 0.08).
(c) Arithmetic Mean. Calculate the arithmetic mean of the difference, d, of a data set using equation 2 to this division.
(d) Standard Deviation. Calculate the standard deviation, Sd, using equation 3 to this division.
(e) Confidence Coefficient (CC). Calculate the 2.5 percent error confidence coefficient (one-tailed), CC, using equation 4 to this division.
(f) RA. Calculate the RA of a set of data using equation 5 to this division.

(11) Performance Specifications.
(a) ME. ME is assessed at zero-level, mid-level and high-level values as given below using standards for both Hg^0 and HgCl2. The mean difference between the indicated CEMS concentration and the reference concentration value for each standard must be no greater than 5 percent of the span value.
(b) UD. The UD must not exceed 5 percent of the span value on any of the 7 days of the UD test.
(c)ZD. The ZD must not exceed 5 percent of the span value on any of the 7 days of the ZD test.
(d) RA. The RA of the CEMS must be no greater than 20 percent of the mean value of the RM test data in terms of units of µg/m3. Alternatively, if the mean RM is less than 5.0 µg/m3, the results are acceptable if the absolute value of the difference between the mean RM and CEMS values does not exceed 1.0 µg/m3.
(12) Bibliography.
(a) 40 CFR part 60, appendix B, ''Performance Specification 2—Specifications and Test Procedures for SO_2 and NO_X Continuous Emission Monitoring Systems in Stationary Sources.''
(b) 40 CFR part 60, appendix A, ''Method 29—Determination of Metals Emissions from Stationary Sources.''
(c) ASTM Method D6784–02, ''Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method).''
(13) The following values are already corrected for n–1 degrees of freedom. Use n equal to the number of individual values.
(a) For n = 2, $t_{0.975}$ = 12.706.
(b) For n = 3, $t_{0.975}$ = 4.303.
(c) For n = 4, $t_{0.975}$ = 3.182.
(d) For n = 5, $t_{0.975}$ = 2.776.
(e) For n = 6, $t_{0.975}$ = 2.571.
(f) For n = 7, $t_{0.975}$ = 2.447.
(g) For n = 8, $t_{0.975}$ = 2.365.
(h) For n = 9, $t_{0.975}$ = 2.306.
(i) For n = 10, $t_{0.975}$ = 2.262.
(j) For n = 11, $t_{0.975}$ = 2.228.
(k) For n = 12, $t_{0.975}$ = 2.201.
(l) For n = 13, $t_{0.975}$ = 2.179.
(m) For n = 14, $t_{0.975}$ = 2.160.
(n) For n = 15, $t_{0.975}$ = 2.145.
(o) For n = 16, $t_{0.975}$ = 2.131.

Sorbent Trap Sampling Procedures

340-228-0627
Quality Assurance and Operating Procedures for Sorbent Trap Monitoring Systems
(1) Scope and Application. This rule specifies sampling, and analytical, and quality-assurance criteria and procedures for the performance-based monitoring of vapor-phase mercury (Hg) emissions in combustion flue gas streams, using a sorbent trap monitoring system (as defined in OAR 340-228-0602). The principle employed is continuous sampling using in-stack sorbent media coupled with analysis of the integrated samples. The performance-based approach of this rule allows for use of various suitable sampling and analytical technologies while maintaining a specified and documented level of data quality

through performance criteria. Persons using this rule should have a thorough working knowledge of Methods 1, 2, 3, 4 and 5 in **appendices A–1 through A–3 to 40 CFR part 60**, as well as the determinative technique selected for analysis.
(a) Analytes. The analyte measured by these procedures and specifications is total vapor-phase Hg in the flue gas, which represents the sum of elemental Hg (Hg^0, CAS Number 7439–97–6) and oxidized forms of Hg, in mass concentration units of micrograms per dry standard cubic meter (µg/dscm).
(b) Applicability. These performance criteria and procedures are applicable to monitoring of vapor-phase Hg emissions under relatively low-dust conditions (*i.e.*, sampling in the stack after all pollution control devices), from coal-fired electric utility steam generators. Individual sample collection times can range from 30 minutes to several days in duration, depending on the Hg concentration in the stack. The monitoring system must achieve the performance criteria specified in section (8) of this rule and the sorbent media capture ability must not be exceeded. The sampling rate must be maintained at a constant proportion to the total stack flowrate to ensure representativeness of the sample collected. Failure to achieve certain performance criteria will result in invalid Hg emissions monitoring data.
(2) Principle. Known volumes of flue gas are extracted from a stack or duct through paired, in-stack, pre-spiked sorbent media traps at an appropriate nominal flow rate. Collection of Hg on the sorbent media in the stack mitigates potential loss of Hg during transport through a probe/sample line. Paired train sampling is required to determine measurement precision and verify acceptability of the measured emissions data. The sorbent traps are recovered from the sampling system, prepared for analysis, as needed, and analyzed by any suitable determinative technique that can meet the performance criteria. A section of each sorbent trap is spiked with Hg^0 prior to sampling. This section is analyzed separately and the recovery value is used to correct the individual Hg sample for measurement bias.
(3) Clean Handling and Contamination. To avoid Hg contamination of the samples, special attention should be paid to cleanliness during transport, field handling, sampling, recovery, and laboratory analysis, as well as during preparation of the sorbent cartridges. Collection and analysis of blank samples (field, trip, lab) is useful in verifying the absence of contaminant Hg.
(4) Safety.
(a) Site hazards. Site hazards must be thoroughly considered in advance of applying these procedures/specifications in the field; advance coordination with the site is critical to understand the conditions and applicable safety policies. At a minimum, portions of the sampling system will be hot, requiring appropriate gloves, long sleeves, and caution in handling this equipment.
(b) Laboratory safety policies. Laboratory safety policies should be in place to minimize risk of chemical exposure and to properly handle waste disposal. Personnel must wear appropriate laboratory attire according to a Chemical Hygiene Plan established by the laboratory.
(c) Toxicity or carcinogenicity. The toxicity or carcinogenicity of any reagents used must be considered. Depending upon the sampling and analytical technologies selected, this measurement may involve hazardous materials, operations, and equipment and this rule does not address all of the safety problems associated with implementing this approach. It is the responsibility of the user to establish appropriate safety and health practices and determine the applicable regulatory limitations prior to performance. Any chemical should be regarded as a potential health hazard and exposure to these compounds should be minimized. Chemists should refer to the Material Safety Data Sheet (MSDS) for each chemical used.
(d) Wastes. Any wastes generated by this procedure must be disposed of according to a hazardous materials management plan that details and tracks various waste streams and disposal procedures.
(5) Equipment and Supplies. The following list is presented as an example of key equipment and supplies likely required to perform vapor-phase Hg monitoring using a sorbent trap monitoring system.

It is recognized that additional equipment and supplies may be needed. Collection of paired samples is required. Also required are a certified stack gas volumetric flow monitor that meets the requirements of **40 CFR 75.10** and an acceptable means of correcting for the stack gas moisture content, *i.e.*, either by using data from a certified continuous moisture monitoring system or by using an approved default moisture value (see **40 CFR 75.11(b)**).

(a) Sorbent Trap Monitoring System. The monitoring system must include the following components:

(A) Sorbent Traps. The sorbent media used to collect Hg must be configured in a trap with three distinct and identical segments or sections, connected in series, that are amenable to separate analyses. Section 1 is designated for primary capture of gaseous Hg. Section 2 is designated as a backup section for determination of vapor-phase Hg breakthrough. Section 3 is designated for QA/QC purposes where this section must be spiked with a known amount of gaseous Hg^0 prior to sampling and later analyzed to determine recovery efficiency. The sorbent media may be any collection material (*e.g.*, carbon, chemically-treated filter, etc.) capable of quantitatively capturing and recovering for subsequent analysis, all gaseous forms of Hg for the intended application. Selection of the sorbent media must be based on the material's ability to achieve the performance criteria contained in section (8) of this rule as well as the sorbent's vapor phase Hg capture efficiency for the emissions matrix and the expected sampling duration at the test site. The sorbent media must be obtained from a source that can demonstrate the quality assurance and control necessary to ensure consistent reliability. The paired sorbent traps are supported on a probe (or probes) and inserted directly into the flue gas stream.

(B) Sampling Probe Assembly. Each probe assembly must have a leak-free attachment to the sorbent trap(s). Each sorbent trap must be mounted at the entrance of or within the probe such that the gas sampled enters the trap directly. Each probe/sorbent trap assembly must be heated to a temperature sufficient to prevent liquid condensation in the sorbent trap(s). Auxiliary heating is required only where the stack temperature is too low to prevent condensation. Use a calibrated thermocouple to monitor the stack temperature. A single probe capable of operating the paired sorbent traps may be used. Alternatively, individual probe/sorbent trap assemblies may be used, provided that the individual sorbent traps are co-located to ensure representative Hg monitoring and are sufficiently separated to prevent aerodynamic interference.

(C) Moisture Removal Device. A robust moisture removal device or system, suitable for continuous duty (such as a Peltier cooler), must be used to remove water vapor from the gas stream prior to entering the dry gas meter.

(D) Vacuum Pump. Use a leak-tight, vacuum pump capable of operating within the candidate system's flow range.

(E) Dry Gas Meter. A dry gas meter must be used to determine total sample volume. The meter must be sufficiently accurate to measure the total sample volume within 2 percent, must be calibrated at the selected flow rate and conditions actually encountered during sampling, and must be equipped with a temperature sensor capable of measuring typical meter temperatures accurately to within 3°C for correcting final sample volume.

(F) Sample Flow Rate Meter and Controller. Use a flow rate indicator and controller for maintaining necessary sampling flow rates.

(G) Temperature Sensor. Same as Section 6.1.1.7 of Method 5 in **appendix A–3 to 40 CFR part 60**.

(H) Barometer. Same as Section 6.1.2 of Method 5 in **appendix A–3 to 40 CFR part 60**.

(I) Data Logger (Optional). Device for recording associated and necessary ancillary information (e.g., temperatures, pressures, flow, time, etc.).

(b) Gaseous Hg^0 Sorbent Trap Spiking System. A known mass of gaseous Hg^0 must be spiked onto section 3 of each sorbent trap prior to sampling. Any approach capable of quantitatively delivering known masses of Hg^0 onto sorbent traps is acceptable. Several technologies or devices are available to meet this objective. Their practicality is a function of Hg mass spike levels. For low levels, NIST-certified or NIST-traceable gas generators or tanks may be suitable, but will likely require long preparation times. A more practical, alternative system, capable of delivering almost any mass required, makes use of NIST-certified or NIST-traceable Hg salt solutions (*e.g.*, Hg(NO3)2). With this system, an aliquot of known volume and concentration is added to a reaction vessel containing a reducing agent (*e.g.*, stannous chloride); the Hg salt solution is reduced to Hg^0 and purged onto section 3 of the sorbent trap using an impinger sparging system.

(c) Sample Analysis Equipment. Any analytical system capable of quantitatively recovering and quantifying total gaseous Hg from sorbent media is acceptable provided that the analysis can meet the performance criteria in section (8) of this rule. Candidate recovery techniques include leaching, digestion, and thermal desorption. Candidate analytical techniques include ultraviolet atomic fluorescence (UV AF); ultraviolet atomic absorption (UV AA), with and without gold trapping; and in situ X-ray fluorescence (XRF) analysis.

(6) Reagents and Standards. Only NIST-certified or NIST-traceable calibration gas standards and reagents must be used for the tests and procedures required under this rule.

(7) Sample Collection and Transport.

(a) Pre-Test Procedures.

(A) Selection of Sampling Site. Sampling site information should be obtained in accordance with Method 1 in **appendix A–1 to 40 CFR part 60**. Identify a monitoring location representative of source Hg emissions. Locations shown to be free of stratification through measurement traverses for gases such as SO_2 and NO_X may be one such approach. An estimation of the expected stack Hg concentration is required to establish a target sample flow rate, total gas sample volume, and the mass of Hg^0 to be spiked onto section 3 of each sorbent trap.

(B) Pre-Sampling Spiking of Sorbent Traps. Based on the estimated Hg concentration in the stack, the target sample rate and the target sampling duration, calculate the expected mass loading for section 1 of each sorbent trap (for an example calculation, see subsection (12)(a) of this rule). The pre-sampling spike to be added to section 3 of each sorbent trap must be within + 50 percent of the expected section 1 mass loading. Spike section 3 of each sorbent trap at this level, as described in subsection (5)(b) of this rule. For each sorbent trap, keep an official record of the mass of Hg^0 added to section 3. This record must include, at a minimum, the ID number of the trap, the date and time of the spike, the name of the analyst performing the procedure, the mass of Hg^0 added to section 3 of the trap (µg), and the supporting calculations. This record must be maintained in a format suitable for inspection and audit and must be made available to the regulatory agencies upon request.

(C) Pre-test Leak Check. Perform a leak check with the sorbent traps in place. Draw a vacuum in each sample train. Adjust the vacuum in the sample train to +15″ Hg. Using the dry gas meter, determine leak rate. The leakage rate must not exceed 4 percent of the target sampling rate. Once the leak check passes this criterion, carefully release the vacuum in the sample train then seal the sorbent trap inlet until the probe is ready for insertion into the stack or duct.

(D) Determination of Flue Gas Characteristics. Determine or measure the flue gas measurement environment characteristics (gas temperature, static pressure, gas velocity, stack moisture, etc.) in order to determine ancillary requirements such as probe heating requirements (if any), initial sample rate, proportional sampling conditions, moisture management, etc.

(b) Sample Collection.
(A) Remove the plug from the end of each sorbent trap and store each plug in a clean sorbent trap storage container. Remove the stack or duct port cap and insert the probe(s). Secure the probe(s) and ensure that no leakage occurs between the duct and environment.
(B) Record initial data including the sorbent trap ID, start time, starting dry gas meter readings, initial temperatures, setpoints, and any other appropriate information.
(C) Flow Rate Control. Set the initial sample flow rate at the target value from paragraph (7)(a)(A) of this rule. Record the initial dry gas meter reading, stack temperature, meter temperatures, etc. Then, for every operating hour during the sampling period, record the date and time, the sample flow rate, the gas meter reading, the stack temperature, the flow meter temperatures, temperatures of heated equipment such as the vacuum lines and the probes (if heated), and the sampling system vacuum readings. Also record the stack gas flow rate, as measured by the certified flow monitor, and the ratio of the stack gas flow rate to the sample flow rate. Adjust the sampling flow rate to maintain proportional sampling, *i.e.*, keep the ratio of the stack gas flow rate to sample flow rate constant, to within + 25 percent of the reference ratio from the first hour of the data collection period (see section (11) of this rule). The sample flow rate through a sorbent trap monitoring system during any hour (or portion of an hour) in which the unit is not operating shall be zero.
(D) Stack Gas Moisture Determination. Determine stack gas moisture using a continuous moisture monitoring system, as described in **40 CFR 75.11(b)**. Alternatively, the owner or operator may use the appropriate fuel-specific moisture default value provided in **40 CFR 75.11**, or a site specific moisture default value approved by petition under **40 CFR 75.66**.
(E) Essential Operating Data. Obtain and record any essential operating data for the facility during the test period, *e.g.*, the barometric pressure must be obtained for correcting sample volume to standard conditions. At the end of the data collection period, record the final dry gas meter reading and the final values of all other essential parameters.
(F) Post Test Leak Check. When sampling is completed, turn off the sample pump, remove the probe/sorbent trap from the port and carefully re-plug the end of each sorbent trap. Perform a leak check with the sorbent traps in place, at the maximum vacuum reached during the sampling period. Use the same general approach described in paragraph (7)(a)(C) of this rule. Record the leakage rate and vacuum. The leakage rate must not exceed 4 percent of the average sampling rate for the data collection period. Following the leak check, carefully release the vacuum in the sample train.
(G) Sample Recovery. Recover each sampled sorbent trap by removing it from the probe, sealing both ends. Wipe any deposited material from the outside of the sorbent trap. Place the sorbent trap into an appropriate sample storage container and store/preserve in appropriate manner.
(H) Sample Preservation, Storage, and Transport. While the performance criteria of this approach provide for verification of appropriate sample handling, it is still important that the user consider, determine, and plan for suitable sample preservation, storage, transport, and holding times for these measurements. Therefore, procedures in ASTM D6911–03 ''Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis'' must be followed for all samples.
(I) Sample Custody. Proper procedures and documentation for sample chain of custody are critical to ensuring data integrity. The chain of custody procedures in ASTM D4840–99 (reapproved 2004) ''Standard Guide for Sample Chain-of-Custody Procedures'' must be followed for all samples (including field samples and blanks).
(8) Quality Assurance and Quality Control. The owner and operator using a sorbent trap monitoring system must develop and implement a quality assurance/quality control (QA/QC) program. At a

minimum, include in each QA/QC program a written plan that describes in detail (or that refers to separate documents containing) complete, step-by-step procedures and operations. Upon request from the Department, the owner or operator must make all procedures, maintenance records, and ancillary supporting documentation from the manufacturer (e.g., software coefficients and troubleshooting diagrams) available for review during an audit. Electronic storage of the information in the QA/QC plan is permissible, provided that the information can be made available in hardcopy upon request during an audit. Table 2 to this division summarizes the QA/QC performance criteria that are used to validate the Hg emissions data from sorbent trap monitoring systems, including the relative accuracy test audit (RATA) requirement (see section 6.5.7 of **appendix A to 40 CFR part 75** and section 2.3 of **appendix B to 40 CFR part 75**, except that for sorbent trap monitoring systems, RATAs must be performed annually, i.e., once every four successive QA operating quarters). The RATA must meet the requirements in OAR 340-228-0621(3)(d)(C)(iii). Except as provided in OAR 340-228-0617(8) and as otherwise indicated in Table 2 to this division, failure to achieve these performance criteria will result in invalidation of Hg emissions data.

(9) Quality Assurance and Quality Control Plan Content. In addition to section 1 of **Appendix B to 40 CFR part 75**, the QA/QC plan must contain the following:

(a) Sorbent Trap Identification and Tracking. Include procedures for inscribing or otherwise permanently marking a unique identification number on each sorbent trap, for tracking purposes. Keep records of the ID of the monitoring system in which each sorbent trap is used, and the dates and hours of each Hg collection period.

(b) Monitoring System Integrity and Data Quality. Explain the procedures used to perform the leak checks when a sorbent trap is placed in service and removed from service. Also explain the other QA procedures used to ensure system integrity and data quality, including, but not limited to, dry gas meter calibrations, verification of moisture removal, and ensuring air-tight pump operation. In addition, the QA plan must include the data acceptance and quality control criteria in section (8) of this rule.

(c) Hg Analysis. Explain the chain of custody employed in packing, transporting, and analyzing the sorbent traps (see paragraphs (7)(b)(H) and (I) of this rule). Keep records of all Hg analyses. The analyses must be performed in accordance with the procedures described in section (11) of this rule.

(d) Laboratory Certification. The QA Plan must include documentation that the laboratory performing the analyses on the carbon sorbent traps is certified by the International Organization for Standardization (ISO) to have a proficiency that meets the requirements of ISO 17025. Alternatively, if the laboratory performs the spike recovery study described in subsection (11)(c) of this rule and repeats that procedure annually, ISO certification is not required.

(10) Calibration and Standardization.

(a) Only NIST-certified and NIST-traceable calibration standards (i.e., calibration gases, solutions, etc.) must be used for the spiking and analytical procedures in this rule.

(b) Dry Gas Meter Calibration. Prior to its initial use, perform a full calibration of the metering system at three orifice settings to determine the average dry gas meter coefficient (Y), as described in section 10.3.1 of Method 5 in **appendix A–3 to 40 CFR part 60**. Thereafter, recalibrate the metering system quarterly at one intermediate orifice setting, as described in section 10.3.2 of Method 5 in **appendix A–3 to 40 CFR part 60**. If a quarterly recalibration shows that the value of Y has changed by more than 5 percent, repeat the full calibration of the metering system to determine a new value of Y.

(c) Thermocouples and Other Temperature Sensors. Use the procedures and criteria in section 10.3 of Method 2 in **appendix A–1 to 40 CFR part 60** to calibrate in-stack temperature sensors and thermocouples. Dial thermometers must be calibrated against mercury-in-glass thermometers.

Calibrations must be performed prior to initial use and at least quarterly thereafter. At each calibration point, the absolute temperature measured by the temperature sensor must agree to within + 1.5 percent of the temperature measured with the reference sensor, otherwise the sensor may not continue to be used.
(d) Barometer. Calibrate against a mercury barometer. Calibration must be performed prior to initial use and at least quarterly thereafter. At each calibration point, the absolute pressure measured by the barometer must agree to within + 10 mm Hg of the pressure measured by the mercury barometer, otherwise the barometer may not continue to be used.
(e) Other Sensors and Gauges. Calibrate all other sensors and gauges according to the procedures specified by the instrument manufacturer(s).
(f) Analytical System Calibration. See subsection (10)(a) of this rule.
(11) Analytical Procedures. The analysis of the Hg samples may be conducted using any instrument or technology capable of quantifying total Hg from the sorbent media and meeting the performance criteria in section (8) of this rule.
(a) Analyzer System Calibration. Perform a multipoint calibration of the analyzer at three or more upscale points over the desired quantitative range (multiple calibration ranges must be calibrated, if necessary). The field samples analyzed must fall within a calibrated, quantitative range and meet the necessary performance criteria. For samples that are suitable for aliquotting, a series of dilutions may be needed to ensure that the samples fall within a calibrated range. However, for sorbent media samples that are consumed during analysis (*e.g.*, thermal desorption techniques), extra care must be taken to ensure that the analytical system is appropriately calibrated prior to sample analysis. The calibration curve range(s) should be determined based on the anticipated level of Hg mass on the sorbent media. Knowledge of estimated stack Hg concentrations and total sample volume may be required prior to analysis. The calibration curve for use with the various analytical techniques (*e.g.*, UV AA, UV AF, and XRF) can be generated by directly introducing standard solutions into the analyzer or by spiking the standards onto the sorbent media and then introducing into the analyzer after preparing the sorbent/standard according to the particular analytical technique. For each calibration curve, the value of the square of the linear correlation coefficient, i.e., r2, must be $\geq$ 0.99, and the analyzer response must be within + 10 percent of reference value at each upscale calibration point. Calibrations must be performed on the day of the analysis, before analyzing any of the samples. Following calibration, an independently prepared standard (not from same calibration stock solution) must be analyzed. The measured value of the independently prepared standard must be within + 10 percent of the expected value.
(b) Sample Preparation. Carefully separate the three sections of each sorbent trap. Combine for analysis all materials associated with each section, *i.e.*, any supporting substrate that the sample gas passes through prior to entering a media section (*e.g.*, glass wool, polyurethane foam, etc.) must be analyzed with that segment.
(c) Spike Recovery Study. Before analyzing any field samples, the laboratory must demonstrate the ability to recover and quantify Hg from the sorbent media by performing the following spike recovery study for sorbent media traps spiked with elemental mercury. Using the procedures described in subsections (5)(b) and (11)(a) of this rule, spike the third section of nine sorbent traps with gaseous Hg^0, *i.e.*, three traps at each of three different mass loadings, representing the range of masses anticipated in the field samples. This will yield a 3 x 3 sample matrix. Prepare and analyze the third section of each spiked trap, using the techniques that will be used to prepare and analyze the field samples. The average recovery for each spike concentration must be between 85 and 115 percent. If multiple types of sorbent

media are to be analyzed, a separate spike recovery study is required for each sorbent material. If multiple ranges are calibrated, a separate spike recovery study is required for each range.
(d) Field Sample Analyses. Analyze the sorbent trap samples following the same procedures that were used for conducting the spike recovery study. The three sections of the sorbent trap must be analyzed separately (i.e., section 1, then section 2, then section 3). Quantify the mass of total Hg for each section based on analytical system response and the calibration curve from subsection (10)(a) of this rule. Determine the spike recovery from sorbent trap section 3. Pre-sampling spike recoveries must be between 75 and 125 percent. To report final Hg mass, normalize the data for sections 1 and 2 based on the sample-specific spike recovery, and add the normalized masses together.
(12) Calculations and Data Analysis.
(a) Calculation of Pre-Sampling Spiking Level. Determine sorbent trap section 3 spiking level using estimates of the stack Hg concentration, the target sample flow rate, and the expected sample duration. First, calculate the expected Hg mass that will be collected in section 1 of the trap. The presampling spike must be within + 50 percent of this mass. Example calculation: For an estimated stack Hg concentration of 5 µg/m3, a target sample rate of 0.30 L/min, and a sample duration of 5 days:

(0.30 L/min) (1440 min/day) (5 days) (10^{-3} m3/liter) (5µg/m3) = 10.8 µg

A pre-sampling spike of 10.8 µg + 50 percent is, therefore, appropriate.
(b) Calculations for Flow-Proportional Sampling. For the first hour of the data collection period, determine the reference ratio of the stack gas volumetric flow rate to the sample flow rate, as follows:

Rref = K x Qref / Fref

Where:
Rref = Reference ratio of hourly stack gas flow rate to hourly sample flow rate
Qref = Average stack gas volumetric flow rate for first hour of collection period, adjusted for bias, if necessary according to section 7.6.5 of **appendix A to 40 CFR part 75**, (scfh)
Fref = Average sample flow rate for first hour of the collection period, in appropriate units (*e.g.*, liters/min, cc/min, dscm/min)
K = Power of ten multiplier, to keep the value of Rref between 1 and 100. The appropriate K value will depend on the selected units of measure for the sample flow rate. Then, for each subsequent hour of the data collection period, calculate ratio of the stack gas flow rate to the sample flow rate using the following equation:

Rh = K x Qh / Fh

Where:
Rh = Ratio of hourly stack gas flow rate to hourly sample flow rate
Qh = Average stack gas volumetric flow rate for the hour, adjusted for bias, if necessary, according to section 7.6.5 of **appendix A to 40 CFR part 75**, (scfh)
Fh = Average sample flow rate for the hour, in appropriate units (*e.g.*, liters/min, cc/min, dscm/min)
K = Power of ten multiplier, to keep the value of Rh between 1 and 100. The appropriate K value will depend on the selected units of measure for the sample flow rate and the range of expected stack gas flow rates.

Maintain the value of Rh within + 25 percent of Rref throughout the data collection period.

(c) Calculation of Spike Recovery. Calculate the percent recovery of each section 3 spike, as follows:

$$\%R = (M3/Ms) \times 100$$

Where:

%R = Percentage recovery of the presampling spike

M3 = Mass of Hg recovered from section 3 of the sorbent trap, (µg)

Ms = Calculated Hg mass of the pre-sampling spike, from paragraph (7)(a)(B) of this rule, (µg)

(d) Calculation of Breakthrough. Calculate the percent breakthrough to the second section of the sorbent trap, as follows:

$$\%B = (M2/M1) \times 100$$

Where:

%B = Percent breakthrough

M2 = Mass of Hg recovered from section 2 of the sorbent trap, (µg)

M1 = Mass of Hg recovered from section 1 of the sorbent trap, (µg)

(e) Normalizing Measured Hg Mass for Section 3 Spike Recoveries. Based on the results of the spike recovery in subsection (12)(c) of this rule, normalize the Hg mass collected in sections 1 and 2 of the sorbent trap, as follows:

$$M^* = ((M1+M2) \times Ms) / M3$$

Where:

M* = Normalized total mass of Hg recovered from sections 1 and of the sorbent trap, (µg)

M1 = Mass of Hg recovered from section 1 of the sorbent trap, unadjusted, (µg)

M2 = Mass of Hg recovered from section 2 of the sorbent trap, unadjusted, (µg)

Ms = Calculated Hg mass of the pre-sampling spike, from paragraph (7)(a)(B) of this rule, (µg)

M3 = Mass of Hg recovered from section 3 of the sorbent trap, (µg)

(f) Calculation of Hg Concentration. Calculate the Hg concentration for each sorbent trap, using the following equation:

$$C = M^* / Vt$$

Where:

C = Concentration of Hg for the collection period, (µg/dscm)

M* = Normalized total mass of Hg recovered from sections 1 and 2 of the sorbent trap, (µg)

Vt = Total volume of dry gas metered during the collection period, (dscm). For the purposes of this rule, standard temperature and pressure are defined as 20°C and 760 mm Hg, respectively.

(g) Calculation of Paired Trap Agreement. Calculate the relative deviation (RD) between the Hg concentrations measured with the paired sorbent traps as follows:

$$RD = (|Ca - Cb| / (Ca + Cb)) \times 100$$

Where:
RD = Relative deviation between the Hg concentrations from traps "a" and "b" (percent)
Ca = Concentration of Hg for the collection period, for sorbent trap "a" (µg/dscm)
Cb = Concentration of Hg for the collection period, for sorbent trap "b" (µg/dscm)
(h) Calculation of Hg Mass Emissions. To calculate Hg mass emissions, follow the procedures in OAR 340-228-0619(1)(b). Use the average of the two Hg concentrations from the paired traps in the calculations, except as provided in OAR 340-228-0617(8) or in Table 2 to this division.
(13) Method Performance. These monitoring criteria and procedures have been applied to coal-fired utility boilers (including units with post-combustion emission controls), having vapor-phase Hg concentrations ranging from 0.03 µg/dscm to 100 µg/dscm.

Out of Control Periods

340-228-0629
Out of Control Periods and Adjustment for System Bias
(1) Whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of OAR 340-228-0623, data must be substituted using the applicable missing data procedures.
(2) Audit decertification. Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under OAR 340-228-0621 or the applicable provisions of **40 CFR part 75**, both at the time of the initial certification or recertification application submission and at the time of the audit, the Department will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this section, an audit must be either a field audit or an audit of any information submitted to the Department. By issuing the notice of disapproval, the Department revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system must not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator must follow the applicable initial certification or recertification procedures in OAR 340-228-0621 for each disapproved monitoring system.
(3) When the bias test indicates that a flow monitor, a Hg concentration monitoring system or a sorbent trap monitoring system is biased low (*i.e.*, the arithmetic mean of the differences between the reference method value and the monitor or monitoring system measurements in a relative accuracy test audit exceed the bias statistic), the owner or operator must adjust the monitor or continuous emission monitoring system to eliminate the cause of bias such that it passes the bias test or calculate and use the bias adjustment factor given in Equations A-11 and A-12 of **appendix A to 40 CFR part 75**, to adjust the monitored data.

Missing Data Procedure

340-228-0631
Standard Missing Data Procedures for Hg CEMS

(1) Once 720 quality assured monitor operating hours of Hg concentration data have been obtained following initial certification, the owner or operator must provide substitute data for Hg concentration in accordance with the procedures in **40 CFR 75.33(b)(1) through (b)(4)**, except that the term "Hg concentration" shall apply rather than "SO_2 concentration," the term "Hg concentration monitoring system" shall apply rather than "SO_2 pollutant concentration monitor," the term "maximum potential Hg concentration," as defined in 340-228-0602(25) shall apply, rather than "maximum potential SO_2 concentration", and the percent monitor data availability trigger conditions prescribed for Hg in Table 1 of this division shall apply rather than the trigger conditions prescribed for SO2.
(2) For a unit equipped with add-on Hg emission controls (e.g., carbon injection), the standard missing data procedures in section (1) of this rule may only be used for hours in which the Hg emission controls are documented to be operating properly, as described in OAR 340-228-0635(6). For any hour(s) in the missing data period for which this documentation is unavailable, the owner or operator must report, as applicable, the maximum potential Hg concentration, as defined in OAR 340-228-0602(25). In addition, under **40 CFR 75.64(c)**, the owner or operator must submit as part of each quarterly report, a certification statement, verifying the proper operation of the Hg emission controls for each missing data period in which the procedures in section (1) of this rule are applied.
(3) For units with add-on Hg controls, when the percent monitor data availability is less than 80.0 percent and is greater than or equal to 70.0 percent, and a missing data period occurs, consistent with **40 CFR 75.34(a)(3)**, for each missing data hour in which the Hg emission controls are documented to be operating properly, the owner or operator may report the maximum controlled Hg concentration recorded in the previous 720 quality-assured monitor operating hours. In addition, when the percent monitor data availability is less than
70.0 percent and a missing data period occurs, consistent with **40 CFR 75.34(a)(5)**, for each missing data hour in which the Hg emission controls are documented to be operating properly, the owner or operator may report the greater of the maximum expected Hg concentration (MEC) or 1.25 times the maximum controlled Hg concentration recorded in the previous 720 quality-assured monitor operating hours. The MEC must be determined in accordance with OAR 340-228-0602(24).

340-228-0633
Missing Data Procedures for Sorbent Trap Monitoring Systems
(1) If a primary sorbent trap monitoring system has not been certified by the applicable compliance date specified under OAR 340-228-0609(2), and if the quality-assured Hg concentration data from a certified backup Hg monitoring system, reference method, or approved alternative monitoring system are unavailable, the owner or operator must report the maximum potential Hg concentration, as defined in OAR 340-228-0602(25), until the primary system is certified.
(2) For a certified sorbent trap system, a missing data period will occur in the following circumstances, unless quality-assured Hg concentration data from a certified backup Hg CEMS, sorbent trap system, reference method, or approved alternative monitoring system are available:
(a) A gas sample is not extracted from the stack during unit operation (*e.g.* during a monitoring system malfunction or when the system undergoes maintenance); or
(b) The results of the Hg analysis for the paired sorbent traps are missing or invalid (as determined using the quality assurance procedures in OAR 340-228-0627). The missing data period begins with the hour in which the paired sorbent traps for which the Hg analysis is missing or invalid were put into service. The missing data period ends at the first hour in which valid Hg concentration data are obtained with

another pair of sorbent traps (i.e., the hour at which this pair of traps was placed in service), or with a certified backup Hg CEMS, reference method, or approved alternative monitoring system.
(3) Initial missing data procedures. Use the following missing data procedures until 720 hours of quality-assured Hg concentration data have been collected with the sorbent trap monitoring system(s), following initial certification. For each hour of the missing data period, the substitute data value for Hg concentration shall be the average Hg concentration from all valid sorbent trap analyses to date, including data from the initial certification test runs.
(4) Standard missing data procedures. Once 720 quality-assured hours of data have been obtained with the sorbent trap system(s), begin reporting the percent monitor data availability in accordance with **40 CFR 75.32** and switch from the initial missing data procedures in section (3) of this rule to the standard missing data procedures in OAR 340-228-0631.
(5) Notwithstanding the requirements of sections (3) and (4) of this rule, if the unit has add-on Hg emission controls, the owner or operator must report the maximum potential Hg concentration, as defined in 340-228-0602(25), for any hour(s) in the missing data period for which proper operation of the Hg emission controls is not documented according to OAR 340-228-0635(6).
(6) In cases where the owner or operator elects to use a primary Hg CEMS and a certified redundant (or non-redundant) backup sorbent trap monitoring system (or vice-versa), when both the primary and backup monitoring systems are out-of-service and quality-assured Hg concentration data from a temporary like-kind replacement analyzer, reference method, or approved alternative monitoring system are unavailable, the previous 720 quality-assured monitor operating hours reported in the quarterly report under OAR 340-228-0637(4) must be used for the required missing data lookback, irrespective of whether these data were recorded by the Hg CEMS, the sorbent trap system, a temporary like-kind replacement analyzer, a reference method, or an approved alternative monitoring system.

Recordkeeping and Reporting

340-228-0635
Recordkeeping
(1) General recordkeeping provisions. The owner or operator of any coal-fired electric generating unit must maintain for each coal-fired electric generating unit and each non-affected unit under OAR 340-228-0615(2)(b)(B) a file of all measurements, data, reports, and other required information at the source in a form suitable for inspection for at least 5 years from the date of each record. Except for the certification data required in **40 CFR 75.57(a)(4)** and the initial submission of the monitoring plan required in **40 CFR 75.57(a)(5)**, the data must be collected beginning with the earlier of the date of provisional certification or the compliance deadline in OAR 340-228-0609(2). The certification data required in **40 CFR 75.57(a)(4)** must be collected beginning with the date of the first certification test performed. The file must contain the following information:
(a) The information required in **40 CFR 75.57(a)(2), (a)(4), (a)(5), (a)(6), (b), (c)(2), (g)** (if applicable), **(h)**, and sections (4) or (5) of this rule (as applicable).
(b) For coal-fired electric generating units using Hg CEMS or sorbent trap monitoring systems, for each hour when the unit is operating, record the Hg mass emissions, calculated in accordance with OAR 340-228-0619.
(c) Heat input and Hg methodologies for the hour.
(d) Formulas from monitoring plan for total Hg mass emissions and heat input rate (if applicable); and

(e) Laboratory calibrations of the source sampling equipment. For sorbent trap monitoring systems, the laboratory analyses of all sorbent traps, and information documenting the results of all leak checks and other applicable quality control procedures.

(f) Unless otherwise provided, the owners and operators of the coal-fired electric generating unit must keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department.

(A) All emissions monitoring information, in accordance with OAR 340-228-0609 through 0637.

(B) Copies of all reports, compliance certifications, and other submissions.

(2) Certification, quality assurance, and quality control record provisions. The owner or operator of a coal-fired electric generating unit must maintain the information required in **40 CFR 75.59**, including the following:

(a) For each Hg monitor, the owner or operator must record the information in **40 CFR 75.59(a)(1)(i) through (xi)** for all daily and 7-day calibration error tests, all daily system integrity checks (Hg monitors, only), and all off-line calibration demonstrations, including any follow-up tests after corrective action.

(b) For each Hg concentration monitor, the owner or operator must record the information in **40 CFR 75.59(a)(3)(i) through (x)** for the initial and all subsequent linearity check(s) and 3-level system integrity checks (Hg monitors with converters, only), including any follow-up tests after corrective action.

(c) For each Hg concentration monitoring system or sorbent trap monitoring system, the owner or operator must record the information in **40 CFR 75.59(a)(5)(i) and (iii) through (vii)** for the initial and all subsequent relative accuracy test audits. The owner or operator must also record individual test run data from the relative accuracy test audit for the Hg concentration monitoring system or sorbent trap monitoring system, including the information in **40 CFR 75.59(a)(5)(ii)(A) through (M).**

(d) For each Hg pollutant concentration monitor, the owner or operator must record the information in **40 CFR 75.59(a)(6)(i) through (xi)** for the cycle time test.

(e) For each relative accuracy test audit run using the Ontario Hydro Method to determine Hg concentration:

(A) Percent CO_2 and O_2 in the stack gas, dry basis;

(B) Moisture content of the stack gas (percent H_2O);

(C) Average stack temperature ($^{\circ}F$);

(D)) Dry gas volume metered (dscm);

(E) Percent isokinetic;

(F) Particle-bound Hg collected by the filter, blank, and probe rinse (µg);

(G) Oxidized Hg collected by the KCl impingers (µg);

(H) Elemental Hg collected in the HNO_3/H_2O_2 impinger and in the $KMnO_4/H_2SO_4$ impingers (µg);

(I) Total Hg, including particle-bound Hg (µg); and

(J) Total Hg, excluding particle-bound Hg (µg).

(f) For each RATA run using Method 29 to determine Hg concentration:

(A) Percent CO_2 and O_2 in the stack gas, dry basis;

(B) Moisture content of the stack gas (percent H_2O);

(C) Average stack gas temperature (°F);

(D) Dry gas volume metered (dscm);

(E) Percent isokinetic;

(F) Particulate Hg collected in the front half of the sampling train, corrected for the front-half blank value (µg); and
(G) Total vapor phase Hg collected in the back half of the sampling train, corrected for the back-half blank value (µg).
(g) When hardcopy relative accuracy test reports, certification reports, recertification reports, or semiannual or annual reports for Hg CEMS or sorbent trap monitoring systems are required or requested under **40 CFR 75.60(b)(6) or 75.63**, the reports must include, at a minimum, the elements in **40 CFR 75.59(a)(9)(i) through (ix)** (as applicable to the type(s) of test(s) performed). For sorbent trap monitoring systems, the report must include laboratory analyses of all sorbent traps, and information documenting the results of all leak checks and other applicable quality control procedures.
(h) Except as otherwise provided in subsection (6)(a) of this rule, for units with add-on Hg emission controls, the owner or operator must keep the records in **40 CFR 75.59(c)(1) through (2)** on-site in the quality assurance/quality control plan.
(3) Monitoring plan recordkeeping provisions.
(a) General provisions. The owner or operator of a coal-fired electric generating unit must prepare and maintain a monitoring plan for each affected unit or group of units monitored at a common stack and each non coal-fired electric generating unit under OAR 340-228-0615(2)(b)(B). The monitoring plan must contain sufficient information on the continuous monitoring systems and the use of data derived from these systems to demonstrate that all the unit's Hg emissions are monitored and reported.
(b) Updates. Whenever the owner or operator makes a replacement, modification, or change in a certified continuous monitoring system or alternative monitoring system under **40 CFR part 75 subpart E**, including a change in the automated data acquisition and handling system or in the flue gas handling system, that affects information reported in the monitoring plan (*e.g.*, a change to a serial number for a component of a monitoring system), then the owner or operator must update the monitoring plan.
(c) Contents of the monitoring plan. Each monitoring plan must contain the information in **40 CFR 75.53(g)(1)** in electronic format and the information in **40 CFR 75.53(g)(2)** in hardcopy format.
(4) Hg emission record provisions (CEMS). The owner or operator must record for each hour the information required by this section for each affected unit using Hg CEMS in combination with flow rate, and (in certain cases) moisture, and diluent gas monitors, to determine Hg mass emissions and (if applicable) unit heat input.
(a) For Hg concentration during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) Date and hour;
(C) Hourly Hg concentration (µg/m3, rounded to the nearest tenth). For a particular pair of sorbent traps, this will be the flow-proportional average concentration for the data collection period;
(D) The bias-adjusted hourly average Hg concentration (µg/m3, rounded to the nearest tenth) if a bias adjustment factor is required, as provided in OAR 340-228-0629(3);
(E) Method of determination for hourly Hg concentration using Codes 1–55 in Table 4 to this division; and
(F) The percent monitor data availability (to the nearest tenth of a percent), calculated pursuant to **40 CFR 75.32**.
(b) For flue gas moisture content during unit operation (if required), as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions

determination (except where a default moisture value is used in accordance with **40 CFR 75.11(b)** or approved under **40 CFR 75.66**):
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) Date and hour;
(C) Hourly average moisture content of flue gas (percent, rounded to the nearest tenth). If the continuous moisture monitoring system consists of wet- and dry-basis oxygen analyzers, also record both the wet- and dry-basis oxygen hourly averages (in percent O_2, rounded to the nearest tenth);
(D) Percent monitor data availability (recorded to the nearest tenth of a percent) for the moisture monitoring system, calculated pursuant to **40 CFR 75.32**; and
(E) Method of determination for hourly average moisture percentage, using Codes 1–55 in Table 4 to this division.
(c) For diluent gas (O_2 or CO_2) concentration during unit operation (if required), as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) Date and hour;
(C) Hourly average diluent gas (O_2 or CO_2) concentration (in percent, rounded to the nearest tenth);
(D) Method of determination code for diluent gas (O_2 or CO_2) concentration data using Codes 1–55, in Table 4 to this division; and
(E) The percent monitor data availability (to the nearest tenth of a percent) for the O_2 or CO_2 monitoring system (if a separate O_2 or CO_2 monitoring system is used for heat input determination), calculated pursuant to **40 CFR 75.32**.
(d) For stack gas volumetric flow rate during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination, record the information required under paragraphs **40 CFR 75.57(c)(2)(i) through (c)(2)(vi)**.
(e) For Hg mass emissions during unit operation, as measured and reported from the certified primary monitoring system(s), certified redundant or nonredundant back-up monitoring system(s), or other approved method(s) of emissions determination:
(A) Date and hour;
(B) Hourly Hg mass emissions (pounds, rounded to three decimal places);
(C) Hourly Hg mass emissions (pounds, rounded to three decimal places), adjusted for bias if a bias adjustment factor is required, as provided in OAR 340-228-0629(3); and
(D) Identification code for emissions formula used to derive hourly Hg mass emissions from Hg concentration, flow rate and moisture data, as provided in **40 CFR 75.53**.
(5) Hg emission record provisions (sorbent trap systems). For the sorbent traps used in sorbent trap monitoring systems to quantify Hg concentration (including sorbent traps used for relative accuracy testing), the owner or operator must record for each hour the information required by this section.
(a) For Hg concentration during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) The ID number of the monitoring system in which each sorbent trap was used to collect Hg;
(C) The unique identification number of each sorbent trap;
(D) The beginning and ending dates and hours of the data collection period for each sorbent trap;

(E) Hourly Hg concentration (µg/dscm, rounded to the nearest tenth). For a particular pair of sorbent traps, this will be the flow-proportional average concentration for the data collection period;
(F) The bias-adjusted hourly average Hg concentration (µg/dscm, rounded to the nearest tenth) if a bias adjustment factor is required, as provided in OAR 340-228-0629(3);
(G) Method of determination for hourly average Hg concentration using Codes 1–55 in Table 4 to this division; and
(H) Percent monitor data availability (recorded to the nearest tenth of a percent), calculated pursuant to **40 CFR 75.32.**
(b) For flue gas moisture content during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination (except where a default moisture value is used in accordance with **40 CFR 75.11(b)** or approved under **40 CFR 75.66**), record the information required under paragraphs (4)(b)(A) through (E) of this rule.
(c) For diluent gas (O_2 or CO_2) concentration during unit operation (if required for heat input determination), record the information required under paragraphs (4)(c)(A) through (E) of this rule.
(d) For stack gas volumetric flow rate during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination, record the information required under **40 CFR 75.57(c)(2)(i) through (c)(2)(vi).**
(e) For Hg mass emissions during unit operation, as measured and reported from the certified primary monitoring system(s), certified redundant or nonredundant back-up monitoring system(s), or other approved method(s) of emissions determination, record the information required under subsection (4)(e) of this rule.
(f) Record the average flow rate of stack gas through each sorbent trap (in appropriate units, *e.g.*, liters/min, cc/min, dscm/min).
(g) Record the dry gas meter reading (in dscm, rounded to the nearest hundredth), at the beginning and end of the collection period and at least once in each unit operating hour during the collection period.
(h) Calculate and record the ratio of the bias-adjusted stack gas flow rate to the sample flow rate, as described in OAR 340-228-0627(11)(b).
(i) Information documenting the results of the required leak checks;
(j) The analysis of the Hg collected by each sorbent trap; and
(k) Information documenting the results of the other applicable quality control procedures in OAR 340-228-0617, 0623, and 0627.
(6) General recordkeeping provisions for specific situations. Except as otherwise provided in **40 CFR 75.34(d)**, the owner or operator must record:
(a) Parametric data which demonstrate, for each hour of missing Hg emission data, the proper operation of the add-on emission controls, as described in the quality assurance/quality control program for the unit. The parametric data must be maintained on site and must be submitted, upon request, to the Department.
(b) A flag indicating, for each hour of missing Hg emission data, either that the add-on emission controls are operating properly, as evidenced by all parameters being within the ranges specified in the quality assurance/quality control program, or that the add-on emission controls are not operating properly.

340-228-0637
Reporting
(1) General reporting provisions.

(a) The owner or operator of an affected unit must comply with all reporting requirements in this section.
(b) The owner or operator of an affected unit must submit the following for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B):
(A) Initial certification and recertification applications in accordance with OAR 340-228-0621;
(B) Monitoring plans in accordance with section (2) of this rule; and
(C) Quarterly reports in accordance with section (4) of this rule.
(c) Quality assurance RATA reports. If requested by the Department, the owner or operator of an affected unit must submit the quality assurance RATA report for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B) by the later of 45 days after completing a quality assurance RATA or 15 days of receiving the request. The owner or operator must report the hardcopy information required by **40 CFR 75.59(a)(9)** and OAR 340-228-0635(2)(f) to the Department.
(d) Notifications. The owner or operator of an affected unit must submit written notice to the Department according to the provisions in **40 CFR 75.61** for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B).
(2) Monitoring plans. The owner or operator of a coal-fired electric generating unit must comply with the applicable requirements of subsections (2)(a) and (b) of this rule and **40 CFR 63.7521(b)**.
(a) The owner or operator of an affected unit must submit to the Department a complete, up-to-date monitoring plan file for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B), as follows: No later than 21 days prior to the commencement of initial certification testing; at the time of a certification or recertification application submission; and whenever an update of the monitoring plan is required, under **40 CFR 75.53**. In addition the information in **40 CFR 75.53(e)(1)**, the plan must include the type(s) of emission controls for Hg installed or to be installed, including specifications of whether such controls are pre-combustion, post-combustion, or integral to the combustion process; control equipment code, installation date, and optimization date; control equipment retirement date (if applicable); primary/secondary controls indicator; and an indicator for whether the controls are an original installation.
(b) The owner or operator of an affected unit must submit all of the information required under **40 CFR 75.53**, for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B), to the Department prior to initial certification. Thereafter, the owner or operator must submit information only if that portion of the monitoring plan is revised. The owner or operator must submit the required information as follows: no later than 21 days prior to the commencement of initial certification testing; with any certification or recertification application, if a monitoring plan change is associated with the recertification event; and within 30 days of any other event with which a monitoring plan change is associated, pursuant to **40 CFR 75.53(b)**.
(3) Certification applications. The owner or operator must submit an application to the Department within 45 days after completing all initial certification or recertification tests required under OAR 340-228-0621, including the information required under **40 CFR 75.63**.
(4) Quarterly reports. The owner or operator must submit quarterly reports, as follows:
(a) Submission. Quarterly reports must be submitted, beginning with the calendar quarter containing the compliance date in OAR 340-228-0609(2). The owner or operator must report the data and information in this subsection and the applicable compliance certification information in subsection (4)(b) of this rule to the Department quarterly. Each report must be submitted to the Department within 30 days

following the end of each calendar quarter. Each report must include the date of report generation and the following information for each affected unit or group of units monitored at a common stack.
(A) The facility information in **40 CFR 75.64(a)(3)**; and
(B) The information and hourly data required in OAR 340-228-0635(1) and (2), except for:
(i) Descriptions of adjustments, corrective action, and maintenance;
(ii) Other information such as field data sheets, lab analyses, quality control plan;
(iii) For units with add-on Hg emission controls, the parametric information in OAR 340-228-0635(6);
(iv) Information required by **40 CFR 75.57(h)** concerning the causes of any missing data periods and the actions taken to cure such causes;
(v) Hardcopy monitoring plan information required by **40 CFR 75.53**, OAR 340-228-0637(2), and hardcopy test data and results required by **40 CFR 75.59** and OAR 340-228-0635(2);
(vi) Records of flow polynomial equations and numerical values required by **40 CFR 75.59(a)(5)(vi)**;
(vii) Stratification test results required as part of RATAs;
(viii) Data and results of RATAs that are aborted or invalidated due to problems with the reference method or operational problems with the unit and data and results of linearity checks that are aborted or invalidated due to operational problems with the unit;
(ix) Supplementary RATA information required under **40 CFR 75.59(a)(7)** and OAR 340-228-0635(2)(e), except that:
(I) The applicable data elements under **40 CFR 75.59(a)(7)(ii)(A) through (T)** and under **40 CFR 75.59(a)(7)(iii)(A) through (M)** must be reported for flow RATAs at circular or rectangular stacks (or ducts) in which angular compensation for pitch and/or yaw angles is used (i.e. Method 2F and 2G in **appendixes A-1 and A-2 to 40 CFR part 60**), with or without wall effects adjustments;
(II) The applicable data elements under **40 CFR 75.59(a)(7)(ii)(A) through (T)** and under **40 CFR 75.59(a)(7)(iii)(A) through (M)** must be reported for any flow RATA run at a circular stack in which Method 2 in **appendices A–1 and A–2 to 40 CFR part 60** is used and a wall effects adjustment factor is determined by direct measurement;
(III) The data under **40 CFR 75.59(a)(7)(ii)(T)** must be reported for all flow RATAs at circular stacks in which Method 2 in **appendices A–1 and A–2 to 40 CFR part 60** is used and a default wall effects adjustment factor is applied; and
(IV) The data under **40 CFR 75.59(a)(7)(ix)(A) through (F)** must be reported for all flow RATAs at rectangular stacks or ducts in which Method 2 in **appendices A–1 and A–2 to 40 CFR part 60** is used and a wall effects adjustment factor is applied.
(x) For units using sorbent trap monitoring systems, the hourly dry gas meter readings taken between the initial and final meter readings for the data collection period;
(C) Pounds of Hg emitted during quarter and cumulative pounds of Hg emitted in the year-to-date (rounded to the nearest thousandth);
(D) Reporting data.
(i) The owner or operator of a coal-fired electric generating unit that does not meet the applicable compliance date set forth in OAR 340-228-0609(2) for any monitoring system under OAR 340-228-0609(1)(a) must, for each monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for heat input, inlet Hg, and any other parameters required to determine heat input and Hg inlet.
(ii) On and after January 1, 2018, the owner or operator of a coal-fired electric generating unit must submit monthly and 12-month rolling average mercury emissions per trillion Btu of energy input and/or mercury capture efficiency, for each month in the calendar quarter.

(E) Unit or stack operating hours for quarter, cumulative unit or stack operating hours for year-to-date; and
(F) Reporting period heat input (if applicable) and cumulative, year-to-date heat input.
(b) Compliance certification.
(A) The owner or operator must certify that the monitoring plan information in each quarterly report (*i.e.*, component and system identification codes, formulas, etc.) represent current operating conditions for the affected unit(s)
(B) The owner or operator must submit and sign a compliance certification in support of each quarterly emissions monitoring report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification must state that:
(i) The monitoring data submitted were recorded in accordance with the applicable requirements of OAR 340-228-0609 through 0637 and **40 CFR part 75**, including the quality assurance procedures and specifications; and
(ii) With regard to a unit with add-on Hg emission controls, that for all hours where data are substituted in accordance with OAR 340-228-0631(2), the add-on emission controls were operating within the range of parameters listed in the quality assurance plan for the unit, and that the substitute values do not systematically underestimate Hg emissions.
(5) Reporting data prior to initial certification. If, by the applicable compliance date under OAR 340-228-0609(2), the owner or operator of a coal-fired electric generating unit has not successfully completed all required certification tests for any monitoring system(s), he or she must determine, record and report hourly data prior to initial certification using one of the following procedures, for the monitoring system(s) that are uncertified:
(a) For Hg concentration and flow monitoring systems, report the maximum potential Hg concentration of Hg as defined in OAR 340-228-0602(25) and the maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A to 40 CFR part 75**; or
(b) For any unit, report data from the reference methods in OAR 340-228-0602(33) or in **40 CFR 75.22**; or
(c) For any unit that is required to report heat input, report (as applicable) the maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A** to **40 CFR part 75**, the maximum potential CO_2 concentration, as defined in section 2.1.3.1 of **appendix A** to **40 CFR part 75**, the minimum potential O_2 concentration, as defined in section 2.1.3.2 of **appendix A** to **40 CFR part 75**, and the minimum potential percent moisture, as defined in section 2.1.5 of **appendix A** to **40 CFR part 75**.

~~**340-228-0608**~~
~~**Computation of Time**~~
~~(1) Unless otherwise stated, any time period scheduled, under the Hg Budget Trading Program, to begin on the occurrence of an act or event must begin on the day the act or event occurs.~~
~~(2) Unless otherwise stated, any time period scheduled, under the Hg Budget Trading Program, to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs.~~
~~(3) Unless otherwise stated, if the final day of any time period, under the Hg Budget Trading Program, falls on a weekend or a State or Federal holiday, the time period will be extended to the next business day.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0610~~
~~Appeal Procedures~~
~~The appeal procedures for decisions of the Administrator under the Hg Budget Trading Program shall be the procedures set forth in 40 CFR part 78. The terms "40 CFR part 60 subpart HHHH," "40 CFR 60.4141(b)(2) or (c)(2)," "40 CFR 60.4154," "40 CFR 60.4156," "40 CFR 60.4161," "40 CFR 60.4175," "Hg allowances," "Hg Allowance Tracking System Account," "Hg designated representative," "Hg authorized account representative," and "40 CFR 60.4106" apply instead of the terms "subparts AA through II of part 96 of this chapter," "Sec. 96.141(b)(2) or (c)(2)," "Sec. 96.154," "Sec. 96.156," "Sec. 96.161," "Sec. 96.175," "CAIR NOX allowances," "CAIR NOX Allowance Tracking System account," "CAIR designated representative," "CAIR authorized account representative," and "Sec. 96.106.:~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Hg Designated Representative for Hg Budget Sources~~

~~340-228-0612~~
~~Authorization and Responsibilities of Hg Designated Representative~~
~~(1) Except as provided under OAR 340-228-0614, each Hg Budget source, including all Hg Budget units at the source, must have one and only one Hg designated representative, with regard to all matters under the Hg Budget Trading Program concerning the source or any Hg Budget unit at the source.~~
~~(2) The Hg designated representative of the Hg Budget source must be selected by an agreement binding on the owners and operators of the source and all Hg Budget units at the source and must act in accordance with the certification statement in OAR 340-228-0618(1)(d)(D).~~
~~(3) Upon receipt by the Administrator of a complete certificate of representation under OAR 340-228-0618, the Hg designated representative of the source must represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the Hg Budget source represented and each Hg Budget unit at the source in all matters pertaining to the Hg Budget Trading Program, notwithstanding any agreement between the Hg designated representative and such owners and operators. The owners and operators must be bound by any decision or order issued to the Hg designated representative by the Department, the Administrator, or a court regarding the source or unit.~~
~~(4) No Hg Budget permit will be issued, no emissions data reports will be accepted, and no Hg Allowance Tracking System account will be established for a Hg Budget unit at a source, until the Administrator has received a complete certificate of representation under OAR 340-228-0618 for a Hg designated representative of the source and the Hg Budget units at the source.~~
~~(5)(a) Each submission under the Hg Budget Trading Program must be submitted, signed, and certified by the Hg designated representative for each Hg Budget source on behalf of which the submission is made. Each such submission must include the following certification statement by the Hg designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its~~

~~attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."~~

~~(b) The Department and the Administrator will accept or act on a submission made on behalf of owner or operators of a Hg Budget source or a Hg Budget unit only if the submission has been made, signed, and certified in accordance with subsection (5)(a) of this rule.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0614~~

~~Alternate Hg Designated Representative~~

~~(1) A certificate of representation under OAR 340-228-0618 may designate one and only one alternate Hg designated representative, who may act on behalf of the Hg designated representative. The agreement by which the alternate Hg designated representative is selected must include a procedure for authorizing the alternate Hg designated representative to act in lieu of the Hg designated representative.~~

~~(2) Upon receipt by the Administrator of a complete certificate of representation under OAR 340-228-0618, any representation, action, inaction, or submission by the alternate Hg designated representative will be deemed to be a representation, action, inaction, or submission by the Hg designated representative.~~

~~(3) Except in this section and OAR 340-228-0602, 0612(1) and (4), 0616, 0618, 0638, and 0670, whenever the term "Hg designated representative" is used in this rule, the term will be construed to include the Hg designated representative or any alternate Hg designated representative.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0616~~

~~Changing Hg Designated Representative and Alternate Hg Designated Representative; Changes in Owners and Operators~~

~~(1) Changing Hg designated representative. The Hg designated representative may be changed at any time upon receipt by the Administrator of a superseding complete certificate of representation under OAR 340-228-0618. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous Hg designated representative before the time and date when the Administrator receives the superseding certificate of representation will be binding on the new Hg designated representative and the owners and operators of the Hg Budget source and the Hg Budget units at the source.~~

~~(2) Changing alternate Hg designated representative. The alternate Hg designated representative may be changed at any time upon receipt by the Administrator of a superseding complete certificate of representation under OAR 340-228-0618. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate Hg designated representative before the time and date when the Administrator receives the superseding certificate of representation will be binding on the~~

new alternate Hg designated representative and the owners and operators of the Hg Budget source and the Hg Budget units at the source.
(3) Changes in owners and operators.
(a) In the event a new owner or operator of a Hg Budget source or a Hg Budget unit is not included in the list of owners and operators in the certificate of representation OAR 340-228-0618, such new owner or operator will be deemed to be subject to and bound by the certificate of representation, the representations, actions, inactions, and submissions of the Hg designated representative and any alternate Hg designated representative of the source or unit, and the decisions and orders of the Department, the Administrator, or a court, as if the new owner or operator were included in such list.
(b) Within 30 days following any change in the owners and operators of a Hg Budget source or a Hg Budget unit, including the addition of a new owner or operator, the Hg designated representative or any alternate Hg designated representative must submit a revision to the certificate of representation under OAR 340-228-0618 amending the list of owners and operators to include the change.
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

340-228-0618
Certificate of Representation
(1) A complete certificate of representation for a Hg designated representative or an alternate Hg designated representative must include the following elements in a format prescribed by the Administrator:
(a) Identification of the Hg Budget source, and each Hg Budget unit at the source, for which the certificate of representation is submitted.
(b) The name, address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the Hg designated representative and any alternate Hg designated representative.
(c) A list of the owners and operators of the Hg Budget source and of each Hg Budget unit at the source.
(d) The following certification statements by the Hg designated representative and any alternate Hg designated representative:
(A) "I certify that I was selected as the Hg designated representative or alternate Hg designated representative, as applicable, by an agreement binding on the owners and operators of the source and each Hg Budget unit at the source."
(B) "I certify that I have all the necessary authority to carry out my duties and responsibilities under the Hg Budget Trading Program on behalf of the owners and operators of the source and of each Hg Budget unit at the source and that each such owner and operator shall be fully bound by my representations, actions, inactions, or submissions."
(C) "I certify that the owners and operators of the source and of each Hg Budget unit at the source shall be bound by any order issued to me by the Administrator, the Department, or a court regarding the source or unit."
(D) "Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, a Hg Budget unit, or where a customer purchases power from a Hg Budget unit under a life of the unit, firm power contractual arrangement, I certify that: I have given a written notice of my selection as the `Hg designated representative' or `alternate Hg designated representative,' as applicable, and of the agreement by which I was selected to each owner and operator of the source and of each Hg Budget unit at the source; and Hg allowances and proceeds of transactions involving Hg allowances will be deemed

~~to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement, except that, if such multiple holders have expressly provided for a different distribution of Hg allowances by contract, Hg allowances and proceeds of transactions involving Hg allowances will be deemed to be held or distributed in accordance with the contract."~~

~~(e) The signature of the Hg designated representative and any alternate Hg designated representative and the dates signed.~~

~~(2) Unless otherwise required by the Department or the Administrator, documents of agreement referred to in the certificate of representation must not be submitted to the Department or the Department. Neither the Department or the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0620~~

~~Objections Concerning Hg Designated Representative~~

~~(1) Once a complete certificate of representation under OAR 340-228-0618 has been submitted and received, the Department and the Administrator will rely on the certificate of representation unless and until a superseding complete certificate of representation under OAR 340-228-0618 is received by the Administrator.~~

~~(2) Except as provided in OAR 340-228-0616(1) or (2), no objection or other communication submitted to the Department or the Administrator concerning the authorization, or any representation, action, inaction, or submission, of the Hg designated representative shall affect any representation, action, inaction, or submission of the Hg designated representative or the finality of any decision or order by the Department or the Administrator under the Hg Budget Trading Program.~~

~~(3) Neither the Department nor the Administrator will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of any Hg designated representative, including private legal disputes concerning the proceeds of Hg allowance transfers.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Permits~~

~~340-228-0622~~

~~General Hg Budget Trading Program Permit Requirements~~

~~(1) For each Hg Budget source required to have a title V operating permit, such permit must include a Hg Budget permit administered by the Department for the title V operating permit. The Hg Budget portion of the title V permit must be administered in accordance with the Department's title V operating permits regulations, except as provided otherwise by this section and OAR 340-228-0624 through 0630.~~

~~(2) Each Hg Budget permit must contain, with regard to the Hg Budget source and the Hg Budget units at the source covered by the Hg Budget permit, all applicable Hg Budget Trading Program requirements and must be a complete and separable portion of the title V operating permit.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~**340-228-0624**~~
~~**Submission of Hg Budget Permit Applications**~~
~~(1) Duty to apply. The Hg designated representative of any Hg Budget source required to have a title V operating permit must submit to the Department a complete Hg Budget permit application under OAR 340-228-0626 for the source covering each Hg Budget unit at the source at least 18 months (or such lesser time provided by the Department) before the later of January 1, 2010 or the date on which the Hg Budget unit commences operation.~~
~~(2) Duty to Reapply. For a Hg Budget source required to have a title V operating permit, the Hg designated representative must submit a complete Hg Budget permit application under OAR 340-228-0626 for the source covering each Hg Budget unit at the source to renew the Hg Budget permit in accordance with the Department's title V operating permits regulations addressing permit renewal.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~**340-228-0626**~~
~~**Information Requirements for Hg Budget Permit Applications**~~
~~A complete Hg Budget permit application must include the following elements concerning the Hg Budget source for which the application is submitted, in a format prescribed by the Department:~~
~~(1) Identification of the Hg Budget source;~~
~~(2) Identification of each Hg Budget unit at the Hg Budget source; and~~
~~(3) The standard requirements under OAR 340-228-0606.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~**340-228-0628**~~
~~**Hg Budget Permit Contents and Term**~~
~~(1) Each Hg Budget permit will contain, in a format prescribed by the Department, all elements required for a complete Hg Budget permit application under OAR 340-228-0626.~~
~~(2) Each Hg Budget permit is deemed to incorporate automatically the definitions of terms under OAR 340-228-0602 and, upon recordation by the Administrator under OAR 340-228-0638 through 0656, every allocation, transfer, or deduction of a Hg allowance to or from the compliance account of the Hg Budget source covered by the permit.~~
~~(3) The term of the Hg Budget permit will be set by the Department, as necessary to facilitate coordination of the renewal of the Hg Budget permit with issuance, revision, or renewal of the Hg Budget source's title V operating permit.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~**340-228-0630**~~

~~**Hg Budget Permit Revisions**~~

~~Except as provided in OAR 340-228-0628(2), the Department will revise the Hg Budget permit, as necessary, in accordance with the Department's title V operating permits regulations addressing permit revisions.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~**Hg Allowance Allocations**~~

~~**340-228-0632**~~

~~**State Trading Budget**~~

~~Oregon's trading budget for annual allocations of Hg allowances for the control periods in 2010 through 2017 is 2,432 ounces per year and in 2018 and thereafter is 960 ounces per year.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~**340-228-0634**~~

~~**Timing Requirements for Hg Allowance Allocations**~~

~~(1) By November 17, 2006, the Department will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with OAR 340-228-0636(1) and (2), for the control periods in 2010, 2011, and 2012.~~

~~(2)(a) By October 31, 2009 and October 31 of each year thereafter through 2013, the Department will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with OAR 340-228-0636(1) and (2), for the control period in the fourth year after the year of the applicable deadline for submission under this section.~~

~~(b) If the Department fails to submit to the Administrator the Hg allowance allocations in accordance with subsection (2)(a) of this rule for the control periods in 2010 through 2017, the Administrator will assume that the allocations of Hg allowances for the applicable control period are the same as for the control period that immediately precedes the applicable control period.~~

~~(3)(a) By October 31, 2010 and October 31 of each year thereafter through 2017, the Department will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with OAR 340-228-0636(1), (3), and (4), for the control period in the year of the applicable deadline for submission under this section.~~

~~(b) If the Department fails to submit to the Administrator the Hg allowance allocations in accordance with subsection (3)(a) of this rule, the Administrator will assume that the allocations of Hg allowances for the applicable control period are the same as for the control period that immediately precedes the applicable control period, except that, any Hg Budget unit that would otherwise be allocated Hg allowances under OAR 340-228-0636(1) and (2), as well as under OAR 340-228-0636(1), (3), and (4), for the applicable control period will be assumed to be allocated no Hg allowances under OAR 340-228-0636(1), (3), and (4) for the applicable control period.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~**340-228-0636**~~
~~**Hg Allowance Allocations**~~
~~(1)(a) The baseline heat input (in MMBtu) used with respect to Hg allowance allocations under section (2) of this rule for each Hg Budget units will be:~~
~~(A) For units commencing operation before January 1, 2001, the average of the three highest amounts of the unit's adjusted control period heat input for 2000 through 2004, with the adjusted control period heat input for each year calculated as the sum of the following:~~
~~(i) Any portion of the unit's control period heat input for the year that results from the unit's combustion of lignite, multiplied by 3.0;~~
~~(ii) Any portion of the unit's control period heat input for the year that results from the unit's combustion of subbituminous coal, multiplied by 1.25; and~~
~~(iii) Any portion of the unit's control period heat input for the year that is not covered by subparagraph (1)(a)(A)(i) or (ii) of this rule, multiplied by 1.0.~~
~~(B) For units commencing operation on or after January 1, 2001 and operating each calendar year during a period of 5 or more consecutive calendar years, the average of the 3 highest amounts of the unit's total converted control period heat input over the first such 5 years.~~
~~(b)(A) A unit's control period heat input for a calendar year under paragraph (1)(a)(A) of this rule, and a unit's total ounces of Hg emissions during a calendar year under subsection (3)(c) of this rule, will be determined in accordance with 40 CFR part 75, to the extent the unit was otherwise subject to the requirements of 40 CFR part 75 for the year, or will be based on the best available data reported to the Department for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR part 75. The unit's types and amounts of fuel combusted, under paragraph (1)(a)(A) of this rule, will be based on the best available data reported to the Department for the unit.~~
~~(B) A unit's converted control period heat input for a calendar year specified under paragraph (1)(a)(B) of this rule equals:~~
~~(i) Except as provided in paragraph (1)(b)(B)(ii) or (iii) of this rule, the control period gross electrical output of the generator or generators served by the unit multiplied by 7,900 Btu/kWh and divided by 1,000,000 Btu/MMBtu, provided that if a generator is served by 2 or more units, then the gross electrical output of the generator will be attributed to each unit in proportion to the unit's share of the total control period heat input of such units for the year;~~
~~(ii) For a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the total heat energy (in Btu) of the steam produced by the boiler during the control period, divided by 0.8 and by 1,000,000 Btu/MMBtu; or~~
~~(iii) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the control period gross electrical output of the enclosed device comprising the compressor, combustor, and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the control period divided by 0.8, and with the sum divided by 1,000,000 Btu/MMBtu.~~
~~(2) Existing unit Hg allocations.~~

~~(a) For each control period in 2010 through 2017, the Department shall allocate to the Hg Budget units in the State that have a baseline heat input (as determined under section (1) of this rule) a total amount of Hg allowances equal to 90 percent of the amount of ounces of Hg emissions in the State trading budget under OAR 340-228-0632.~~

~~(b) For each control period in 2018 and thereafter, the Department shall not allocate any Hg allowances to Hg Budget units in the State.~~

~~(c) The Department will allocate Hg allowances to each Hg Budget unit under subsection (2)(a) of this rule in an amount determined by multiplying the total amount of Hg allowances allocated under subsection (2)(a) of this rule by the ratio of the baseline heat input of such Hg Budget unit to the total amount of baseline heat input of all such Hg Budget units in the State and rounding to the nearest whole allowance as appropriate.~~

~~(d) For each control period in 2013 through 2017, the Department will not allocate more than 1280 ounces to any single Hg Budget unit.~~

~~(f) If any unallocated Hg allowances remain, an amount of Hg allowances equal to the total amount of such remaining unallocated Hg allowances will be permanently retired.~~

~~(3) New unit set-aside. For each control period in 2010 and thereafter, the Department will allocate Hg allowances to Hg Budget units in the State that commenced operation on or after January 1, 2001 and do not yet have a baseline heat input (as determined under section (1) of this rule), in accordance with the following procedures:~~

~~(a) The Department will establish a separate new unit set-aside for each control period according to paragraph (3)(a)(A) and (B) of this rule.~~

~~(A) For each control period in 2010 through 2017, the new unit set-aside will be allocated Hg allowances equal to 10 percent of the amount of ounces of Hg emissions in the State trading budget under OAR 340-228-0632.~~

~~(B) For each control period in 2018 and thereafter, the new unit set-aside will not be allocated any Hg allowances.~~

~~(b) The Hg designated representative of such a Hg Budget unit may submit to the Department a request, in a format specified by the Department, to be allocated Hg allowances, starting with the later of the control period in 2010 or the first control period after the control period in which the Hg Budget unit commences commercial operation and until the first control period for which the unit is allocated Hg allowances under section (2) of this rule. The Hg allowance allocation request must be submitted on or before July 1 of the first control period for which the Hg allowances are requested and after the date on which the Hg Budget unit commences commercial operation.~~

~~(c) In a Hg allowance allocation request under subsection (3)(b) of this rule, the Hg designated representative may request for a control period Hg allowances in an amount not exceeding the Hg Budget unit's total ounces of Hg emissions during the control period immediately before such control period.~~

~~(d) The Department will review each Hg allowance allocation request under subsection (3)(b) of this rule and will allocate Hg allowances for each control period pursuant to such request as follows:~~

~~(A) The Department will accept an allowance allocation request only if the request meets, or is adjusted by the Department as necessary to meet, the requirements of subsections (3)(b) and (c) of this rule.~~

~~(B) On or after July 1 of the control period, the Department will determine the sum of the Hg allowances requested (as adjusted under paragraph (3)(d)(A) of this rule) in all allowance allocation requests accepted under paragraph (3)(d)(A) of this rule for the control period.~~

~~(C) If the amount of Hg allowances in the new unit set-aside for the control period is greater than or equal to the sum under paragraph (3)(d)(B) of this rule, then the Department will allocate the amount of Hg allowances requested (as adjusted under paragraph (3)(d)(A) of this rule) to each Hg Budget unit covered by an allowance allocation request accepted under paragraph (3)(d)(A) of this rule.~~
~~(D) If the amount of Hg allowances in the new unit set-aside for the control period is less than the sum under paragraph (3)(d)(B) of this rule, then the Department will allocate to each Hg Budget unit covered by an allowance allocation request accepted under paragraph (3)(d)(A) of this rule the amount of the Hg allowances requested (as adjusted under paragraph (3)(d)(A) of this rule), multiplied by the amount of Hg allowances in the new unit set-aside for the control period, divided by the sum determined under paragraph (3)(d)(B) of this rule, rounded to the nearest whole allowance as appropriate.~~
~~(E) The Department will notify each Hg designated representative that submitted an allowance allocation request of the amount of Hg allowances (if any) allocated for the control period to the Hg Budget unit covered by the request.~~
~~(F) For each control period in 2018 and thereafter, the Department will not allocate to any single Hg Budget unit.~~
~~(e) If, after completion of the procedures under subsection (3)(d) of this rule for a control period, any unallocated Hg allowances remain in the new unit set-aside for the control period, an amount of Hg allowances equal to the total amount of such remaining unallocated Hg allowances will be permanently retired.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Hg Allowance Tracking System~~

~~340-228-0638~~
~~Establishment of Accounts~~

~~(1) Compliance accounts. Upon receipt of a complete certificate of representation under OAR 340-228-0618, the Administrator will establish a compliance account for the Hg Budget source for which the certificate of representation was submitted unless the source already has a compliance account.~~
~~(2) General accounts.~~
~~(a) Application for general account.~~
~~(A) Any person may apply to open a general account for the purpose of holding and transferring Hg allowances. An application for a general account may designate one and only one Hg authorized account representative and one and only one alternate Hg authorized account representative who may act on behalf of the Hg authorized account representative. The agreement by which the alternate Hg authorized account representative is selected must include a procedure for authorizing the alternate Hg authorized account representative to act in lieu of the Hg authorized account representative.~~
~~(B) A complete application for a general account must be submitted to the Administrator and must include the following elements in a format prescribed by the Administrator:~~
~~(i) Name, mailing address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the Hg authorized account representative and any alternate Hg authorized account representative;~~
~~(ii) Organization name and type of organization, if applicable;~~

~~(iii) A list of all persons subject to a binding agreement for the Hg authorized account representative and any alternate Hg authorized account representative to represent their ownership interest with respect to the Hg allowances held in the general account;~~

~~(iv) The following certification statement by the Hg authorized account representative and any alternate Hg authorized account representative: "I certify that I was selected as the Hg authorized account representative or the alternate Hg authorized account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to Hg allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the Hg Budget Trading Program on behalf of such persons and that each such person must be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by the Administrator or a court regarding the general account."~~

~~(v) The signature of the Hg authorized account representative and any alternate Hg authorized account representative and the dates signed.~~

~~(C) Unless otherwise required by the Department or the Administrator, documents of agreement referred to in the application for a general account shall not be submitted to the Department or the Administrator. Neither the Department nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.~~

~~(b) Authorization of Hg authorized account representative.~~

~~(A) Upon receipt by the Administrator of a complete application for a general account under section (1) of this rule:~~

~~(i) The Administrator will establish a general account for the person or persons for whom the application is submitted.~~

~~(ii) The Hg authorized account representative and any alternate Hg authorized account representative for the general account must represent and, by his or her representations, actions, inactions, or submissions, legally bind each person who has an ownership interest with respect to Hg allowances held in the general account in all matters pertaining to the Hg Budget Trading Program, notwithstanding any agreement between the Hg authorized account representative or any alternate Hg authorized account representative and such person. Any such person must be bound by any order or decision issued to the Hg authorized account representative or any alternate Hg authorized account representative by the Administrator or a court regarding the general account.~~

~~(iii) Any representation, action, inaction, or submission by any alternate Hg authorized account representative shall be deemed to be a representation, action, inaction, or submission by the Hg authorized account representative.~~

~~(B) Each submission concerning the general account must be submitted, signed, and certified by the Hg authorized account representative or any alternate Hg authorized account representative for the persons having an ownership interest with respect to Hg allowances held in the general account. Each such submission must include the following certification statement by the Hg authorized account representative or any alternate Hg authorized account representative: "I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the Hg allowances held in the general account. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."~~

~~(C) The Administrator will accept or act on a submission concerning the general account only if the submission has been made, signed, and certified in accordance with paragraph (2)(b)(B) of this rule.~~
~~(c) Changing Hg authorized account representative and alternate Hg authorized account representative; changes in persons with ownership interest.~~
~~(A) The Hg authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under section (1) of this rule. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous Hg authorized account representative before the time and date when the Administrator receives the superseding application for a general account shall be binding on the new Hg authorized account representative and the persons with an ownership interest with respect to the Hg allowances in the general account.~~
~~(B) The alternate Hg authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under section (1) of this rule. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate Hg authorized account representative before the time and date when the Administrator receives the superseding application for a general account is binding on the new alternate Hg authorized account representative and the persons with an ownership interest with respect to the Hg allowances in the general account.~~
~~(C)(i) In the event a new person having an ownership interest with respect to Hg allowances in the general account is not included in the list of such persons in the application for a general account, such new person is deemed to be subject to and bound by the application for a general account, the representation, actions, inactions, and submissions of the Hg authorized account representative and any alternate Hg authorized account representative of the account, and the decisions and orders of the Administrator or a court, as if the new person were included in such list.~~
~~(ii) Within 30 days following any change in the persons having an ownership interest with respect to Hg allowances in the general account, including the addition of persons, the Hg authorized account representative or any alternate Hg authorized account representative must submit a revision to the application for a general account amending the list of persons having an ownership interest with respect to the Hg allowances in the general account to include the change.~~
~~(d) Objections concerning Hg authorized account representative.~~
~~(A) Once a complete application for a general account under subsection (2)(a) of this rule has been submitted and received, the Administrator will rely on the application unless and until a superseding complete application for a general account under subsection (2)(a) of this rule is received by the Administrator.~~
~~(B) Except as provided in paragraph (2)(c)(A) or (B) of this rule, no objection or other communication submitted to the Administrator concerning the authorization, or any representation, action, inaction, or submission of the Hg authorized account representative or any alternative Hg authorized account representative for a general account will affect any representation, action, inaction, or submission of the Hg authorized account representative or any alternative Hg authorized account representative or the finality of any decision or order by the Administrator under the Hg Budget Trading Program.~~
~~(C) The Administrator will not adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of the Hg authorized account representative or any alternative Hg authorized account representative for a general account, including private legal disputes concerning the proceeds of Hg allowance transfers.~~

~~(3) Account identification. The Administrator will assign a unique identifying number to each account established under section (1) or (2) of this rule.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0640~~
~~Responsibilities of Hg Authorized Account Representative~~
~~Following the establishment of a Hg Allowance Tracking System account, all submissions to the Administrator pertaining to the account, including, but not limited to, submissions concerning the deduction or transfer of Hg allowances in the account, must be made only by the Hg authorized account representative for the account.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0642~~
~~Recordation of Hg Allowance Allocations~~
~~(1) By December 1, 2006, the Administrator will record in the Hg Budget source's compliance account the Hg allowances allocated for the Hg Budget units at a source, as submitted by the Department in accordance with OAR 340-228-0634(1), for the control periods in 2010, 2011, and 2012.~~
~~(2) By December 1, 2009, the Administrator will record in the Hg Budget source's compliance account the Hg allowances allocated for the Hg Budget units at the source, as submitted by the Department or as determined by the Administrator in accordance with OAR 340-228-0634(2), for the control period in 2013.~~
~~(3) In 2010 and each year thereafter through 2013, after the Administrator has made all deductions (if any) from a Hg Budget source's compliance account under OAR 340-228-0644, the Administrator will record in the Hg Budget source's compliance account the Hg allowances allocated for the Hg Budget units at the source, as submitted by the Department or determined by the Administrator in accordance with OAR 340-228-0634(2), for the control period in the fourth year after the year of the control period for which such deductions were or could have been made.~~
~~(4) By December 1, 2010 and December 1 of each year thereafter through 2017, the Administrator will record in the Hg Budget source's compliance account the Hg allowances allocated for the Hg Budget units at the source, as submitted by the Department or determined by the Administrator in accordance with OAR 340-228-0634(3), for the control period in the year of the applicable deadline for recordation under this section.~~
~~(5) Serial numbers for allocated Hg allowances. When recording the allocation of Hg allowances for a Hg Budget unit in a compliance account, the Administrator will assign each Hg allowance a unique identification number that will include digits identifying the year of the control period for which the Hg allowance is allocated.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0644~~

~~Compliance with Hg Budget Emissions Limitation~~

~~(1) Allowance transfer deadline. The Hg allowances are available to be deducted for compliance with a source's Hg Budget emissions limitation for a control period in a given calendar year only if the Hg allowances:~~

~~(a) Were allocated for the control period in the year or a prior year;~~

~~(b) Are held in the compliance account as of the allowance transfer deadline for the control period or are transferred into the compliance account by a Hg allowance transfer correctly submitted for recordation under OAR 340-228-0652 through 0656 by the allowance transfer deadline for the control period; and~~

~~(c) Are not necessary for deductions for excess emissions for a prior control period under OAR 340-228-0644(4)(a).~~

~~(2) Deductions for compliance. Following the recordation, in accordance with OAR 340-228-0652 through 0656, of Hg allowance transfers submitted for recordation in a source's compliance account by the allowance transfer deadline for a control period, the Administrator will deduct from the compliance account Hg allowances available under section (1) of this rule in order to determine whether the source meets the Hg Budget emissions limitation for the control period, as follows:~~

~~(a) Until the amount of Hg allowances deducted equals the number of ounces of total Hg emissions, determined in accordance with OAR 340-228-0658 through 0662 and 340-228-0664 through 0670, from all Hg Budget units at the source for the control period; or~~

~~(b) If there are insufficient Hg allowances to complete the deductions in subsection (2)(a) of this rule, until no more Hg allowances available under section (1) of this rule remain in the compliance account.~~

~~(3) Identification of Hg allowances by serial number.~~

~~(a) The Hg authorized account representative for a source's compliance account may request that specific Hg allowances, identified by serial number, in the compliance account be deducted for emissions or excess emissions for a control period in accordance with section (2) or (4) of this rule. Such request must be submitted to the Administrator by the allowance transfer deadline for the control period and include, in a format prescribed by the Administrator, the identification of the Hg Budget source and the appropriate serial numbers.~~

~~(b) First-in, first-out. The Administrator will deduct Hg allowances under section (2) or (4) of this rule from the source's compliance account, in the absence of an identification or in the case of a partial identification of Hg allowances by serial number under subsection (3)(a) of this section, on a first-in, first-out (FIFO) accounting basis in the following order:~~

~~(A) Any Hg allowances that were allocated to the units at the source, in the order of recordation; and then~~

~~(B) Any Hg allowances that were allocated to any unit and transferred and recorded in the compliance account pursuant to OAR 340-228-0652 through 0656, in the order of recordation.~~

~~(4) Deductions for excess emissions.~~

~~(a) After making the deductions for compliance under section (2) of this rule for a control period in a calendar year in which the Hg Budget source has excess emissions, the Administrator will deduct from the source's compliance account an amount of Hg allowances, allocated for the control period in the immediately following calendar year, equal to 3 times the number of ounces of the source's excess emissions.~~

~~(b) Any allowance deduction required under subsection (4)(1) will not affect the liability of the owners and operators of the Hg Budget source or the Hg Budget units at the source for any fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same violation, as ordered under the Clean Air Act or applicable State law.~~

~~(5) Recordation of deductions. The Administrator will record in the appropriate compliance account all deductions from such an account under section (2) or (4) of this rule.~~
~~(6) Administrator's action on submissions.~~
~~(a) The Administrator may review and conduct independent audits concerning any submission under the Hg Budget Trading Program and make appropriate adjustments of the information in the submissions.~~
~~(b) The Administrator may deduct Hg allowances from or transfer Hg allowances to a source's compliance account based on the information in the submissions, as adjusted under subsection (6)(a) of this rule.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0646~~
~~Banking~~
~~(1) Hg allowances may be banked for future use or transfer in a compliance account or a general account in accordance with section (2) of this rule.~~
~~(2) Any Hg allowance that is held in a compliance account or a general account will remain in such account unless and until the Hg allowance is deducted or transferred under OAR 340-228-0644, 0648, 0652 through 0656.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0648~~
~~Account Error~~
~~The Administrator may, at his or her sole discretion and on his or her own motion, correct any error in any Hg Allowance Tracking System account. Within 10 business days of making such correction, the Administrator will notify the Hg authorized account representative for the account.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0650~~
~~Closing of General Accounts~~
~~(1) The Hg authorized account representative of a general account may submit to the Administrator a request to close the account, which must include a correctly submitted allowance transfer under OAR 340-228-0652 through 0656 for any Hg allowances in the account to one or more other Hg Allowance Tracking System accounts.~~
~~(2) If a general account has no allowance transfers in or out of the account for a 12-month period or longer and does not contain any Hg allowances, the Administrator may notify the Hg authorized account representative for the account that the account will be closed following 20 business days after the notice is sent. The account will be closed after the 20-day period unless, before the end of the 20-day period, the Administrator receives a correctly submitted transfer of Hg allowances into the account under OAR 340-228-0652 through 0656 or a statement submitted by the Hg authorized account representative~~

~~demonstrating to the satisfaction of the Administrator good cause as to why the account should not be closed.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Hg Allowance Transfers~~

~~340-228-0652~~
~~Submission of Hg Allowance Transfers~~

~~A Hg authorized account representative seeking recordation of a Hg allowance transfer must submit the transfer to the Administrator. To be considered correctly submitted, the Hg allowance transfer must include the following elements, in a format specified by the Administrator:~~
~~(1) The account numbers for both the transferor and transferee accounts;~~
~~(2) The serial number of each Hg allowance that is in the transferor account and is to be transferred; and~~
~~(3) The name and signature of the Hg authorized account representative of the transferor account and the date signed.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0654~~
~~EPA Recordation~~

~~(1) Within 5 business days (except as provided in section (2) of this rule) of receiving a Hg allowance transfer, the Administrator will record a Hg allowance transfer by moving each Hg allowance from the transferor account to the transferee account as specified by the request, provided that:~~
~~(a) The transfer is correctly submitted under OAR 340-228-0652; and~~
~~(b) The transferor account includes each Hg allowance identified by serial number in the transfer.~~
~~(2) A Hg allowance transfer that is submitted for recordation after the allowance transfer deadline for a control period and that includes any Hg allowances allocated for any control period before such allowance transfer deadline will not be recorded until after the Administrator completes the deductions under OAR 340-228-0644 for the control period immediately before such allowance transfer deadline.~~
~~(3) Where a Hg allowance transfer submitted for recordation fails to meet the requirements of section (1) of this rule, the Administrator will not record such transfer.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0656~~
~~Notification~~

~~(1) Notification of recordation. Within 5 business days of recordation of a Hg allowance transfer under OAR 340-228-0654, the Administrator will notify the Hg authorized account representatives of both the transferor and transferee accounts.~~

(2) Notification of non-recordation. Within 10 business days of receipt of a Hg allowance transfer that fails to meet the requirements of OAR 340-228-0654(1), the Administrator will notify the Hg authorized account representatives of both accounts subject to the transfer of:
(a) A decision not to record the transfer, and
(b) The reasons for such nonrecordation.
(3) Nothing in this section shall preclude the submission of a Hg allowance transfer for recordation following notification of nonrecordation.
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

Monitoring and Reporting

340-228-0658
General Requirements
The owners and operators, and to the extent applicable, the Hg designated representative, of a Hg Budget unit, must comply with the monitoring, recordkeeping, and reporting requirements as provided in this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I**. For purposes of complying with such requirements, the definitions in OAR 340-228-0602 and in 40 CFR 72.2 shall apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR part 75 shall be deemed to refer to the terms "Hg Budget unit," "Hg designated representative," and "continuous emission monitoring system" (or "CEMS") respectively, as defined in OAR 340-228-0602. The owner or operator of a unit that is not a Hg Budget unit but that is monitored under **40 CFR 75.82(b)(2)(i)** must comply with the same monitoring, recordkeeping, and reporting requirements as a Hg Budget unit.
(1) Requirements for installation, certification, and data accounting. The owner or operator of each Hg Budget unit must:
(a) Install all applicable monitoring systems required under this rule and OAR 340-228-0660 through 0670 for monitoring Hg mass emissions and individual unit heat input (including all systems required to monitor Hg concentration, stack gas moisture content, stack gas flow rate, and CO2 or O2 concentration, as applicable, in accordance with **40 CFR 75.81** and **75.82**);
(b) Successfully complete all certification tests required under OAR 340-228-0660 and meet all other requirements of this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I** applicable to the monitoring systems under subsection (1)(a) of this rule; and
(c) Record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule.
(2) Compliance deadlines. The owner or operator must meet the monitoring system certification and other requirements of subsections (1)(a) and (b) of this rule on or before the following dates. The owner or operator must record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule on and after the following dates.
(a) For the owner or operator of a Hg Budget unit that commences commercial operation before July 1, 2008, by January 1, 2009.
(b) For the owner or operator of a Hg Budget unit that commences commercial operation on or after July 1, 2008, by the later of the following dates:
(A) January 1, 2009; or

~~(B) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation.~~

~~(c) For the owner or operator of a Hg Budget unit for which construction of a new stack or flue or installation of add-on Hg emission controls, a flue gas desulfurization system, a selective catalytic reduction system, or a compact hybrid particulate collector system is completed after the applicable deadline under subsection (2)(a) or (b) of this rule, by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack or flue, add-on Hg emissions controls, flue gas desulfurization system, selective catalytic reduction system, or compact hybrid particulate collector system.~~

~~(3) Reporting data.~~

~~(a) Except as provided in subsection (3)(b) of this rule, the owner or operator of a Hg Budget unit that does not meet the applicable compliance date set forth in section (2) of this rule for any monitoring system under subsection (1)(a) of this rule must, for each monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for Hg concentration, stack gas flow rate, stack gas moisture content, and any other parameters required to determine Hg mass emissions and heat input in accordance with **40 CFR 75.80(g)**.~~

~~(b) The owner or operator of a Hg Budget unit that does not meet the applicable compliance date set forth in subsection (2)(c) of this rule for any monitoring system under subsection (1)(a) must, for each such monitoring system, determine, record, and report substitute data using the applicable missing data procedures in **40 CFR part 75 subpart D**, in lieu of the maximum potential (or, as appropriate, minimum potential) values, for a parameter if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation under subsection (2)(c) of this rule.~~

~~(4) Prohibitions.~~

~~(a) No owner or operator of a Hg Budget unit shall use any alternative monitoring system, alternative reference method, or any other alternative to any requirement of this rule and OAR 340-228-0660 through 0670 without having obtained prior written approval in accordance with OAR 340-228-0668.~~

~~(b) No owner or operator of a Hg Budget unit shall operate the unit so as to discharge, or allow to be discharged, Hg emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I**.~~

~~(c) No owner or operator of a Hg Budget unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording Hg mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I**.~~

~~(d) No owner or operator of a Hg Budget unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved monitoring system under this rule, except under any one of the following circumstances:~~

~~(A) During the period that the unit is covered by an exemption under OAR 340-228-0605 that is in effect;~~

~~(B) The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I**, by the Department for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or~~

~~(C) The Hg designated representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with OAR 340-228-0660(3)(c)(A).~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~*Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06*~~

~~340-228-0660~~
~~Initial Certification and Recertification Procedures~~
~~(1) The owner or operator of a Hg Budget unit shall be exempt from the initial certification requirements of this rule for a monitoring system under OAR 340-228-0658(1)(a) if the following conditions are met:~~
~~(a) The monitoring system has been previously certified in accordance with 40 CFR part 75; and~~
~~*(b) The applicable quality-assurance and quality-control requirements of 40 CFR 75.21 and appendix B* to 40 CFR part 75 are fully met for the certified monitoring system described in subsection (1)(a) of this rule.~~
~~(2) The recertification provisions of this rule shall apply to a monitoring system under OAR 340-228-0658(1)(a) exempt from initial certification requirements under section (1) of this rule.~~
~~(3) Except as provided in section (1) of this rule, the owner or operator of a Hg Budget unit must comply with the following initial certification and recertification procedures for a continuous monitoring system (e.g., a continuous emission monitoring system and an excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15) under OAR 340-228-0658(1)(a). The owner or operator of a unit that qualifies to use the Hg low mass emissions excepted monitoring methodology under 40 CFR 75.81(b) or that qualifies to use an alternative monitoring system under 40 CFR part 75 subpart E must comply with the procedures in section (4) or (5) of this rule respectively.~~
~~(a) Requirements for initial certification. The owner or operator must ensure that each monitoring system under OAR 340-228-0658(1)(a) (including the automated data acquisition and handling system) successfully completes all of the initial certification testing required under 40 CFR 75.20 by the applicable deadline in OAR 340-228-0658(2). In addition, whenever the owner or operator installs a monitoring system to meet the requirements of this rule in a location where no such monitoring system was previously installed, initial certification in accordance with 40 CFR 75.20 is required.~~
~~(b) Requirements for recertification. Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system, or an excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15, under OAR 340-228-0658(1)(a) that may significantly affect the ability of the system to accurately measure or record Hg mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of 40 CFR 75.21 or appendix B to 40 CFR part 75, the owner or operator must recertify the monitoring system in accordance with 40 CFR 75.20(b). Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator must recertify each continuous emission monitoring system, and each excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15, whose accuracy is potentially affected by the change, in accordance with 40 CFR 75.20(b). Examples of changes to a continuous emission monitoring system that require recertification include replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site.~~

~~(c) Approval process for initial certification and recertification. Paragraphs (3)(c)(A) through (D) of this rule apply to both initial certification and recertification of a continuous monitoring system under OAR 340-228-0658(1)(a). For recertifications, apply the word "recertification" instead of the words "certification" and "initial certification" and apply the word "recertified" instead of the word "certified," and follow the procedures in 40 CFR 75.20(b)(5) in lieu of the procedures in paragraph (3)(c)(E) of this rule.~~

~~(A) Notification of certification. The Hg designated representative must submit to the Department, the EPA Region 10 Office, and the Administrator written notice of the dates of certification testing, in accordance with OAR 340-228-0668.~~

~~(B) Certification application. The Hg designated representative must submit to the Department a certification application for each monitoring system. A complete certification application must include the information specified in 40 CFR 75.63.~~

~~(C) Provisional certification date. The provisional certification date for a monitoring system must be determined in accordance with 40 CFR 75.20(a)(3). A provisionally certified monitoring system may be used under the Hg Budget Trading Program for a period not to exceed 120 days after receipt by the Department of the complete certification application for the monitoring system under paragraph (3)(c)(B) of this rule. Data measured and recorded by the provisionally certified monitoring system, in accordance with the requirements of 40 CFR part 75, will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the Department does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of the date of receipt of the complete certification application by the Department.~~

~~(D) Certification application approval process. The Department will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application under paragraph (3)(c)(B) of this rule. In the event the Department does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR part 75 and is included in the certification application will be deemed certified for use under the Hg Budget Trading Program.~~

~~(i) Approval notice. If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR part 75, then the Department will issue a written notice of approval of the certification application within 120 days of receipt.~~

~~(ii) Incomplete application notice. If the certification application is not complete, then the Department will issue a written notice of incompleteness that sets a reasonable date by which the Hg designated representative must submit the additional information required to complete the certification application. If the Hg designated representative does not comply with the notice of incompleteness by the specified date, then the Department may issue a notice of disapproval under subparagraph (3)(c)(D)(iii) of this rule. The 120-day review period must not begin before receipt of a complete certification application.~~

~~(iii) Disapproval notice. If the certification application shows that any monitoring system does not meet the performance requirements of 40 CFR part 75 or if the certification application is incomplete and the requirement for disapproval under subparagraph (3)(c)(D)(ii) of this rule is met, then the Department will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the Department and the data measured and recorded by each uncertified monitoring system must not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under 40 CFR 75.20(a)(3)). The owner or operator must follow the procedures for loss of certification in paragraph (3)(c)(E) of this rule for each monitoring system that is disapproved for initial certification.~~

~~(iv) Audit decertification. The Department may issue a notice of disapproval of the certification status of a monitor in accordance with OAR 340-228-0662(2).~~

~~(E) Procedures for loss of certification. If the Department issues a notice of disapproval of a certification application under subparagraph (3)(c)(D)(iii) of this rule or a notice of disapproval of certification status under subparagraph (3)(c)(D)(iv) of this rule, then:~~

~~(i) The owner or operator must substitute the following values, for each disapproved monitoring system, for each hour of unit operation during the period of invalid data specified under 40 CFR 75.20(a)(4)(iii), 40 CFR 75.21(e) and continuing until the applicable date and hour specified under 40 CFR 75.20(a)(5)(i):~~

~~(I) For a disapproved Hg pollutant concentration monitors and disapproved flow monitor, respectively, the maximum potential concentration of Hg and the maximum potential flow rate, as defined in sections 2.1.7.1 and 2.1.4.1 of appendix A to 40 CFR part 75; and~~

~~(II) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO2 concentration or the minimum potential O2 concentration (as applicable), as defined in sections 2.1.5, 2.1.3.1, and 2.1.3.2 of appendix A to 40 CFR part 75.~~

~~(III) For a disapproved excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15 and disapproved flow monitor, respectively, the maximum potential concentration of Hg and maximum potential flow rate, as defined in sections 2.1.7.1 and 2.1.4.1 of appendix A to 40 CFR part 75.~~

~~(ii) The Hg designated representative must submit a notification of certification retest dates and a new certification application in accordance with paragraphs (3)(c)(A) and (B) of this rule.~~

~~(iii) The owner or operator must repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.~~

~~(4) Initial certification and recertification procedures for units using the Hg low mass emission excepted methodology under 40 CFR 75.81(b). The owner or operator of a unit qualified to use the Hg low mass emissions (HgLME) excepted methodology under 40 CFR 75.81(b) must meet the applicable certification and recertification requirements in 40 CFR 75.81(c) through (f).~~

~~(5) Certification/recertification procedures for alternative monitoring systems. The Hg designated representative of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Administrator and, if applicable, the Department under 40 CFR part 75 subpart E must comply with the applicable notification and application procedures of 40 CFR 75.20(f).~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0662~~
~~Out of Control Periods~~

~~(1) Whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of 40 CFR part 75, data must be substituted using the applicable missing data procedures in 40 CFR part 75 subpart D.~~

~~(2) Audit decertification. Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other~~

~~requirement under OAR 340-228-0660 or the applicable provisions of 40 CFR part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Department will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this paragraph, an audit must be either a field audit or an audit of any information submitted to the Department or the Administrator. By issuing the notice of disapproval, the Department revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system must not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator must follow the applicable initial certification or recertification procedures in OAR 340-228-0660 for each disapproved monitoring system.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0664~~
~~Notifications~~
~~The Hg designated representative for a Hg Budget unit must submit written notice to the Department and the Administrator in accordance with 40 CFR 75.61, except that if the unit is not subject to an Acid Rain emissions limitation, the notification is only required to be sent to the Department.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0666~~
~~Recordkeeping and Reporting~~
~~(1) General provisions.~~
~~(a) The Hg designated representative must comply with all recordkeeping and reporting requirements in this section and the requirements of OAR 340-228-0612(5)(a).~~
~~(b) If a Hg Budget unit is subject to an Acid Rain emission limitation and the Hg designated representative who signed and certified any submission made under 40 CFR part 75 subpart F or G and that includes data and information required under this section, OAR 340-228-0658 through 0664, 0668, 0670, or 40 CFR part 75 subpart I is not the same person as the designated representative or alternative designated representative, or for the unit under 40 CFR part 72, then the submission must also be signed by the designated representative or alternative designated representative, as applicable.~~
~~(2) Monitoring plans. The owner or operator of a Hg Budget unit must comply with the applicable requirements of 40 CFR 63.7521(b) and 40 CFR 75.84(e).~~
~~(3) Certification applications. The Hg designated representative must submit an application to the Department within 45 days after completing all initial certification or recertification tests required under OAR 340-228-0660, including the information required under 40 CFR 75.63.~~
~~(4) Quarterly reports. The Hg designated representative must submit quarterly reports, as follows:~~
~~(a) The Hg designated representative must report the Hg mass emissions data and heat input data for the Hg Budget unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with:~~

~~(A) For a unit that commences commercial operation before July 1, 2008, the calendar quarter covering January 1, 2009 through March 31, 2009; or~~
~~(B) For a unit that commences commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under OAR 340-228-0658(2), unless that quarter is the third or fourth quarter of 2008, in which case reporting must commence in the quarter covering January 1, 2009 through March 31, 2009.~~
~~(b) On and after January 1, 2019, the first quarterly report in a calendar year must include calendar year mercury emission totals.~~
~~(c) The Hg designated representative must submit each quarterly report to the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports must be submitted in the manner specified in 40 CFR 75.84(f).~~
~~(d) For Hg Budget units that are also subject to an Acid Rain emissions limitation, quarterly reports must include the applicable data and information required by 40 CFR part 75 subparts F through H as applicable, in addition to the Hg mass emission data, heat input data, and other information required by this section, OAR 340-228-0658 through 0664, 0668, and 0670.~~
~~(5) Compliance certification. The Hg designated representative must submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification must state that:~~
~~(a) The monitoring data submitted were recorded in accordance with the applicable requirements of this rule, OAR 340-228-0658 through 0664, 0668, 0670, and 40 CFR part 75, including the quality assurance procedures and specifications; and~~
~~(b) For a unit with add-on Hg emission controls, a flue gas desulfurization system, a selective catalytic reduction system, or a compact hybrid particulate collector system and for all hours where Hg data are substituted in accordance with 40 CFR 75.34(a)(1), the Hg add-on emission controls, flue gas desulfurization system, selective catalytic reduction system, or compact hybrid particulate collector system were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to 40 CFR part 75, or quality assured SO2 emission data recorded in accordance with 40 CFR part 75 document that the flue gas desulfurization system, or quality assured NOX emission data recorded in accordance with 40 CFR part 75 document that the selective catalytic reduction system, was operating properly, as applicable, and the substitute data values do not systematically underestimate Hg emissions.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0668~~
~~Petitions~~
~~The Hg designated representative of a Hg unit may submit a petition under 40 CFR 75.66 to the Administrator requesting approval to apply an alternative to any requirement of OAR 340-228-0658 through 0666 and 0670. Application of an alternative is in accordance with this section and OAR 340-228-0658 through 0666 and 0670 only to the extent that the petition is approved in writing by the Administrator, in consultation with the Department.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0670~~
~~Additional Requirements to Provide Heat Input Data~~
~~The owner or operator of a Hg Budget unit that monitors and reports Hg mass emissions using a Hg concentration monitoring system and a flow monitoring system must also monitor and report heat input rate at the unit level using the procedures set forth in 40 CFR part 75.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Hg Emission Standards and Emission Caps~~

~~340-228-0671~~
~~Emission Standards~~
~~(1) Mercury reduction plan. By July 1, 2009 or 1-year prior to commencement of commercial operation, whichever is later, the owner or operator of each Hg Budget unit must develop and submit for Department approval a mercury reduction plan for each Hg Budget unit. The plan must propose a control strategy for mercury that is most likely to result in the capture of at least 90 percent of the mercury emitted from the unit or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input. The owner or operator must demonstrate that the plan reflects technology that could reasonably be expected to meet the limits in this section if the technology operates as anticipated by the manufacturer. The plan must provide a timeframe for implementation of the selected control strategy including major milestones, installation and operation requirements, and work practice standards for the selected technology. The owner and operator of the Hg Budget unit may proceed with the plan within 60 days of submittal unless, within the 60 day period, the Department notifies the owner or operator of the Hg Budget unit that the plan must be revised.~~
~~(2) Mercury emission standards. On and after July 1, 2012 or at commencement of commercial startup, whichever is later, except as allowed under section (3) of this rule, each Hg Budget unit must have implemented the approved control strategy projected to achieve at least 90 percent mercury capture or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input.~~
~~(3) Compliance extension. Up to a 1-year extension of the requirement to implement the approved control strategy may be granted by the Department if the owner or operator of a Hg Budget unit demonstrates that it is not practical to install mercury control equipment by July 1, 2012 due to supply limitations or other extenuating circumstances that are beyond the control of the owner or operator.~~
~~(4) Compliance demonstration. Commencing in July 2013 or 12 months after commercial startup or 12 months after expiration of the extension granted under section (3) of this rule, whichever is later, each Hg Budget unit must thereafter demonstrate compliance with one of the standards in subsections (4)(a) or (4)(b) of this rule for each compliance period, except as allowed under sections (5) and (6) of this rule. A compliance period consists of twelve months. Each month commencing with June 2013 or the twelfth month after commencement of commercial operation or twelfth month after expiration of the extension granted under section (3) of this rule, whichever is later, is the end of a compliance period consisting of that month and the previous 11 months.~~

~~(a) A mercury emission standard of 0.60 pounds per trillion BTU of heat input calculated by dividing the Hg emissions determined using a mercury CEMS or sorbent trap monitoring system by heat input as determined according to OAR 340-228-0674; or~~

~~(b) A minimum 90-percent capture of inlet mercury determined as follows:~~

~~(A) Inlet mercury must be determined as follows:~~

~~(i) The owner or operator must test coal for mercury consistent with a coal sampling and analysis plan prepared according to OAR 340-228-0676; or~~

~~(ii) The owner or operator must measure mercury emissions prior to any control device(s) according to OAR 340-228-0678.~~

~~(B) The mercury capture efficiency must be calculated using the Hg emissions determined using a mercury CEMS or sorbent trap monitoring system and the inlet mercury determined using the coal mercury content data obtained in accordance with subparagraph (1)(b)(A)(i) of this rule or the measured inlet mercury data obtained in accordance with subparagraph (1)(b)(A)(ii) of this rule and a calculation methodology approved by the Department.~~

~~(5) Temporary compliance alternative. If the owner or operator of a Hg Budget unit properly implements the approved control strategy and the strategy fails to achieve at least 90 percent mercury capture or limit mercury emissions to 0.60 pounds per trillion BTU of heat input:~~

~~(a) The owner or operator must notify the Department of the failure within 30 days of the end of the initial compliance period; and~~

~~(b) The owner or operator must file an application with the Department for a permit or permit modification in accordance with OAR 340 division 216 to establish a temporary alternative mercury emission limit. The application must be filed within 60 days of the end of the initial compliance period, and must include a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input and all monitoring and operating data for the Hg Budget unit.~~

~~(c) The Department may establish a temporary alternative mercury emission limit only if the owner or operator applies for a permit or permit modification, that includes a control strategy that the Department determines constitutes a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input.~~

~~(d) Establishment of a temporary alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category III permit actions~~

~~(e) If the owner or operator files an application under subsection (5)(b) of this rule, the Hg Budget unit must operate according to the temporary alternative mercury emission limit proposed in the permit or permit modification application until the Department either denies the application or issues the permit or permit modification. Compliance with the proposed temporary alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (4) of this rule.~~

~~(f) A temporary alternative mercury emission limit established in a permit expires July 1, 2015 or within 2 years of commencement of commercial operation, whichever is later.~~

~~(6) Permanent compliance alternative. If the owner or operator of a Hg Budget unit is unable to achieve at least 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input by July 1, 2015 or within 2 years of commencement of commercial operation, whichever is later, despite properly implementing the continual program of mercury progression required in section (5) of this rule:~~

~~(a) The owner or operator of the Hg Budget unit may file an application with the Department for a permit modification in accordance with OAR 340 division 216 to establish a permanent alternative~~

~~mercury emission limit that comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.~~

~~(b) The Department may establish a permanent alternative mercury emission limit only if the owner or operator applies for a permit modification, that proposes an alternative mercury emission limit that the Department determines comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.~~

~~(c) Establishment of a permanent alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category IV permit actions.~~

~~(d) If the owner or operator files an application under subsection (6)(a) of this rule, the Hg Budget unit must operate according to the permanent alternative mercury emission limit proposed in the permit modification application until the Department either denies the application or modifies the permit. Compliance with the proposed permanent alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (4) of this rule.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~

~~Stats. Implemented: ORS 468A.025~~

~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0672~~

~~Emission Caps~~

~~Beginning in calendar year 2018, the state's annual allowable mercury emissions from electric generating units shall apply as the following Hg Budget unit specific emission caps.~~

~~(1) Existing Boardman Hg Budget unit cap. The existing Hg Budget unit in Boardman shall emit no more than:~~

~~(a) 60 pounds of mercury in any calendar year in which there are no new Hg Budget units operated in Oregon.~~

~~(b) 35 pounds of mercury in any calendar year in which there are new Hg Budget units operated in Oregon.~~

~~(2) New Hg Budget unit cap:~~

~~(a) New Hg Budget units, in aggregate, shall emit no more than:~~

~~(A) 25 pounds of mercury in any calendar year in which the existing Hg Budget unit in Boardman is operated.~~

~~(B) 60 pounds of mercury in any calendar year in which the existing Hg Budget unit in Boardman is not operated.~~

~~(b) The Hg designated representative of each new Hg Budget unit shall submit to the Department a request, in a format specified by the Department, to receive a portion of the new Hg Budget unit cap. The request may not be submitted until the new Hg Budget unit has received its Site Certification from the Facility Siting Council, or if the new Hg Budget unit is not required to obtain a Site Certificate, all governmental approvals necessary to commence construction.~~

~~(c) The Department will allocate the new Hg Budget unit cap in order of receipt of requests and, once allocated, the new Hg Budget unit shall be entitled to receive and equal allocation in future years unless the new Hg Budget unit permanently ceases operations.~~

~~(d) Each individual new Hg Budget unit shall emit no more than the lesser of:~~

~~(A) An amount of mercury determined by multiplying the design heat input in TBtu of such Hg Budget unit by 0.60 pounds per TBtu rounded to the nearest pound as appropriate, or~~

~~(B) The amount of the emission cap under (2)(a) or (b) less the amount of the emission cap under(2)(a) or (b) that has been allocated to other new Hg Budget units.~~
~~(3) Compliance demonstration. Each Hg Budget unit must demonstrate compliance with the applicable calendar year emission cap in sections(1) or (2) of this rule using a mercury CEMS or sorbent trap monitoring system.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

~~340-228-0673~~
~~Monitoring Requirements for the Hg Emission Standards~~
~~(1) Requirements for installation, certification, and data accounting. The owners and operators of a Hg Budget unit must:~~
~~(a) Install all applicable monitoring systems required under OAR 340-228-0674 through 0678 for monitoring individual unit heat input and inlet Hg.~~
~~(b) Successfully complete certification tests under OAR 340-228-0660 and meet all other requirements of this rule, OAR 340-228-0660 through 0670, and 40 CFR part 75 subpart I for the monitoring systems under subsection (1)(a) of this rule.~~
~~(c) Record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule.~~
~~(d) Reports and petitions required in subsections (1)(b) and (1)(c) of this rule must be submitted to the Department, not to the Administrator.~~
~~(2) Compliance deadlines. The owner or operator must meet the monitoring system certification and other requirements of subsections (1)(a) and(b) of this rule on or before the following dates. The owner or operator must record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule on and after the following dates.~~
~~(a) Heat input. For monitoring systems used to monitor heat input in accordance with OAR 340-228-0671(4)(a), if applicable, by the later of the following dates:~~
~~(A) July 1, 2012 or the date established under OAR 340-228-0671(3); or~~
~~(B) The date on which the unit commences commercial operation.~~
~~(b) Inlet Hg. If required to perform coal sampling and analysis in accordance with OAR 340-228-0671(4)(b)(A)(i) and 340-228-0676 or measure Hg emission prior to any control device(s) in accordance with OAR 340-228-0671(4)(b)(A)(ii) and 340-228-0678, if applicable, by the later of the following dates:~~
~~(A) July 1, 2012 or the date established under OAR 340-228-0671(3); or~~
~~(B) The date on which the unit commences commercial operation.~~
~~(3) Reporting data.~~
~~(a) The owner or operator of a Hg Budget unit that does not meet the applicable compliance date set forth in section(2) of this rule for any monitoring system under subsection(1)(a) of this rule must, for each monitoring system, determine, record, and report maximum potential(or, as appropriate, minimum potential) values for heat input, inlet Hg, and any other parameters required to determine heat input and Hg inlet in accordance with OAR 340-228-0674 through 0678.~~
~~(b) On and after January 1, 2018, the owner or operator of a Hg Budget unit must submit to the Department quarterly reports of monthly and 12-month rolling average mercury emissions per trillion Btu of energy input and/or mercury capture efficiency, for each month in the calendar quarter.~~

~~(4) Prohibitions. No owner or operator of a Hg Budget unit shall disrupt any emission monitoring method, and thereby avoid monitoring and recording heat input, and/or inlet Hg, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this rule, OAR 340-228-0660 through 0670, and 40 CFR part 75 subpart I.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

~~340-228-0674~~
~~Heat Input Determination~~
~~To demonstrate compliance with OAR 340-228-0671(2) for each Hg Budget unit, the owner or operator of such Hg Budget unit must determine the heat input according to 40 CFR part 75, appendix F (procedures 5 and 9).~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

~~340-228-0676~~
~~Coal Sampling and Analysis~~
~~To demonstrate compliance with OAR 340-228-0671(2) with coal sampling and analysis for each Hg Budget unit, the owner or operator of such Hg Budget unit must test its coal for mercury consistent with a coal sampling and analysis plan. The coal sampling and analysis plan must be consistent with the requirements of 40 CFR 63.7521.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

~~340-228-0678~~
~~Hg Mass Emissions Measurement Prior to Any Control Device(s)~~
~~To demonstrate compliance with OAR 340-228-0671(2) by measuring Hg mass emissions for each Hg Budget unit, the owner or operator of such Hg Budget unit must measure mercury emissions prior to any control device(s) according to 40 CFR part 75 subpart I or 40 CFR 75.15.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

Agenda Item L, Rule Adoption: Adoption of Federal Air Quality Regulations
December 11-12, 2008 EQC Meeting
Attachment A5a

Table 1 (OAR 340-228-0631(1))
Missing Data Procedures for Hg CEMS

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours)[1]	Method	Look back period
90 or more	N < 24	Average	hour before/hour after
	N > 24	Greater of average; or	hour before/hour after
		90th percentile	720 hours*
≥ 80 but < 90	N < 8	Average	hour before/hour after
	N > 8	Greater of average; or	hour before/hour after
		90th percentile	720 hours*
≥ 70 but < 80	N > 0	Maximum value**	720 hours*
Below 70	N > 0	Maximum potential concentration*** or %	None

1 During unit operating hours.
*Quality-assured, monitor operating hours, during unit operation. Use data from no earlier than 3 years prior to the missing data period.
**Where a unit with add-on Hg emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in 40 CFR 75.34, the unit may use the maximum controlled concentration from the previous 720 quality-assured monitor operating hours.
*** Alternatively, where a unit with add-on Hg emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in 40 CFR 75.34, the unit may report the greater of: (a) the maximum expected Hg concentration or (b) 1.25 times the maximum controlled value from the previous 720 quality-assured monitor operating hours.

Table 2 (OAR 340-228-0627(8))
Quality Assurance/Quality Control Criteria for Sorbent Trap Monitoring Systems

QA/QC test or specification	Acceptance criteria	Frequency	Consequences if not met
Pre-test leak check……..	<4% of target sampling rate..	Prior to sampling…	Sampling shall not commence until the leak check is passed.
Post-test leak check……..	<4% of average sampling rate..	After sampling……..	*
Ratio of stack gas flow rate to sample flow rate……..	No more than 5% of the hourly ratios (which-ever is less restrictive) may deviate from the reference ratio by more than + 25%.	Every hour throughout data collection period.	*
Sorbent trap section 2 breakthrough.	< 5% of Section 1 Hg mass……..	Every sample……..	*
Paired sorbent trap agreement……..	<10% Relative Deviation (RD) if the average concentration is > 1.0 µg/m^3. Results are also acceptable if absolute difference between concentrations from paired traps is < 0.03 µg/m^3.	Every sample……..	Either invalidate the data from the paired traps or report the results from the trap with the higher Hg concentration.
Spike recovery study……..	Average recovery between 85% and 115% for each of the 3 spike concentration levels.	Prior to analyzing field samples and prior to use of new sorbent media.	Field samples shall not be analyzed until the percent recovery criteria has been met.
Multipoint analyzer calibration……..	Each analyzer reading within + 10% of true value and $r^2 \geq 0.99$.	On the day of analysis, before analyzing any samples.	Recalibrate until successful.
Analysis of independent calibration standard……..	Within + 10% of true value……..	Following daily calibration, prior to analyzing field samples.	Recalibrate and repeat independent standard analysis until successful.
Spike recovery from section 3 of sorbent trap……..	75–125% of spike amount……..	Every sample……..	*
RATA……..	RA < 20.0% or mean difference < 1.0 µg/dscm for low emitters.	For initial certification and annually thereafter.	Data from the system are invalidated until a RATA is

			passed.
Gas flow meter calibration.....	Calibration factor (Y) within + 5% of average value from the initial 3-point calibration.	At three settings prior to initial use and at least quarterly at one setting thereafter. For mass flow meters, initial calibration with stack gas is required.	Recalibrate the meter at three orifice settings to determine a new value of Y.
Temperature sensor calibration.....	Absolute temperature measured by sensor within + 1.5% of a reference sensor.	Prior to initial use and at least quarterly thereafter.	Recalibrate. Sensor may not be used until specification is met.
Barometer calibration.....	Absolute pressure measured by instrument within + 10 mm Hg of reading with a mercury barometer.	Prior to initial use and at least quarterly thereafter.	Recalibrate. Instrument may not be used until specification is met.

* Note: If both traps fail to meet the acceptance criteria, the data from the pair of traps are invalidated. However, if only one of the paired traps fails to meet this particular acceptance criterion and the other sample meets all of the applicable QA criteria, the results of the valid trap may be used for reporting under this part, provided that the measured Hg concentration is multiplied by a factor of 1.111. When the data from both traps are invalidated and quality-assured data from a certified backup monitoring system, reference method, or approved alternative monitoring system are unavailable, missing data substitution must be used.

Table 3 (OAR 340-228-0639)
Coal Analysis Requirements. The owner or operator must comply with the following requirements for coal analysis testing for existing, new or reconstructed affected sources. However, equivalent methods may be used in lieu of the prescribed methods at the discretion of the source owner or operator:

The owner or operator must	**Using**
a. Collect coal samples	Procedure in OAR 340-228-0639(3), ASTM D2234–D2234M–03 or equivalent.
b. Composite coal samples	Procedure in OAR 340-228-0639(4) or equivalent.
c. Prepare composited coal samples	ASTM D2013–04 or equivalent.
d. Determine heat content of the coal type	ASTM D5865–04 or equivalent.
e. Determine moisture content of the coal type	ASTM D3173–03 or equivalent.
f. Measure mercury concentration in coal sample	ASTM D6722–01 or equivalent.
g. Convert concentration into units of pounds of pollutant per MMBtu of heat content.	

Table 4 (OAR 340-228-0635)
Codes for Method of Emissions and Flow Determination

Code	**Hourly emissions/flow measurement or estimation method**
1	Certified primary emission/flow monitoring system.
2	Certified backup emission/flow monitoring system.

3	Approved alternative monitoring system.
4	Reference method:
	SO_2: Method 6C.
	Flow: Method 2 or its allowable alternatives under appendix A to 40 CFR part 75.
	NOX: Method 7E.
	CO_2 or O_2: Method 3A.
5	For units with add-on SO_2 and/or NOX emission controls: SO_2 concentration or NOX emission rate estimate from preapproved parametric monitoring method.
6	Average of the hourly SO_2 concentrations, CO_2 concentrations, O_2 concentrations, NOX concentrations, flow rates, moisture percentages or NOX emission rates for the hour before and the hour following a missing data period.
7	Initial missing data procedures used. Either: (a) the average of the hourly SO_2 concentration, CO_2 concentration, O_2 concentration, or moisture percentage for the hour before and the hour following a missing data period; or (b) the arithmetic average of all NOX concentration, NOX emission rate, or flow rate values at the corresponding load range (or a higher load range), or at the corresponding operational bin (non-load-based units, only); or (c) the arithmetic average of all previous NOX concentration, NOX emission rate, or flow rate values (non-load-based units, only).
8	90th percentile hourly SO_2 concentration, CO_2 concentration, NOX concentration, flow rate, moisture percentage, or NOX emission rate or 10th percentile hourly O_2 concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
9	95th percentile hourly SO_2 concentration, CO_2 concentration, NOX concentration, flow rate, moisture percentage, or NOX emission rate or 5th percentile hourly O_2 concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
10	Maximum hourly SO_2concentration, CO_2 concentration, NOX concentration, flow rate, moisture percentage, or NOX emission rate or minimum hourly O_2 concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
11	Average of hourly flow rates, NOX concentrations or NOX emission rates in corresponding load range, for the applicable lookback period. For non-load-based units, report either the average flow rate, NOX concentration or NOX emission rate in the applicable lookback period, or the average flow rate or NOX value at the corresponding operational bin (if operational bins are used).
12	Maximum potential concentration of SO_2, maximum potential concentration of CO_2, maximum potential concentration of NOX maximum potential flow rate, maximum potential NOX emission rate, maximum potential moisture percentage, minimum potential O_2 concentration or minimum potential moisture percentage, as determined using 40 CFR 72.2 and section 2.1 of appendix A to 40 CFR part 75 (moisture missing data algorithm depends on which equations are used for emissions and heat input).
13	Maximum expected concentration of SO2, maximum expected concentration of NOX, maximum expected Hg concentration, or maximum controlled NOX emission rate. (*See* 40 CFR 75.34(a)(5)).
14	Diluent cap value (if the cap is replacing a CO_2 measurement, use 5.0 percent for boilers and 1.0 percent for turbines; if it is replacing an O_2 measurement, use 14.0 percent for boilers and 19.0 percent for turbines).
15	1.25 times the maximum hourly controlled SO_2 concentration, Hg concentration, NOX concentration at the corresponding load or operational bin, or NOX emission rate at the corresponding load or operational bin,

	in the applicable lookback period (*See* 40 CFR 75.34(a)(5)).
16	SO_2 concentration value of 2.0 ppm during hours when only "very low sulfur fuel", as defined in 40 CFR 72.2, is combusted.
17	Like-kind replacement non-redundant backup analyzer.
19	200 percent of the MPC; default high range value.
20	200 percent of the full-scale range setting (full-scale exceedance of high range).
21	Negative hourly CO_2 concentration, SO_2 concentration, NOX concentration, percent moisture, or NOX emission rate replaced with zero.
22	Hourly average SO_2 or NOX concentration, measured by a certified monitor at the control device inlet (units with add-on emission controls only).
23	Maximum potential SO_2 concentration, NOX concentration, CO_2 concentration, NOX emission rate or flow rate, or minimum potential O_2 concentration or moisture percentage, for an hour in which flue gases are discharged through an unmonitored bypass stack.
24	Maximum expected NOX concentration, or maximum controlled NOX emission rate for an hour in which flue gases are discharged downstream of the NOX emission controls through an unmonitored bypass stack, and the add-on NOX emission controls are confirmed to be operating properly.
25	Maximum potential NOX emission rate (MER). (Use only when a NOX concentration full-scale exceedance occurs and the diluent monitor is unavailable.)
26	1.0 mmBtu/hr substituted for Heat Input Rate for an operating hour in which the calculated Heat Input Rate is zero or negative.
32	Hourly Hg concentration determined from analysis of a single trap multiplied by a factor of 1.111 when one of the paired traps is invalidated or damaged (*See* OAR 340-228-0627(8))).
33	Hourly Hg concentration determined from the trap resulting in the higher Hg concentration when the relative deviation criterion for the paired traps is not met (*See* OAR 340-228-0627(8)).
40	Fuel specific default value (or prorated default value) used for the hour.
54	Other quality assured methodologies approved through petition. These hours are included in missing data lookback and are treated as unavailable hours for percent monitor availability calculations.
55	Other substitute data approved through petition. These hours are not included in missing data lookback and are treated as unavailable hours for percent monitor availability calculations.

340-228-0619
Procedures for Hg Mass Emissions

$$M_{\text{time period}} = \sum_{h=1}^{n} M_h$$

Equation 1

Where:
$M_{\text{time period}}$ = Hg mass emissions for the given time period *i.e.*, quarter or year-to-date, rounded to the nearest thousandth, (ounces)
M_h = Hg mass emissions for the hour, rounded to three decimal places, (ounces)
n = the number of hours in the given time period (quarter or year-to-date)

340-228-0625
Specifications and Test Procedures for Total Vapor Phase Mercury CEMS

$$d = \frac{1}{n}\sum_{i=1}^{n} d_i$$

Equation 2

$$\sum_{i=1}^{n} d_i = \text{Algebraic summation of the individual differences } d_i.$$

Where:
n = number of data points

$$S_d = \left[\frac{\sum_{i=1}^{n} d_i^2 - \frac{\left[\sum_{i=1}^{n} d_i\right]^2}{n}}{n-1}\right]^{\frac{1}{2}}$$

Equation 3

$$CC = t_{0.975}\frac{S_d}{\sqrt{n}}$$

Equation 4

$$RA = \frac{\left[\left|\bar{d}\right| + \left|CC\right|\right]}{\overline{RM}} \times 100$$

Equation 5

Where:

$\left|\bar{d}\right|$ = Absolute value of the mean differences

$\left|CC\right|$ = Absolute value of the confidence coefficient

$\overline{RM}$ = Average RM value

State of Oregon

Department of Environmental Quality Memorandum

Date: November 24, 2008

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item M, Informational Item: Statewide Water Roundtables
December 11-12, 2008 EQC Meeting

Purpose of Item To inform the Environmental Quality Commission about the Statewide Water Roundtable meetings that were held during Fall 2008.

Background A series of five Water Roundable meetings were held throughout the state in September and October 2008. Representative Jackie Dingfelder worked with the OSU Institute for Water and Watersheds, Oregon Sea Grant Extension, OUS Institute for Natural Resources and contributing partners to organize and implement these roundtable forums.

The mission of the Water Roundtables was to receive input and advice from Oregonians and develop information that will inform efforts to identify and communicate a vision describing where Oregon is, where Oregon is going, and where Oregonians want to be with respect to adaptive, integrated, equitable and sustainable water management. Participants were provided with an opportunity to communicate about what water issues they view as most important, and to suggest solutions to problems.

A report summarizing the findings of the Water Roundtable should be completed by December 2008. Dr. Michael Campana, Director of the OSU Institute for Water and Watersheds, will brief the EQC on the process and outcomes of these forums. Additional information can be found at: http://water.oregonstate.edu/roundtables

Key Issues The findings of the Statewide Water Roundtables could be used to support the water related work of state agencies and the direction of the Governor's Headwaters to Ocean (H2O) initiative.

Next Steps None at this time.

EQC Involvement This is an informational agenda item; no action required.

Approved:

Division: 

Report Prepared By: Jane Bacchieri

Oregon Water Roundtables

Michael E. Campana
Institute for Water and Watersheds, OSU
http://water.oregonstate.edu

Oregon Environmental Quality Commission

12 December 2008

Hillsboro, OR

A Flow Path for the Future of Oregon's Water Resources
Statewide Water Roundtables

http://water.oregonstate.edu/roundtables/docs.htm

Locations, Dates, and Number of Participants

- Central Oregon (Bend; 9/25/08) - 65
- Coastal Oregon (Newport; 9/30/08) - 55
- Eastern Oregon (Ontario; 10/7/08) - 50
- Southern Oregon (Medford; 10/14/08) - 56
- Willamette Valley (Salem; 10/21/08) - 75

Total Participants - 301

Roundtable Background

- Concept: Rep. Jackie Dingfelder (D-Portland)
- Listen to Oregonians' water concerns
- Implemented by IWW, Institute for Natural Resources, Oregon Sea Grant Extension
- Raised money to fund RTs
- Selected five locations, identified experts to speak on local water issues
- Participants generally self-selected
- Report what we heard in time for 2009 Legislature, Governor's Office, OWRC, agencies, citizens

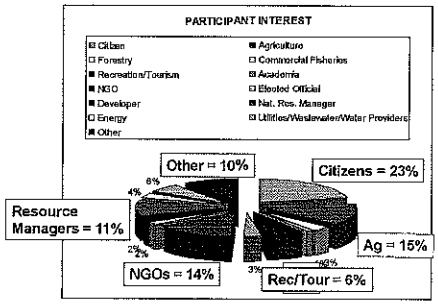
Roundtable Format

- Six hours: noon – 6 PM
- Lunch provided
- Introductory comments
- Large group facilitation: issue identification
- Expert presentations – provided background on local water issues
- Second facilitation: break-out groups identified more issues, prioritized them, listed desired outcomes, proposed solutions, players, provided examples, etc.
- Break-out groups reported to entire group
- Concluding remarks

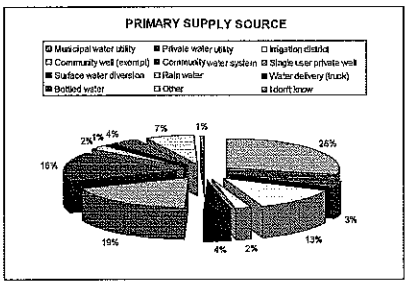
Participant Profile

- Broad range of water users
- Knowledgeable
- Broad range of concerns about water
- Not optimistic about current or future water supplies

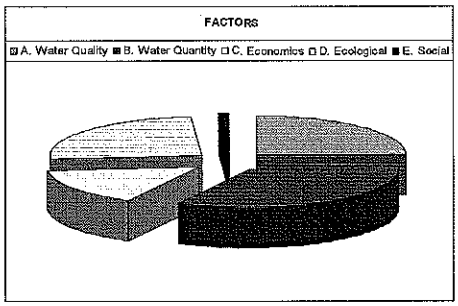
Participants' Interests



Participants' Primary Supply Sources



Participants Cared Most About...



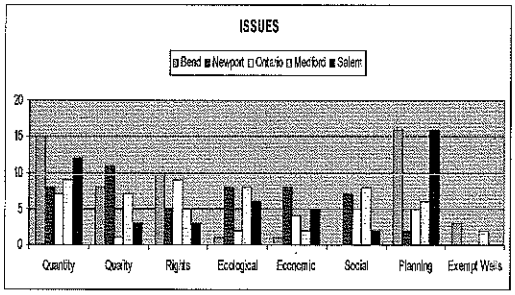
Expert Presentations

- Water Resources Department
- Department of Fish and Wildlife
- Department of Environmental Quality
- U.S. Army Corps of Engineers
- Irrigation District Managers
- City Water/Wastewater Managers
- Tribal Representatives
- NGOs
- Academics

Representative Issues

- Funding for water and wastewater infrastructure and management
- Regional integrated water planning with state framework
- Protection of existing water rights and uses
- Water quality, especially non-point, micro-contaminants and impacts of urbanization
- Water-land use planning integration
- Climate change impacts
- Wetland, floodplain, and instream flow restoration
- Interstate water allocation/management

Issues of Interest by Location



Key Messages

- Need for integrated water management planning and implementation
- One size does not fit all—regional solutions are needed to meet regional needs
- Protection of existing water rights, uses
- Public information and education about water and water management are needed
- More support for State agencies involved with water

Potential Solutions

- Maximize available funds through agency coordination and streamlining of funding sources
- Water conservation tax credits, like energy tax credits
- Water reuse and recycling
- Water markets, pricing, and incentives
- Water storage and conservation
- Measuring water flows and uses systematically
- Local integrated water planning
- Interstate compact(s)

A Flow Path for the Future of Oregon's Water Resources
Statewide Water Roundtables
http://water.oregonstate.edu/roundtables/docs.htm

My Perspective

- Locals: "ahead" of state government and want more community-based or regionally-based solutions, with support, not interference, from government
- Water rights, exempt wells concerns
- Despite disagreements, stakeholders with disparate views generally got along well
- Reason for optimism on my part

Comments, Questions?

- All documents – agendas, presentations, Power Points, synthesis report - are available at:

water.oregonstate.edu/roundtables/docs.html

- Synthesis report should be posted within a few days
- Contact me at aquadoc@oregonstate.edu, 541-737-2413

State of Oregon
Department of Environmental Quality Memorandum

Date: November 24, 2008

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item N, Informational Item: 2009 Budget and Legislative Agenda Update
December 11-12, 2008 EQC Meeting

Purpose of Item The purpose of this agenda item is to provide an update to the Environmental Quality Commission on the status of the Department of Environmental Quality's 2009-11 Agency Request Budget. This presentation includes updates on draft legislative concepts, budget policy packages, ten percent reduction option packages and key issues for the base budget (non-policy package components) for 2009-11.

Background DEQ staff presented the draft DEQ budget policy packages and legislative concepts for the 2009 legislative agenda at the August EQC meeting. At that meeting, the EQC authorized the chair to certify DEQ's 2009-11 Agency Request Budget for submittal to the Department of Administrative Services (DAS) by September 1. The information presented included a listing of legislative concepts and budget policy packages, a priority ranking of all budget policy packages and an overview of key issues for the base budget. Information was also provided on the ten percent reduction options for the General Fund and Lottery Fund monies. These reductions, if taken, represent positions and work that will no longer be at DEQ. A brief update on the status of the budget submittal was also included as part of the Director's Dialogue at the October meeting.

Governor's Recommended Budget

By September 1, state agencies were required to submit their agency request budgets (ARB) to DAS. During the fall, DAS and the Governor's Office are reviewing the various ARBs, the agency legislative concepts, and state fiscal information to develop the Governor's Recommended Budget (GRB). The GRB is a balanced budget request which reflects the Governor's budgetary priorities for the 2009 Legislative Session. It includes all state agencies' budgets and state funding commitments. The GRB is released around December 1. One major consideration that will be evident in the GRB is the affect of the recent and dramatic downturn of the economy on the state's General Fund. This means that many of the

budget policy packages that once looked affordable will no longer be affordable.

As was reported at the October EQC meeting, DEQ had its formal budget appeals meeting on October 22. This meeting included key representatives from DAS and the Governor's Office. In this budget development cycle, all General Fund and Lottery Fund packages were denied, all fee requests were denied and the full ten percent of the General Fund and Lottery Fund reduction options were taken. At the appeals meeting, DEQ presented its case as to why the ten percent General Fund and Lottery Fund reduction options should not be taken. Also, we made a case for funding many of the General Fund and Lottery Fund packages as well as for the budget policy packages that include fee requests. We are now awaiting the results of the appeals process.

At the time this report was drafted, DEQ had not learned what will and will not be in the GRB. We will present this information to you at the December meeting.

EQC Involvement

At each of the 2008 EQC meetings and throughout the 2009 Legislative Session, DEQ plans to bring updates on the development of the 2009 legislative concepts and budget request.

Approved:

Section: Management Services Division

Report Prepared By: Gregory K. Aldrich
Phone: (503) 229-6345

Figure 1
2007-2009 Legislative Approved Budget, By Program
$297,999,944

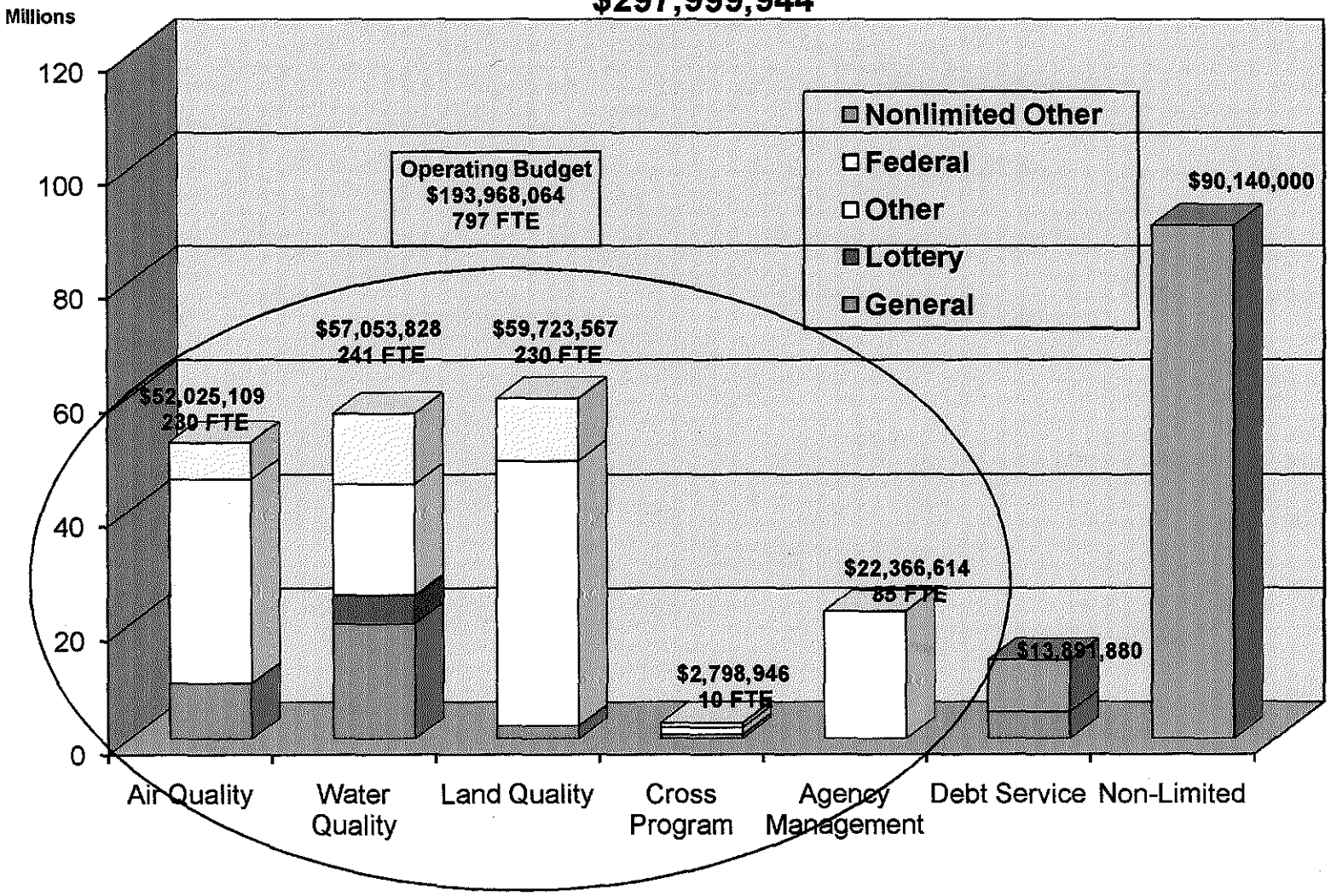


Figure 2
2009-2011 Governor's Rec Budget, By Program
$345,762,629

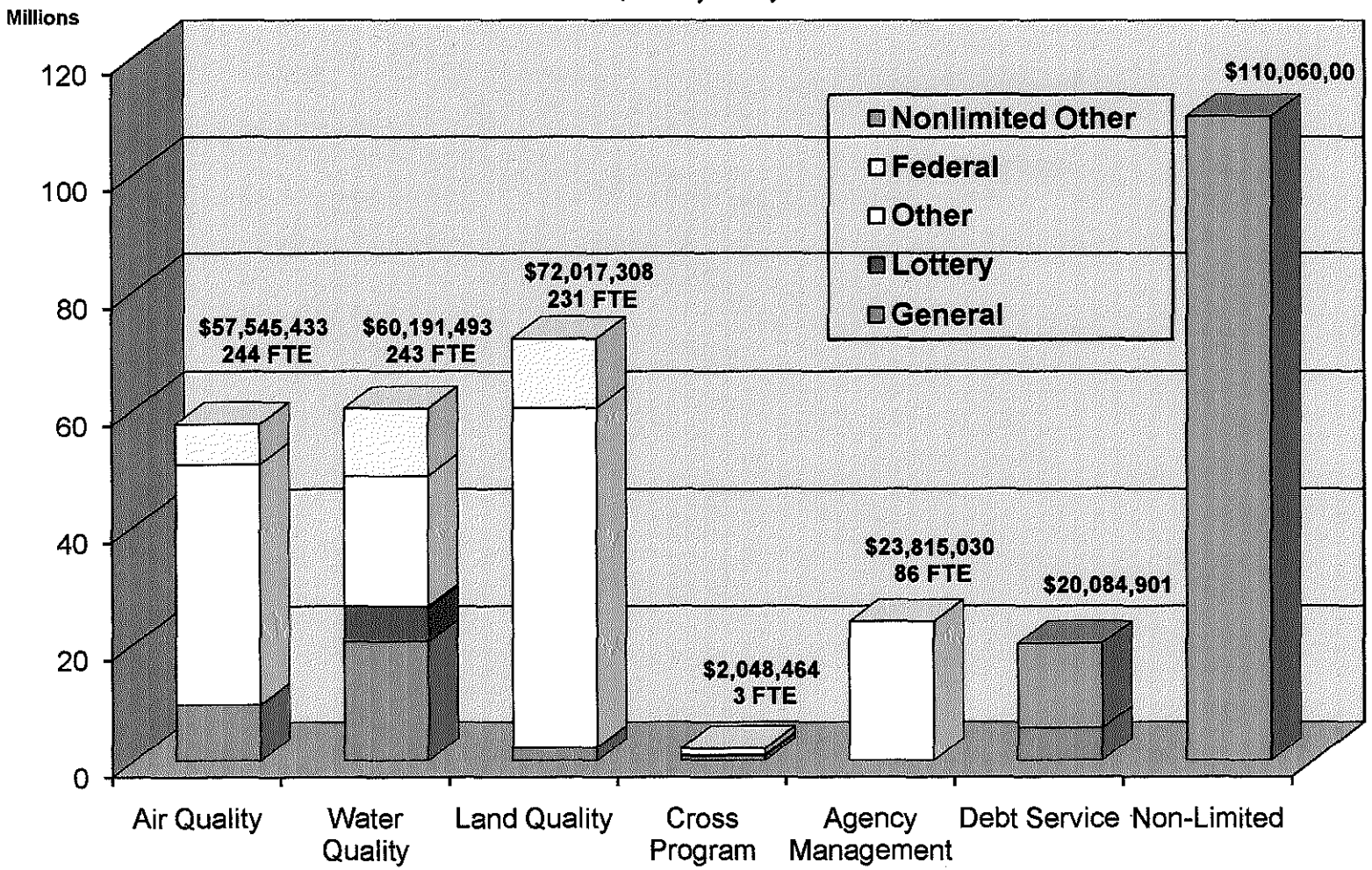


Figure 3
2009-2011 Governor's Rec Budget
Department of Environmental Quality
FTE By Program

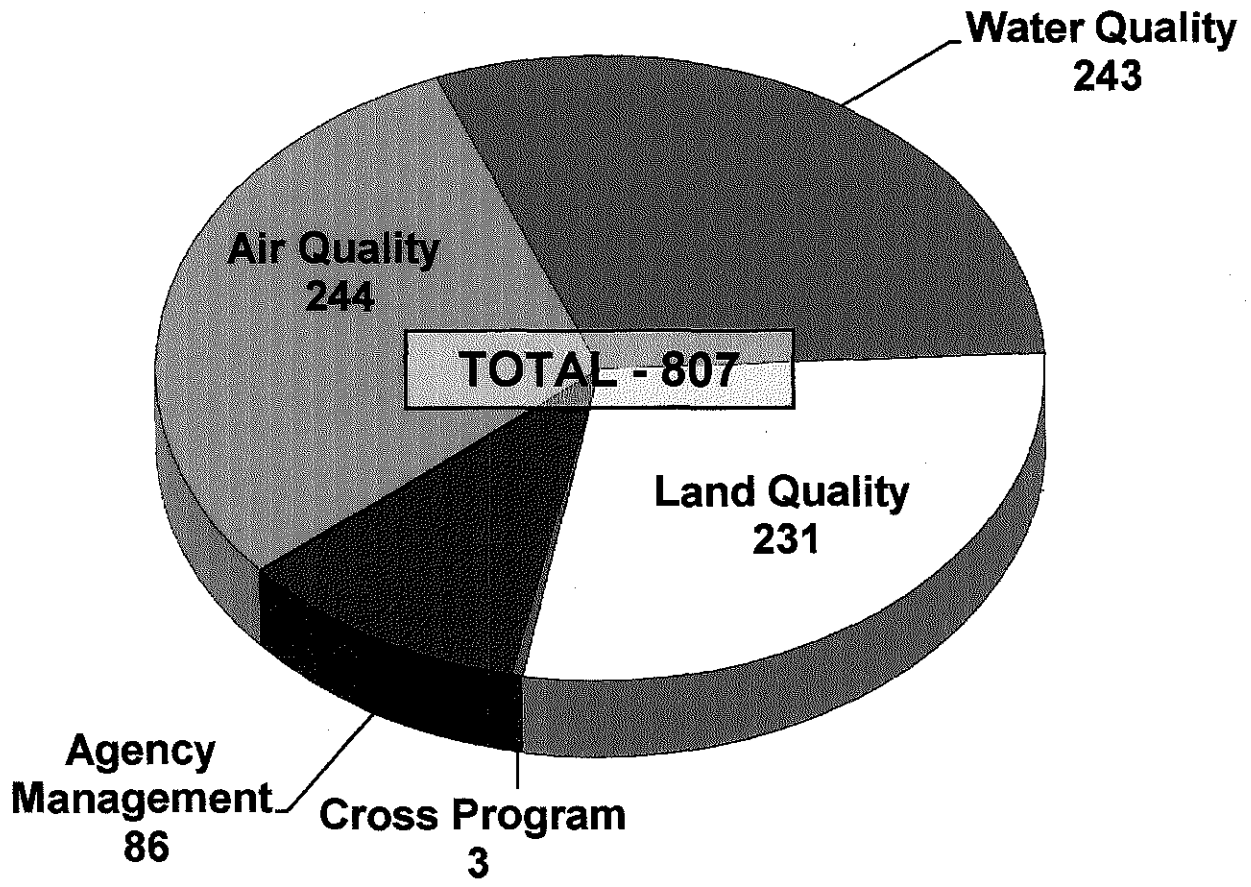
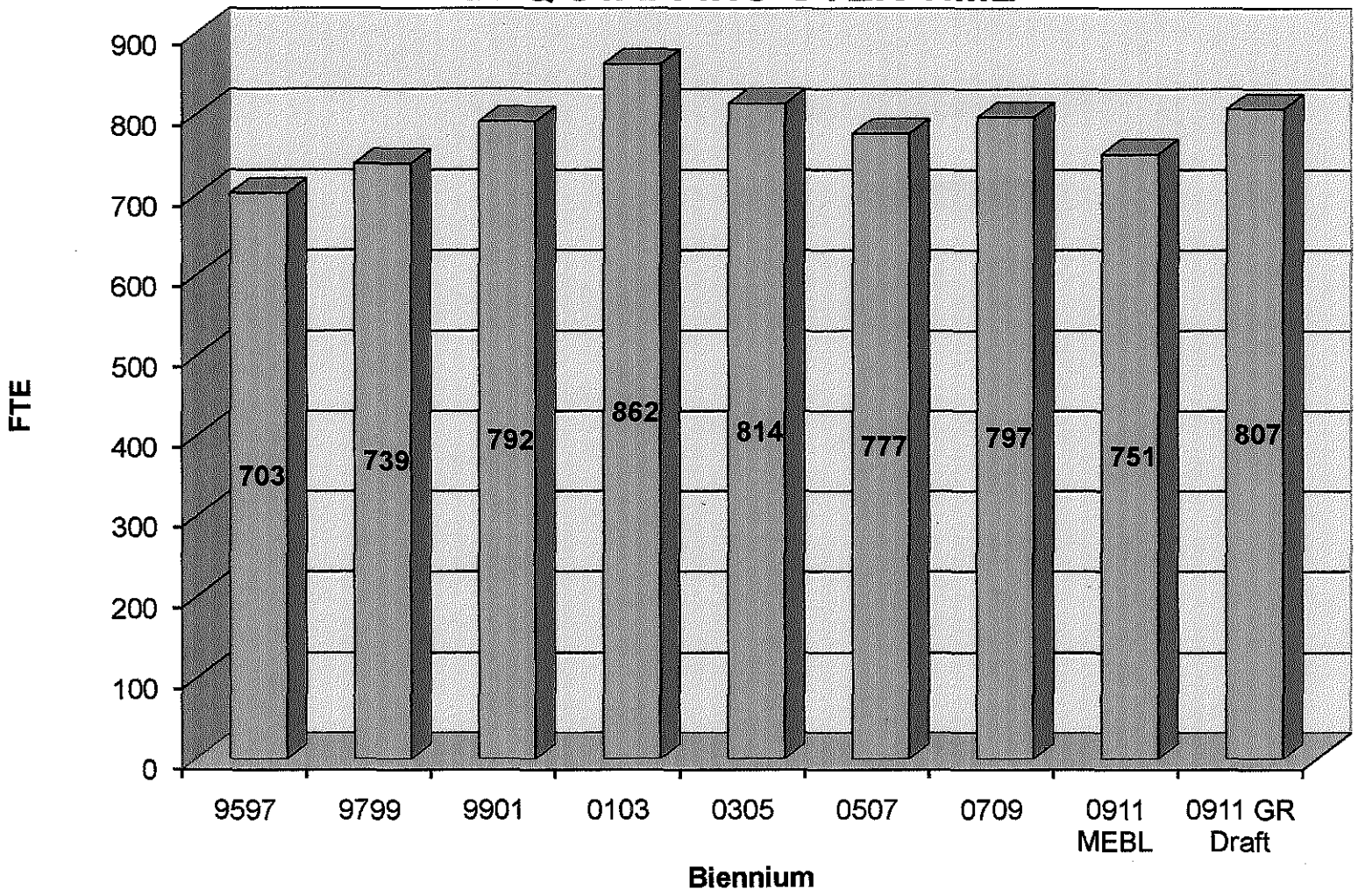


Figure 4
DEQ STAFFING OVER TIME



Attachment A
Included in GRB

PKG NO	Package Title	Limitation	FTE	GENERAL	LOTTERY	OTHER	FEDERAL	Notes
GR01	LRAPA	(73,690)	0.00	(73,690)				LRAPA would reduce sampling frequency of its only air toxics monitor, putting the data reliabiility for trend analysis in question. LRAPA would also reduce compliance work and complaint response related to open burning and residential wood heating in the Eugene-Springfield area where PM 2.5 concentrations are close to exceeding the federal standard.
GR02	Diesel Grant Funds	(306,045)	0.00	(306,045)				Diesel particulate matter ranks in the top three air toxics of concern in Oregon. Cutting a portion of the grant funding would diminish the public health benefit from diesel emission reduction grants.
GR02ADD	Diesel Grant Funds	(300,000)	0.00	(300,000)				Extra amount taken from the above subprogram area.
GR03	AQ Local Government Outreach	(41,450)	0.00	(41,450)				Reduces funding for local government fine particulate reduction outreach. DEQ support for these former non-attainment areas is a federal requirement of the State Implementation Plan (SIP). Work includes: daily air quality advisories, voluntary woodstove curtailment programs and conducting wood smoke public education activities to reduce emissions. May result in higher fine particulate emission or in some communities violation of the federal standard.
GR04	AQ Reduce Small Business Assistance	(130,562)	-0.50	(130,562)				Reduces most of the technical assistance to small, non-permitted businesses that are not required to comply with the federal Clean Air Act. With only .25 FTE state-wide remaining after this cut, it would lead to more pollution in the environment and a higher health risk to the public.
GR05	Eliminate Oregon Plan Biomonitoring	(850,661)	-4.00	(850,661)				DEQ would no longer be able to meet monitoring commitments to the Oregon Plan as part of the Coastal Coho Recovery Plan. This work includes: • Coordination with and training ODFW crews on the collection of temperature data at 21 locations and macroinvertrbrate samples at 160 locations along the coast. • Processing, analyzing and reporting on the information associated with the data collection in the 21 coastal coho population units. • Support the collection, analysis and reporting of additional ambient sites on the Oregon coast. • Provide technical assistance to other agencies on related programs that collect water quality and biological data to determine the effectiveness of management activities. • Facilitate macroinvertebrate data processing and analysis from watershed councils. • Participate in the Oregon Plan Core team or Monitoring team meetings.

Attachment A
Included in GRB

PKG NO	Package Title	Limitation	FTE	GENERAL	LOTTERY	OTHER	FEDERAL	Notes
GR06	Reduce HW Compliance Inspections	(264,122)	-1.00	(264,122)				Reduce HW inspection staff by 1 FTE, or approximately 10%. This would result in: ▪ approximately 26 fewer inspections of regulated generators per year (8 Large Quantity and 18 Small Quantity) and ▪ a reduced ability to respond to complaints (about 10 – 20 fewer complaint inspections)
GR07	Reduce Ozone, Fine Particulate Monitoring	(304,201)	-1.50	(304,201)				Eliminates new ozone and fine particulate monitoring provided in the 2007-2009 budget. Lost monitors include: All Eastern Oregon ozone monitors at a time when EPA has tightened the standard. Fine particulate monitors in Madras, Redmond, McMinnville and a background site near Klamath Falls. All sites (except the background site) are at risk of exceeding the standard and are likely above the health level of concern. Losing the background site for Klamath Falls will make develoment of an implementation strategy for this non-attainment area more difficult.
GR08	Reduce Fine Particulate Planning	(179,836)	-1.00	(179,836)				Eliminates an Air Quality Planner developing and coordinating fine particulate and ozone reduction strategies and carrying out mandatory CAA requirements for new federal standards. Delays work to develop an air quality plan for returning Klamath Fall's air to healthy levels. Extended violation of the fine particulate standard negatively impacts public health and economic development in the area. Postpones pollution prevention outreach and strategy development in Oregon communities at risk of violating federal standards and slows the implementation of CAA requirements mandated by new standards.
GR10	Reduce Clean Diesel Outreach	(452,775)	-2.00	(452,775)				Reduce clean diesel outreach work aimed at recruiting fleet owners to clean up their diesel engines. Work includes marketing the state's tax credit program, coordinating entities to take advantage of state and federal grant programs, promoting idle reduction strategies and participating in the development of a regulatory program. Diesel particulate matter ranks in the top three air toxics of concern in Oregon. A two FTE reduction would cut in half the current staff promoting clean diesel. Loss of staff would most likely reduce Oregon's success in obtaining and administering grants.
GR11	Eliminate 1 Air Toxic Monitoring Site	(215,110)	-1.00	(215,110)				Eliminate a Medford air toxic monitoring site. Loss of this background site will make interpretation of air toxics data from the population orientated site in Medford more difficult. Long term, DEQ would move this site to other communities with air toxic levels modeled to be above the health benchmarks.
070	Restore TMDL Lottery Pkg 070 Cuts	239,405	1.00		239,405			Restoration of 1 FTE based on LF.

Attachment A
Included in GRB

PKG NO	Package Title	Limitation	FTE	GENERAL	LOTTERY	OTHER	FEDERAL	Notes
090	Shift TMDL Funding to Lottery	-		(500,000)	500,000			Fund shift from GF to LF.
082	Electronics Recycling Law Implementation	8,220,000				8,220,000		Program limitation was approved at the September 2008 Emergency Board Meeting. This package is an adjustment for the 2009-11 GRB.
110	Climate Change: Greenhouse Gas Reduction	2,335,537	7.75	1,183,869		1,151,668		The DEQ LC's (998 and 605) will provide authority for EQC to adopt a cap and trade program after gathering input from the public through the Oregon Climate Initiative Task Force, fill gaps in EQC's authority to require GHG emission reporting, add fees to fund the cap and trade and reporting work, and add authority to adopt other GHG emission reduction measures and incentives. While the package requests 7.75 FTE in total, the GF portion is 1.75 FTE (phased-in). GF would support a manager for the Climate Change section, 2 positions for GHG reduction planning (complimentary measures) and a policy analyst to work with EPA, regional, national and international organizations on policies to meet GHG reduction goals. The GF request would also include funding for dues to the Western Climate Initiative (WCI) and The Climate Registry (TCR), contract dollars for database development, facilitation for the Oregon Climate Initiative Task Force, economic analysis, DOJ resources and funds to support similar activities for LRAPA.
113	Maintain Streamlined Vehicle Inspection	3,472,326	17.63			3,472,326		Policy package restores current staffing levels with increased revenues based on a fee increase.
114	Implement New Federal Air Toxics Requirements	872,297	6.00			872,297		EPA's new National Emission Standards for Hazardous Air Pollutants (NESHAPs) regulations apply to area sources, many of which are small businesses that will be required to obtain an air quality permit for the first time. Many of the new area source NESHAP regulations are relatively easy to administer compared to requirements for major sources, so DEQ will provide these sources with simplified, lower cost, general Air Contaminant Discharge Permits (ACDP). DEQ is requesting nine positions (phased-in) to work with the approximately 2,600 new sources expected in the biennium. Funding for the package is from permit fees applied to a large number of newly regulated area sources. DEQ is also requesting legislation (LC 407) to provide area sources with an alternative to traditional permitting.

Attachment A
Included in GRB

PKG NO	Package Title	Limitation	FTE	GENERAL	LOTTERY	OTHER	FEDERAL	Notes
116	Clean-Air Transportation Collaboration	560,083	3.00			560,083		Policy package requests new resources for DEQ and Lane Regional Air Protection Agency (LRAPA) to assist local, regional and state transportation agencies in planning, constructing and operating transportation infrastructure to avoid or minimize air quality impacts. This includes participation in metropolitan planning organizations, technical analyses of system impacts and alternatives, developing air quality performance standards for transportation projects, and addressing public concerns about air quality during project review. Funding would be provided from new transportation funding proposals through an interagency agreement with ODOT.
117	Field Burning	172,683	1.00	172,683				Policy package provides resources to implement LC 1000, which addresses three issues related to field burning: 1) responds to Governor Kulongoski's directive to phase out field burning in the Willamette Valley by 2011; 2) provides rulemaking authority for the EQC to establish field burning requirements in counties outside Willamette Valley when needed to implement the federal Clean Air Act (CAA); 3) allows DEQ to analyze and recommend improvements to interagency coordination of smoke management programs.
119	Complete Title V Staffing Phase-in	177,432	1.00			177,432		Policy Package adds a regional position in 2009-2011 as agreed to in the 2007 fee increase negotiations.
121	Ongoing Implementation of Senate Bill 737	335,290	0.75			335,290		Passed in 2007, SB 737 requires DEQ to consult with interested parties to develop a list of priority persistent pollutants that have a documented effect on human health, wildlife and aquatic life by June 2009. The bill also requires DEQ to report to the Legislature in June 2010 on point, nonpoint, and legacy sources of priority persistent pollutants from existing data, and source reduction and control methods that can reduce discharges. The bill also requires Oregon's large municipal wastewater treatment plants to develop plans by 2011 to reduce persistent pollutants through pollution prevention and toxics reduction. Work began in July 2008 and is funded by a two-year surcharge fee on Oregon's 52 largest municipal wastewater plants. This package continues the limitation for the two positions that are funded for two years by the surcharge. (Approximately $175,000 via fees)
123	Drinking Water Protection	1,084,733	5.50			1,084,733		This package continues federally-funded limited duration positions to help carry out the requirements of the 1996 Federal Safe Drinking Water Act Amendments (SDWA) and assist communities with protecting their public water sources.

Attachment A
Included in GRB

PKG NO	Package Title	Limitation	FTE	GENERAL	LOTTERY	OTHER	FEDERAL	Notes
124	Clean Water State Revolving Fund Program	658,018	4.00			658,018		The purpose of this package is to ensure there are adequate resources to complete the required Environmental Review for all new SRF projects. Additionally, this package will include technical positions to assist municipalities regarding water and wastewater infrastructure and opportunities for reducing their carbon footprints, work associated with the required EPA Clean Watershed Needs Survey, and additional "marketing" of the SRF program that EPA has suggested.
126	Coastal Beach Bacteria Monitoring	216,197	1.25			216,197		This package continues the work we do to monitor beaches in Oregon. This package will increase by .2 FTE from the 2007-09 budget to help out during the busy monitoring times.
127	Water Quality 401 Project Certification	509,355	2.90			509,355		This proposal includes fully funding existing positions and adding an additional 1.5 FTE for a total of 3.5 FTE plus manager time and funds for needed Information Technology work. Approval of the fee increase will allow us to better protect water quality in the state and provide increased assistance to guide applicants through the 401 certification process through: • Timely review of all project proposals. • Increased participation in pre-application meetings. • Development of guidance documents. • Participation in the state streamlining efforts. • Coordination and integration of other DEQ program requirements when appropriate. • Increase customer service and efficiency.
132	Product Stewardship for Waste Products	277,890	1.83			277,890		Requests two positions to increase DEQ's emphasis on using the product stewardship approach to increase recycling and reuse and to provide incentives to reduce toxics, greenhouse gas emissions, and other environmental impacts of various products. The additional staff would continue product and environmental research and the dialog with stakeholders to develop product stewardship programs and associated legislative proposals for 2011, support voluntary take back and other product stewardship initiatives toxic and difficult to manage waste products and track product stewardship initiatives elsewhere to make Oregon's approach consistent with other states, where appropriate.
140	Information Management Infrastructure	210,305	1.00			210,305		Requests an Information Services Manager. This position will manage software development and maintenance for complex requirements needed for cross-program and secure E-Commerce applications.
150	Environmental Information Exchange Network	564,895	3.00				564,895	Continues three federally-funded positions working on the Environmental Information Exchange Network. The Exchange Network will be used in part to monitor greenhouse gase, critical to achieving the greenhouse gas reduction goals of HB 3543 (2007).

Attachment A
Included in GRB

PKG NO	Package Title	Limitation	FTE	GENERAL	LOTTERY	OTHER	FEDERAL	Notes
162	Water Quality Review for ASR Projects	401,851	2.00	401,851				The purpose of this package is to allow DEQ to work with WRD, agricultural and other stakeholders to ensure that future ASR and AR projects don't result in further degradation of shallow groundwater quality, but rather restore water quantity in depleted deep aquifers while simultaneously improving shallow aquifer quality. This package also includes funds for DEQ to work with the Water Resources Department to develop a comprehensive water supply and quality strategic plan for Oregon.
166	Restore Onsite Septic System Program	522,035	2.50			522,035		The purpose of this package is to restore the existing positions that we cannot afford for the 2009-11 Biennium. The WQ Program expects to have 4-5 FTE that will be unaffordable next biennium.
181	Clean Water SRF - Loans & Bonds	30,060,000				30,060,000		Package to fund Clean Water SRF loans and bonds activities
191	Clean Water SRF - Debt Service	10,020,000				10,020,000		Package to fund Clean Water SRF debt service.
		57,791,880	51.11	(1,860,049)	739,405	58,347,629	564,895	

Attachment B
DEQ DRAFT 2009 LEGISLATIVE CONCEPTS

Agency Number	Name	Problem Statement	Brief Description of Proposal	PP	Fund Type	Relates to Toxics(T), Water(W), Climate Chg(C), Infrast(I)
LC 998	**Greenhouse Gas Reduction - Cap-and-Trade (POP 110)**	HB 3543 (2007) established Greenhouse Gas (GHG) reduction goals for Oregon. Many different approaches will be needed to reduce greenhouse gas (GHG) emissions in Oregon and meet the goals. Oregon's GHG reduction strategy relies on two main avenues for success: participation in a regional emissions cap-and-trade program (LC 998), and targeted actions (complementary measures) (LC 605) focused on reducing GHG's from key source sectors.	The LC establishes the Oregon Climate Initiative Task Force to gather public input, requires the EQC to adopt cap-and-trade rules, requires DEQ to submit a cost/benefit analysis to the 2011 Legislature and allows the Legislature to review and request changes prior to implementation. The concept also expands GHG reporting requirements and sets fees to cover the cost of administering the cap-and-trade and reporting programs.	Y	GF/OF	C
LC 605	***Greenhouse Gas Reduction - Complementary Measures (POP 110)***	*HB 3543 (2007) established Greenhouse Gas (GHG) reduction goals for Oregon. Many different approaches will be needed to reduce greenhouse gas (GHG) emissions in Oregon and meet the goals. Oregon's GHG reduction strategy relies on two main avenues for success: participation in a regional emissions cap-and-trade program (LC 998), and targeted actions (complementary measures) (LC 605) focused on reducing GHG's from key source sectors. (**Note**: new LC)*	*LC 605 is a Governor's priority and compliments the cap-and-trade LC. It authorizes the Environmental Quality Commission (EQC) to adopt targeted strategies (complementary measures) to reduce greenhouse gas emissions from a variety of key source sectors, such as transportation fuels (Low Carbon Fuel Standard), large engines (reducing idling and retrofitting vehicles) , and high greenhouse gas emitting commercial products when safe, cost-effective alternatives are available.*	*Y*	*GF*	*C*
LC 382	**Heat Smart for Clean Air**	Residential heating with old, uncertified woodstoves releases fine particles and air toxics such as benzene that contribute to a myriad of human health effects. Heat Smart is a critical component of plans to meet and maintain the federal fine particulate standard and meet state air toxics benchmarks.	Similar to 2007 SB 338, which did not pass, but Legislators encouraged DEQ to bring it back for the 2009 session. The grant program has been removed and LC now has no fiscal impact. However, LC is critical for meeting and maintaining compliance with federal fine particulate standards. Requires state-wide removal of uncertified wood stoves when a home sells to accelerate the turnover of old, uncertified stoves; allows Environmental Quality Commission to set standards for new woodstoves, outdoor wood boilers and other uncontrolled wood burning devices. Uncertified woodstoves burn about 70% dirtier than certified woodstoves.	Y	GF	T
LC 999	***Clean Emission Standards for Nonroad Vehicles (LC only)***	*Diesel engine exhaust is one of the most prevalent toxic air pollutants in Oregon, and contributes significantly to fine particulate pollution, regional haze, smog and global warming. (**Note**: not being pre-Session filed)*	*The LC will address a gap (non-road engines) in the Environmental Quality Commission's (EQC) authority to establish emission standards for diesel engines that could lead to "dumping" of older, dirtier, vehicles from California into Oregon.*	*N*		*T*
LC 407	**Alternatives to Permitting**	EPA is about to adopt national air toxics standards (National Emissions Standards for Hazardous Air Pollutants -NESHAP) for 70 different source categories. Most are small businesses (area sources) and include businesses like auto body repair shops, paint strippers and parts coaters. They would like compliance options other than a permit.	The LC will authorize a registration fee (lower than a permit fee) for source categories that choose compliance options beyond compliance required by a permit.	N	OF	T
LC 409	**Technical Correction for Title V fees**	SB 107, adopted in 2007, increased Title V fees and changed the frequency of the Consumer Price Index (CPI) rulemaking but failed to make corresponding changes in the CPI calculation. The net effect is a loss of one CPI increase each biennia.	The LC will correct the 2007 legislation and provide for CPI increases as intended.	N	OF	

Attachment B
DEQ DRAFT 2009 LEGISLATIVE CONCEPTS

Agency Number	Name	Problem Statement	Brief Description of Proposal	PP	Fund Type	Relates to Toxics(T), Water(W), Climate Chg(C), Infrast(I)
LC 1000	**Field Burning Phase-down and Smoke Management Coordination (POP 117)**	Reducing burning is a key strategy to improve air quality in Oregon and a Governor's priority.	This concept is a Governor's priority. LC 1000 addresses three issues related to field burning: 1) responds to Governor Kulongoski's directive to phase out field burning in the Willamette Valley by 2011; 2) provides rulemaking authority for the EQC to establish field burning requirements in counties outside Willamette Valley when needed to implement the federal Clean Air Act (CAA); 3) allows DEQ to analyze and recommend improvements to interagency coordination of smoke management programs.	Y	GF	T
LC 1001	**Bottle Bill Changes (LC only)**	The bottle bill task force has developed recommendations for further changes to the bottle bill law. These recommendations include expansion for additional beverage containers, an increase in the amount of the redemption, and establishing a container return rate goal.	This legislative concept incorporates the task force recommendations.	N	TBD/OF	C
LC 888	***132 - Producer Responsibility for Waste Products***	*Some products have unique waste management challenges. They contain toxics or multiple materials, making them costly and difficult to recycle or safely dispose of in the traditional waste management system. As a result, the public lacks convenient and safe recycling or disposal options. This increases the risk of mismanagement and human health / environment impacts. Finally, where these products are handled through the current system, local governments and ratepayers bear the fiscal burden. (**Note**: not being pre-Session filed)*	*The LC requires manufacturers rather than local governments to manage specified products so as to enhance their recycling or safe disposal. Through this LC, the Legislature would define the process/criteria for DEQ to identify the appropriate products or categories. The EQC would make the final determination under the statute. Specified products could not be sold unless DEQ approved the manufacturer's plan for the collection, recycling or safe disposal of these products.*	*Y*	*OF*	*C, T*
LC 1002	**127 - Water Quality 401 Project Certification**	The 401 Water Quality Certification (fill and removal projects) program's fee structure exempts approximately 52% of applicants from fees. Many of these dredge and fill projects in rivers, lakes, streams, and wetlands are complex and take a great deal of time.	The purpose of this proposal is to remove/modify the exemptions and have a equitable fee structure that will provide sustainable funding for the program.	Y	OF/fees	W
LC 1003	**Penalty Maximum Enhancement (LC only)**	The $10,000 per day statutory maximum penalty applicable to most DEQ penalties, and the $20,000 per day maximum penalty applicable to negligent spills of oil into waters of the state, were set in 1973. Because of inflation, today's penalties are only worth 20% to 25% of their original potency.	Increase the statutory maximum penalties.	N		T, W
	Definitions					
	N=No					
	X=Yes					
	PP=Policy Package					
	LC=Legislative Concept					

Fact Sheet

2009–11 DEQ Budget Overview

Background

Oregonians expect DEQ to protect the state's air and water, to ensure that waste is managed and disposed of safely, to clean up past occurrences of pollution, and to respond to environmental emergencies. In the 2003-05 biennium, cuts in state General Funds coupled with a continuing decline in federal dollars jeopardized DEQ's ability to meet these expectations. The 2007-09 state budget significantly restored funding and staffing levels needed to deliver core programs and services to Oregonians.

Although DEQ sought to continue restoring funding and staffing levels with its 2009-11 Agency Request Budget, the recent steep economic downturn has again triggered state fiscal belt tightening. As the state budget situation unfolds, DEQ will continue to focus its limited resources on core environmental services and employ conservative spending approaches and hiring practices.

2009-11 Governor's Recommended Budget for DEQ

The 2009-11 Governor's Recommended Budget eliminated about $3.1 million of current DEQ activities. This will result in:

- A decrease in grants available for reducing diesel emissions;
- Reduced ozone and fine particulate monitoring;
- Fewer hazardous waste compliance inspections;
- Reduced funding for local government assistance; and
- Decreased biomonitoring that supports the Oregon Plan for Salmon and Watersheds.

At the same time, the Governor's Recommended Budget added General Fund monies to support:

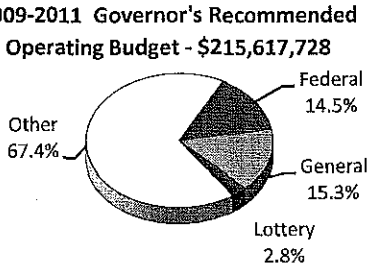
- Development of a program to work toward meeting the Legislature's goal to reduce greenhouse gas levels to 10 percent less than 1990 levels by the year 2020 (1.75 positions);
- Phasing down field burning in the Willamette Valley (one position); and
- DEQ's participation in aquifer storage and recovery work (two positions).

Additionally, the Governor's Recommended Budget includes fee increases to maintain current activities, such as the Vehicle Inspection Program; support for some new work, including expansion of the Clean Water State Revolving Fund technical assistance for water quality improvements in local communities; and continuation of current work, including drinking water protection, beach monitoring, and the Environmental Network Exchange.

How will DEQ's 2009-11 Governor's Recommended Budget be funded?

The governor and Legislature will decide whether to approve DEQ's budget as proposed by the governor. The total $345.8 million DEQ budget includes:

- An **"operating budget"** for day-to-day work of $215.6 million.



The operating budget contains $1.8 million General Fund monies and $4.7 million in "other" funds for new work, including support for climate change efforts and water quality improvements. It also contains $5.9 million of other and federal funds to continue current work that would otherwise go unfunded. The new funding increases full-time equivalent positions to 807, from 797 in the 2007-09 biennium.

- A **"debt service budget"** to pay debt service on bonds issued for environmental cleanup and to provide low-interest loans for clean water projects including wastewater treatment plants. This would be funded with $5.5 million in General Funds and $14.6 million from other funds.
- A **"nonlimited budget,"** primarily $110 million in low-interest loans for clean water projects. This would be funded with federal grants and loan fees and repayments from the Clean Water State Revolving Fund program.

State of Oregon
Department of Environmental Quality

Office of the Director
811 SW 6th Avenue
Portland, OR 97204
Phone: (503) 229-5696
(800) 452-4011
Fax: (503) 229-6124
www.oregon.gov/DEQ/

DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

Contacts:

Dick Pedersen
Director
(503) 229-5300

Greg Aldrich
Government Relations Manager
(503) 229-6345

Alternative formats
Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or call toll-free in Oregon at 1-800-452-4011, ext. 5696.

Last updated: 12/03/08
By: M. Aerne
DEQ-08-

OFFICE OF THE SENATE PRESIDENT

900 Court St., N.E., Room S-203
Salem OR 97301
www.leg.state.or.us/senate/senpres

NEWS RELEASE

Contact: Robin Maxey
(503) 986-1605
robin.maxey@state.or.us

December 9, 2008

SENATE PRESIDENT ANNOUNCES COMMITTEES; SETS STAGE FOR BI-PARTISAN COOPERATION

SALEM –Senate President Peter Courtney today announced chairs, vice chairs and membership of the Senate committees for the 2009 legislative session, along with the Senate members of the Joint Ways and Means Committee and its subcommittees.

"In a truly bi-partisan way, I believe this committee line-up puts the Senate team in the best position to succeed for the people of Oregon in these challenging times," said Courtney, D-Salem/Gervais/Woodburn. "Every Senator – Democrat and Republican – brings a different set of skills to the playing field and I believe they have each been matched with committee assignments that will allow them to reach their full potential."

Democrats will chair the 10 Senate committees with Republicans serving as vice chair of each committee. Meanwhile, a member of the Republican minority is among the seven Senate co-chairs of the Ways and Means subcommittees.

Legislative leaders have agreed that each of the Ways and Means subcommittees will have Senate and House co-chairs in 2009. Additionally, leaders have created a Capital Construction and Information Technology Subcommittee in anticipation of early session efforts to create jobs through bond funding for deferred maintenance projects. In the past, the subcommittee has not been added until late in the legislative session.

Courtney also re-aligned the Senate committee structure to include committees that will focus on rural health policy, consumer protection and veterans' issues.

SENATE COMMITTEES

Business & Transportation
Sen. Rick Metsger, Chair
Sen. Bruce Starr, Vice Chair
Sen. Joanne Verger
Sen. Larry George
Sen. Peter Courtney *

Commerce & Workforce Development
Sen. Diane Rosenbaum, Chair
Sen. Chris Telfer, Vice Chair
Sen. Floyd Prozanski
Sen. Laurie Monnes Anderson
Sen. Larry George

Consumer Protection & Public Affairs
Sen. Suzanne Bonamici, Chair
Sen. Larry George, Vice Chair
Sen. Diane Rosenbaum
Sen. Ginny Burdick
Sen. Fred Girod

Education & General Government
Sen. Mark Hass, Chair
Sen. Frank Morse, Vice Chair
Sen. Rick Metsger
Sen. Suzanne Bonamici
Sen. Jeff Kruse

Environment & Natural Resources
Sen. Jackie Dingfelder, Chair
Sen. Jason Atkinson, Vice Chair
Sen. Floyd Prozanski
Sen. Mark Hass
Sen. Brian Boquist

Finance & Revenue
Sen. Ginny Burdick, Chair
Sen. Frank Morse, Vice Chair
Sen. Diane Rosenbaum
Sen. Mark Hass
Sen. Chris Telfer

Human Services & Rural Health Policy
Sen. Bill Morrisette, Chair
Sen. Jeff Kruse, Vice Chair
Sen. Laurie Monnes Anderson
Sen. Joanne Verger
Sen. Chris Telfer

Health Care & Veterans' Affairs
Sen. Laurie Monnes Anderson, Chair
Sen. Jeff Kruse, Vice Chair
Sen. Alan Bates
Sen. Bill Morrisette
Sen. Frank Morse

Judiciary
Sen. Floyd Prozanski, Chair
Sen. Brian Boquist, Vice Chair
Sen. Suzanne Bonamici
Sen. Jackie Dingfelder
Sen. Doug Whitsett

Rules
Sen. Richard Devlin, Chair
Sen. Ted Ferrioli, Vice Chair
Sen. Ginny Burdick
Sen. Rick Metsger
Sen. Jason Atkinson

JOINT COMMITTEES

Joint Ways & Means
Sen. Margaret Carter, Co-Chair
Sen. Betsy Johnson, Vice Chair
Sen. Alan Bates
Sen. Vicki Walker
Sen. Joanne Verger
Sen. Rod Monroe
Sen. Jackie Winters
Sen. David Nelson
Sen. Doug Whitsett
Sen. Fred Girod

Human Services Subcommittee
Sen. Alan Bates, Co-Chair
Sen. Margaret Carter
Sen. Jackie Winters

Education Subcommittee
Sen. Rod Monroe, Co-Chair
Sen. Richard Devlin
Sen. Fred Girod

General Government Subcommittee
Sen. Jackie Winters, Co-Chair
Sen. Betsy Johnson
Sen. Peter Courtney *

Capital Construction & Information Technology Subcommittee
Sen. Peter Courtney, Co-Chair
Sen. Margaret Carter
Sen. David Nelson

Natural Resources Subcommittee
Sen. Vicki Walker, Co-Chair
Sen. Jackie Dingfelder
Sen. David Nelson

Public Safety Subcommittee
Sen. Joanne Verger, Co-Chair
Sen. Vicki Walker
Sen. Doug Whitsett

Transportation & Economic Development Subcommittee
Sen. Betsy Johnson, Co-Chair
Sen. Rod Monroe
Sen. Bruce Starr

** Once appointed, the incoming senator in District 20 will replace the Senate President on these two committees.*

Off

Office of the Speaker

Oregon House of Representatives
Room 269, State Capitol, Salem, Oregon

December 11, 2008

Contact Geoff Sugerman
503-981210

House Committee Assignments Released

Hunt Says Committees Chairs Will Produce Results

SALEM -- Speaker-designee Dave Hunt today announced committee assignments for the 2009 Legislative session of the Oregon House of Representatives, calling on House members to focus on producing results for Oregon.

"In the selection of committee chairs and vice chairs, I put a high premium on those members I thought would deliver results. This is a session where we must work to solve the very difficult economic problems facing our state. We've got work to do and I believe these committees will get Oregon back on track," said Hunt (D-Clackamas County).

Joint Ways and Means subcommittees will be co-chaired by a House and a Senate member. Three committees and four subcommittees from last session have been folded into other committees in an effort to reduce legislative costs and work more efficiently.

Democrats, who hold a 36-24 majority in the House, will chair the 16 policy committees and six of seven ways and means subcommittees. Long-time Capitol veteran and Republican Bob Jenson has been tapped by Hunt to lead the Natural Resources subcommittee of Ways and Means.

All the chairs, said Hunt, have solid experience in the policy areas they will manage, as well as experience running committees. Each committee has a Republican and Democratic vice-chair.

"With 14 members coming into the House who have never served before in a full session, our committee chairs are going to have to provide leadership and efficient direction to their committees," said Hunt. "Our goal is to begin hearing policy bills very early in the session, and I have asked committee chairs to provide me with work plans that will allow us to get through with the Legislative session by the end of June."

Hunt said one committee that typically does not work until late in the session – the Capital Construction and Information Technology subcommittee of Ways and Means – will at his request be meeting early in the session as part of the efforts to spur Oregon's economy. State Rep. Larry Galizio (D-Tigard) will chair that subcommittee.

Other new committee chairs include:

State Rep. Tobias Read (D-Beaverton), Sustainability and Economic Development
State Rep. Jean Cowan (D-Newport), Veterans and Emergency Services Committee;
State Rep. Brian Clem D-Salem), Agriculture, Natural Resources and Rural Communities Committees;
State Rep. Sara Gelser (D-Corvallis), House Education Committee;
State Rep. Jeff Barker (D-Tigard), House Judiciary Committee
State Rep. Ben Canon (D-Portland), Environment and Water
State Rep. Betty Komp (D-Woodburn), Education subcommittee of Ways and Means
State Rep. Tina Kotek (D-Portland), Health and Human Services Subcommittee of Ways and Means;
State Rep. David Edwards (D-Hillsboro), Transportation and Economic Development Subcommittee.

The full list of committees appears below.

Agriculture, Natural Resources and Rural Communities
- Brian Clem, Chair
- Suzanne VanOrman, Vice Chair
- Wayne Krieger, Vice Chair
- Terry Beyer
- Vic Gilliam
- Arnie Roblan
- Mike Schaufler
- Matt Wingard

Business and Labor Committee
- Mike Schaufler, Chair
- Brent Barton, Vice Chair
- Kevin Cameron, Vice Chair
- Chris Edwards
- Sal Esquivel
- Paul Holvey
- Bill Kennemer
- Greg Matthews
- Kim Thatcher
- Brad Witt

Business and Labor Subcommittee on Work Force Development
- Brad Witt, Chair
- John Huffman, Vice Chair
- Michael Dembrow
- Sal Esquivel
- Paul Holvey

Consumer Protection Committee
- Paul Holvey, Chair
- Chuck Riley, Vice Chair
- Jim Weidner, Vice Chair
- Brent Barton
- Jean Cowan
- Vic Gilliam
- Wayne Krieger
- Greg Matthews
- Carolyn Tomei
- Matt Wingard

Education Committee
- Sara Gelser, Chair
- Michael Dembrow, Vice Chair
- Sherrie Sprenger, Vice Chair
- Chris Harker
- John Huffman
- Betty Komp
- Ron Maurer
- Arnie Roblan
- Kim Thatcher
- Suzanne VanOrman

Environment and Water Committee
- Ben Cannon, Chair
- Jefferson Smith, Vice Chair
- Vic Gilliam, Vice Chair
- Jules Bailey
- Phil Barnhart
- Cliff Bentz
- Debbie Boone
- Bob Jenson

Health Care Committee
- Mitch Greenlick, Chair
- Chris Harker, Vice Chair
- Ron Maurer, Vice Chair
- Scott Bruun
- Ben Cannon
- Michael Dembrow
- Chris Garrett
- Bill Kennemer
- Tina Kotek
- Jim Thompson

House Administration Committee
- Arnie Roblan, Chair
- Bruce Hanna, Vice Chair
- Kevin Cameron
- Dave Hunt
- Betty Komp
- Mary Nolan
- Andy Olson

Human Services Committee
- Carolyn Tomei, Chair
- Debbie Boone, Vice Chair
- Andy Olson, Vice Chair
- Jean Cowan
- Brian Clem
- Michael Dembrow
- Tim Freeman
- John Huffman
- Ron Maurer
- Suzanne VanOrman

Judiciary Committee
Chair Jeff Barker, Chair
- Judy Stiegler, Vice Chair
- Gene Whisnant, Vice Chair
- Brent Barton
- Kevin Cameron
- Chris Garrett
- Wayne Krieger
- Andy Olson
- Chip Shields
- Jefferson Smith

Land Use Committee
- Mary Nolan, Chair
- Chris Garrett, Vice Chair
- Sal Esquivel, Vice Chair
- Brian Clem
- Jean Cowan
- Mitch Greenlick
- Bruce Hanna
- Matt Wingard

Sustainability and Economic Development Committee
- Tobias Read, Chair
- Larry Galizio, Vice Chair
- Scott Bruun, Vice Chair
- Jules Bailey
- Vic Gilliam
- Chris Harker
- Matt Wingard
- Brad Witt

Transportation Committee
- Terry Beyer, Chair
- Nick Kahl, Vice Chair
- George Gilman, Vice Chair
- Jules Bailey
- Cliff Bentz
- Vicki Berger
- Debbie Boone
- David Edwards
- Mike Schaufler
- Jim Weidner

Revenue Committee
- Phil Barnhart, Chair
- Jules Bailey, Vice Chair
- Cliff Bentz, Vice Chair
- Chuck Riley
- Sara Gelser
- Tobias Read
- Nick Kahl
- Sherrie Sprenger
- Scott Bruun
- Vicki Berger

Rules Committee
- Arnie Roblan, Chair
- Chris Edwards, Vice Chair
- Vicki Berger, Vice Chair
- Bill Garrard
- Sara Gelser
- Bob Jenson
- Mary Nolan
- Tobias Read

Veterans and Emergency Services Committee
- Jean Cowan, Chair
- Greg Matthews, Vice Chair
- Tim Freeman, Vice Chair
- Debbie Boone
- Sal Esquivel
- Betty Komp
- Chuck Riley
- Jim Weidner

Joint Committees

Joint Ways & Means Committee
- Peter Buckley, Co-Chair
- Nancy Nathanson, Vice Chair
- David Edwards
- Larry Galizio
- Bill Garrard
- George Gilman
- Bob Jenson
- Betty Komp
- Tina Kotek
- Dennis Richardson
- Chip Shields
- Greg Smith

Capital Construction and Information Technology Subcommittee
- Larry Galizio, Co-Chair
- Bill Garrard
- Dave Hunt
- Bob Jenson
- Nancy Nathanson
- Chuck Riley

Education Subcommittee
- Betty Komp, Co-Chair
- David Edwards
- Larry Galizio
- Greg Smith
- Judy Stiegler
- Gene Whisnant

General Government Subcommittee
- Nancy Nathanson, Co-Chair
- Bill Garrard
- Chris Harker
- Dennis Richardson
- Jefferson Smith

Health Human Services Subcommittee
- Tina Kotek, Co-Chair
- Mitch Greenlick
- Bill Kennemer
- Carolyn Tomei
- Dennis Richardson

Natural Resources Subcommittee
- Bob Jenson, Co-Chair
- Peter Buckley
- Ben Cannon
- Brian Clem
- Chris Edwards
- Jim Thompson

Public Safety Subcommittee
- Chip Shields, Co-Chair
- Jeff Barker
- Tim Freeman
- Nick Kahl
- Nancy Nathanson
- Greg Smith

Transportation and Economic Development Subcommittee
- David Edwards, Co-Chair
- Terry Beyer
- George Gilman
- Mike Schaufler
- Kim Thatcher
- Brad Witt

EQC Visitor Sign In/Out Sheet

Date	Time In	Time Out	Name	Representing
12-11-08	7:55A	4:35	CRAIG HESS	MARTIN ENTERPRISES / DEQ
"	8:00	4:45	Donald Dodson	EQC Commission
"	8:00	5:00	DICK PEDERSEN	EQC
"	8:00	4:30	RICHARD DUVAL	DEQ - HERMISTON
"	8:15	4:30	Larry Knudsen	DOS
"	8:28	4:35	Anthony Barber	US EPA
"	8:31	10:30	Wendy Wiley	DEQ
"	8:31	10:30	Loretta Pickerell	DEQ
"	8:31	4:40	Tom Roick	DEQ
"	"	4:40	Palmer Mason	DEQ
"	8:45	1:30	Neil Mullane	DEQ
"	8:45	1:30	Annette Liebo	DEQ
"	8:55	11:04	Preston Martin	PGE
"	855	1110	Tim Bergam	PLC Recycling
"	9:00	11:04	Maggie Vandehey	DEQ
"	9:05	1:35	Greg Aldrich	DEQ

EQC Visitor Sign In/Out Sheet

Date	Time In	Time Out	Name	Representing
12/11	9:10	5:05	Andy Gissin	DEQ
12/11	9:40	4:45	Nina DeConcini	"
12/11	9:55	11:30	Tonia Jackson	Oregon WRC
12/11	10:18		Kathy VanNatta	NWPPA
12/11	10:17	3:00	Didi Lomont	DEQ
12/11	10:30	11:20	KAREN Homoker	OECDD/Ava Roosevelt
12/11	10:30	11:20	Jim Houser	Eco-Biz, Hawthorne Auto Clinic
12/11	10:34	11:20	Manney Jett	Clean Water Services
12.11	10:34		Ross Kenney	PPRC
12:11	10:35	11:20	Barbara Crest	MATA
12/11	1040	1120	Cory-Ann Wind	DEQ
12/11	10:45	11:20	Rich Grant	DEQ
12/11	1045	11:20	Keith Johnson	DEQ
12/11	10:45	12:30	Sue Marshall	~~DEQ~~
12/11	10:45	12:30	Brian Wegener	Tualatin Riverkeepers
12/11	10:50	12:30	Willie Tiffany	Hillsboro

EQC Visitor Sign In/Out Sheet

Date	Time In	Time Out	Name	Representing
12/12	8:00	11:00	Neil Mullane	DEQ
12/12	8:00	11:00	Wendy Wiley	DEQ
12/12	8:00	11:00	Larry McAllister	DEQ
12/12	8:00A		CRAIG HESS	MARION ENTERPRISES / DEQ
12/12	8:10	2:30	Donalda Dodson	EQC
12/12	8:10	8:30	RICK PEDERSEN	EQC
	8:10	2:30	Ken Williams	EQC
		2:30	Bill Blosser	"
		2:30	Lynne Hudson	DOT
12/12		2:45	Andy Ginsburg	DEQ
12/12	9:10	12:00	Ed Dabak	DEQ
			Lynne Mason	" "
			Robert Hall	M.A.T.A
12/12	9:30	12:00	Sarah Armitage	DEQ
	9:40		Brian Block	Hunt Crowser
12/12	9:45	12:0	Jerry Eberside	DEQ

EQC Visitor Sign In/Out Sheet

Date	Time In	Time Out	Name	Representing
12/12	10:00	11:50	[signature]	LRAPA
12/12	10:00	12:00	[signature]	DEQ
12/12	10:35	12:40	Michael Campana	OSU
12/12	11:40		Greg Aldrich	DEQ
12/12	12:40		Jim Rue	DEQ
12/12	1:25	2:20	Kathryn VanNatta	NWPPA

EQC Visitor Sign In/Out Sheet

Date	Time In	Time Out	Name	Representing
12/11/08	10:55	12:40	Allen J Milligan	OSU
12/11/08	11:05	12:25	Becca Bartleson	OPB
12/11	11	12:40	JEAN EDWARDS	SELF
12/11	11	12:40	Steve Dyste	self
"	"	12:35	John Driscoll	TRK / Self
"	12:00	12:30	Bruce Fox	ODOJ
"	12:00	12:30	David Leith	"
"	1:15	2:45	Debra DiPaola	PHC
"	1:15	2:45	Mary Jones	PHC
"	2:05	4:30	Rachel Sakata	DEQ
"	2:05	1630	BRUCE HOPE	DEQ
12/11	2:05	4:30	Jeffrey Stocum	DEQ
"	2:20	4:30	Gregg Lande	"
"	2:35	4:30	David Collum	"
		5:05	Joni ~~Hammond~~	DEQ

Please Sign In

Environmental Quality Commission Meeting
Hillsboro, Oregon
December 11TH & 12th, 2008

Name	Organization	Phone
Nina Jackson	Oregon WRC	(h) 503-357-5547
[illegible]	NWPPA	503-344-9540
Brian Wegener	Tualatin Riverkeepers	503 620 7507
~~Sue Marshall~~	"	
Jean Edwards		
Steve Duyck		
Allen Milligan	OSU	
Sue Marshall	Tualatin Riverkeepers	

TUALATIN RIVERKEEPERS®
12360 SW Main Street • Tigard, Oregon 97223
503-620-7507 • fax: 503-620-7645 • email: info@tualatinriverkeepers.org
www.tualatinriverkeepers.org

December 10, 2008

To: Oregon Environmental Quality Commission

RE: Cyanobacteria, Microcystin, DEQ Response

Chair Blosser and Commissioners,

Welcome to the Tualatin River Watershed.

Last summer, the Tualatin River experienced an unprecedented outbreak of blue-green algae (aka cyanobacteria) that resulted in a health advisory issued by Oregon Department of Human Services (DHS) for two weeks. This event has brought to light numerous issues of concern that I would like to bring to your attention.

Scientists from U.S. Geological Survey (USGS), through an intensive investigation, traced the source of the blue-green algae outbreak to a discharge of water with high phosphorus content by the Wapato Improvement District (WID), through a canal owned by the Tualatin Valley Irrigation District to the Tualatin River. USGS scientists used flow and water quality data from the extensive network of monitoring stations on the Tualatin and its tributaries to pinpoint its source and eliminate other potential sources. WID started pumping on June 5, 2008 and continued into early August. A dike break in December 2007 flooded farmland in WID and was their reason for pumping.

In addition to the health advisory issued by DHS, customers of the Joint Water Commission's (JWC) drinking water plant experienced foul-tasting, foul-smelling water attributed to geosmin, a chemical produced by blue-green algae. Over 200 phone calls complaining of the situation were received from the customers of the water plant. Additional costs incurred by the JWC for treating the water for geosmin associated with the Wapato discharge totaled $286,000 as of October. An accounting of those costs is attached.

Oregon State University plant pathologist Dr. Allen J. Milligan has documented crop damage consistent with microcystin produced by blue-green algae on beets and berries irrigated with water from Wapato Improvement District last summer. Microcystin is a liver toxin and carcinogen and is a risk to human health through breathing of irrigation spray and through eating of affected food crops. Dr. Milligan has provided a summary of the crop damage and human health risks associated with microcystin toxicity which I have attached to my testimony. Tualatin Riverkeepers has asked DEQ to test crop and soils samples from a WID irrigated farm for microcystin, to no avail.

DEQ's Reluctance to Respond

This incident has exposed some systemic failures of DEQ to protect water quality and human health.

DEQ's collection and testing of grab samples occurred more than one month after the illegal discharge occurred. JWC was well aware of this problem long before then. Whether the fault lies with JWC's failure to communicate with DEQ or with DEQ's failure to respond to JWC's communication should be investigated.

When Tualatin Riverkeepers called DEQ to investigate, we were referred first to Oregon Department of Agriculture, then to Oregon Department of Fish and Wildlife. Only after Tualatin Riverkeepers provided video tape of the ongoing discharge and dead and dying fish and frogs to local television stations did DEQ respond.

Months after the incident occurred, DEQ has yet to step up to test crop samples for microcystin toxin. Crops involved have been delivered to the market, putting public health at risk.

In contrast, USGS diligently pursued testing of samples, notification of health authorities, and investigation of the source of the outbreak. We question why DEQ, Oregon's primary environmental protection agency, has remained on the sidelines so long.

DEQ's Failure to Enforce

The discharge of pollutants into the Tualatin River by Wapato Lake Improvement District is a clear violation of ORS 468B.025:

> **468B.025 Prohibited activities.** (1) Except as provided in ORS 468B.050 or 468B.053, no person shall:
>
> (a) Cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means.
>
> (b) Discharge any wastes into the waters of the state if the discharge reduces the quality of such waters below the water quality standards established by rule for such waters by the Environmental Quality Commission.
>
> (2) No person shall violate the conditions of any waste discharge permit issued under ORS 468B.050.
>
> (3) Violation of subsection (1) or (2) of this section is a public nuisance.

Wapato Improvement District does not possess a permit for discharge of pollutants into the Tualatin River. DEQ has yet to take any enforcement action.

DEQ's report on grab samples taken from the Tualatin River and the Wapato canal fails to include samples taken by government scientists from other government agencies (USGS, JWC and Clean Water Services) which we would expect to be included in a thorough investigation of an incident that has caused documented economic damage, killed fish and wildlife, and put human life and health at significant risk.

Blue-green Algae as an Emerging Threat

Oregon Public Broadcasting radio recently reported that toxin-producing blue-green algae outbreaks across Oregon last summer resulted in more health advisories than ever before (transcript attached). Dr. Milligan's report alerts us to the tremendous threat of cyanotoxins to human health and Oregon's agricultural industry. DEQ's attention to these threats has been inadequate. Tualatin Riverkeepers urges the Environmental Quality Commission to direct DEQ to:

1) test crops and soil for microcystin toxin that threatens human health and Oregon's agricultural industry;

2) step up monitoring of water quality to prevent future blue-green algae outbreaks;

3) aggressively enforce ORS 468B.025 to protect Oregon's water and people from discharges that cause outbreaks of toxin-producing blue-green algae

Thank you for your consideration of these problems.

Sincerely,

Brian Wegener
Watershed Watch Coordinator
Tualatin Riverkeepers

Attachments

TheTimes TIGARD | TUALATIN | SHERWOOD

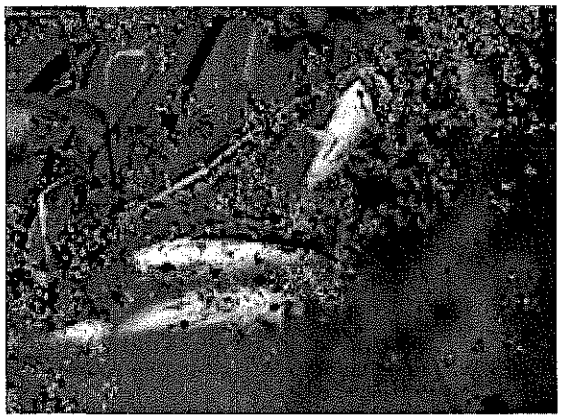
Lake water suspected in blue-green algae bloom

Scientists speculate on source of mid-July bloom that led to shut-down of the Tualatin River

BY DARRYL SWAN

The Times, Aug 7, 2008, Updated Aug 8, 2008

TIGARD — Some scientists are speculating that water pumped out of Wapato Lake in western Washington County contributed to the toxic blue-green algae bloom on the Tualatin River last month that prompted state health officials to shut down a lower stretch of the river for a two-week period.



JONATHAN HOUSE / THE TIMES
Dead fish float in Wapato Lake discharge water that flows directly to the upper Tualatin River.

On Tuesday, dead blue gills, carp and frogs were readily visible in the discharged water, which flows directly to the Tualatin River. The discharge is the result of farmers in the Wapato Improvement District who have been pumping the lake dry over the last two months in order to repair a dike damaged during the strong volley of storms in December.

Located outside of Forest Grove, Wapato Lake goes through seasonal cycles of winter flooding and being pumped dry in the spring so that farmers who are part of the improvement district can plant crops in the lakebed, a practice occurring since the 1930s. Last winter's and the ensuing floods caused a breach in a dike surrounding the lake, causing more water than usual to fill it and preventing a lake crop this year.

In prior years the pumping occurred in the spring. It's happening much later this year to facilitate the repairs, raising alarm among environmentalists who say the late-season discharge is damaging the Tualatin River's water quality.

Avis Newell, the Tualatin basin coordinator for the Oregon Department of Environmental Quality, said Wednesday that she was told pumping to level the lakebed has ended, and that any pumping now is the result of normal drainage controls. Samples taken on Aug. 1 are due back in two weeks, Newell said. A meeting between DEQ and the farmers who run the district is scheduled for later this week.

"We will be talking with them about some kind of management plan," Newell said. Whether DEQ would require the improvement district to get a permit to operate the pumping system, including monitoring for water quality discharges, is unclear.

Newell said it is unlikely any retroactive enforcement action will be brought against the improvement district, and said it is difficult to name any one event as the root cause of the blue-green algal bloom, which led the Oregon Department of Human Services to close the river to recreational use on July 12 following the discovery of floating algae mats. Newell added that at this point there is no data suggesting that the Tualatin River's water quality has been compromised.

"I really don't have the hard data to say there's been a significant degradation," she said.

Stewart Rounds, a hydrologist with the United States Geological Survey, said an analysis of the lake water he sampled on July 19 showed levels of phosphorus many times higher than the benchmark for phosphorus in the Tualatin River, levels that may have played a part in the algal bloom.

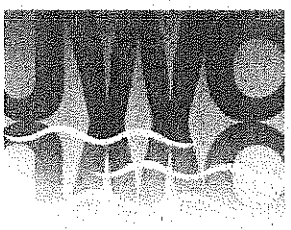
Phosphorus is a key nutrient for algal growth. It is also one of the parameters local water quality agencies, including Clean Water Services and local municipalities, have attempted to control through

USGS river monitoring data points to higher counts of blue-green algae and zooplankton discharging from Wapato Lake, Rounds said. Zooplankton is a class of small aquatic invertebrates that feed on algae but for the most part shun blue-green varieties. The water sample has also shown higher concentrations of organic material and oxygen-depleted water.

Rounds said, taken together, the factors all lead him to believe there is a link between the lake discharge and the algal bloom.

"All I can say is it's consistent with our hypothesis," Rounds said. "It makes sense that discharges from Wapato may have had a downstream effect."

Joint Water Commission



JWC Costs incurred relating to 2008 Taste and Odor Event

Background Information

Chemical Use

The Joint Water Commission plant is a conventional filtration plant. During typical operations the plant primarily utilizes the following four chemicals in the treatment process:

- Alum ( ) – added to raw water in the sedimentation basins to promote clumping of particles in the settling process.
- Polymer – added after the sedimentation basins to improve filter performance
- Caustic soda – to raise the pH of the finished water
- Chlorine – for disinfection

Powdered activated carbon (PAC) was added to the treatment process this year in response to the presence of geosmin in the raw water. PAC is effective at absorbing the tastes and odors to levels below those at which they are noticeable. PAC application began on June 11 and continued, with a two-week break, until September 15.

For purposes of this calculation, chemical costs were normalized to a cost per million gallons of water produced, and compared to the cost per million gallons of water produced last summer. This normalizing accounted for the different volumes of chemicals that are required to treat varying volumes of water, thus allowing for the calculation of the extra cost of treating water this year as compared to last. The cost of PAC accounts for most of the increased 2008 treatment costs.

PAC Equipment

The JWC plant was originally built with PAC-feed equipment adequate for the 10 million gallons per day (mgd) capacity of the original plant. The plant production now averages over 40 mgd in the summer, and peaked as high as 67 mgd this summer. The original PAC feed equipment was undersized to address the levels of geosmin in the raw water at these production levels. JWC leased portable equipment for the summer that increased the PAC feed capacity from 0.5 mg/L at current production levels to approximately 20 mg/L. Actual dosage this summer never exceeded 10 mg/L. Installation of the equipment required two concrete slabs, and related electrical and plumbing work. (JWC has decided to purchase one of the feeders, to be prepared for a future geosmin event.)

Sampling Analysis

To identify and monitor potential sources of geosmin, JWC conducted sampling at eight points in the basin upstream of the intake, as well as at one point in the Hillsboro distribution system. Lab costs were high, as only a limited number of labs are capable of analyzing these samples, and rushed results were needed to assist in managing the treatment process. Samples were also tested for total organic carbon levels.

Program Supplies, Safety Supplies, Small Tools

These lines account for supplies and tools incidental to the treatment or sampling activities.

Assistance to Wapato Improvement District

Wapato's repair work on the dike breach was inhibited by not having a ready source of fill dirt. JWC has a large stockpile of soil left over from a recent construction project. To accelerate Wapato's repair work, JWC hired a contractor to load and deliver over 1,000 cu.yds. of fill from its stockpile to the dike breach for use by the Improvement District.

JWC Costs incurred between June 1 and Sept 15 relating to Taste and Odor Event

Description		Expenses
Additional chemical use at JWC WTP (Alum, Caustic Soda, Chlorine, Polymer and PAC)		$197,967.90
PAC Equipment		
	Porta PAC Equipment Rental	$29,916.00
	Concrete Slab Pouring	$9,181.25
	Equipment Set Up	$2,238.00
	Equipment Set Up- Electric	$1,227.34
	Plumbing	$1,208.67
	PAC Feeder Electrical Repair	$6,000.00
	Trailer rental to store PAC	$459.02
SUBTOTAL		$50,230.28
Sampling Analysis, Shipping and Supply costs		$23,866.11
Program Supplies		$609.90
Safety Supplies		$594.01
Small Tools		$189.65
Assistance to Wapato Improvement District (Soil Movement)		$11,656.00
TOTAL MATERIALS AND SERVICES		**$285,113.85**

* Other costs not included: additional electricity costs at JWC WTP, lost capacity at JWC WTP sludge ponds, staff time, and costs incurred to individual partner agencies such as customer notification or distribution flushing.

CYANOBACTERIAL TOXINS IMPACT CROPS AND ACCUMULATE TO LEVELS CONSIDERED UNSAFE FOR CONSUMPTION.

Prepared by Allen J Milligan · Assistant Professor, Senior Research
Department of Botany and Plant Pathology · Oregon State University
2082 Cordley Hall · Corvallis, OR 97331-2902
Email: Allen.Milligan@science.oregonstate.edu
Office: (541) 737-5276 · Mobile: (541) 908-0569 · Fax: (541) 737-3573

Oregon surface waters are experiencing increased occurrence of potentially toxic cyanobacterial blooms (Fig. 1). It is necessary to use the modifier "potentially" because there is no toxin monitoring in the state of Oregon. Advisories are currently based on cell counts of potentially harmful cyanobacteria. This summary is intended to briefly review the recent research on the effects of a cyanobacterial (a.k.a. Blue-green algae) toxin, microcystin-LR on crop plants and highlight two human exposure routes important to Oregon consumers and growers. The toxin microcysyin-LR is one of many toxins (there are 70 analogs of microcystin alone) produced by cyanobacteria. Much of the research focuses on this compound because it is widespread, produced by many species of cyanobacteria and is hydrophobic. This may allow microcystin-LR to diffuse across cell membranes but the exact mechanism of uptake is not known.

An extensive literature review [1] indicates that plants are generally not killed by realistic levels of cyanotoxins but, rather are growth inhibited, which lowers crop yields and unfortunately requires that we consider the possibility of human exposure via the consumption exposed plants.

Microcystin-LR is a potent inhibitor of phosphatases.

Microcystin is a potent inhibitor of protein phosphatases 1 and 2A in both animals and plants [2]. Protein phosphatases are key regulatory enzymes in catalyzing dephosphorylation of serine/threonine residues in phosphoproteins. In humans, microcystins mainly impact the cytoskeletal phosphatases in liver tissue. Disruption of cytoskelatal phosphorylation leads to swelling of cells, hemorrhaging of the liver and possibly death [3]. In plants, protein phosphatases regulate important cellular processes such as ion channel activity, carbon and nitrogen metabolism, tissue development and photosynthesis. It has been shown that plant seedlings can take up microcystin [4, 5], causing inhibitory effects on development, root growth and photosynthesis [6-9]. Necrotic lesions on leaves are also observed and likely due to microcystin induced oxidative stress [6].

Microcystin-LR causes oxidative stress

Plant exposure to microcystin results in the generation of reactive oxygen species such as hydrogen peroxide. If the antioxidant capacity of the plant is overwhelmed then radical oxygen can lead to cell death through necrosis or programmed cell death pathways. The accumulation of hydrogen peroxide can lead to peroxidation of lipids, which are found to accumulate in microcystin exposed plants [5]. Accumulation of peroxide species induces a general xenobiotic decontamination pathway present in both plants and animals [10]. This pathway involves the binding of glutathione to the toxin, resulting in a less- or even non-toxic conjugate that is transported out of the cytoplasm. However, accumulation of toxin in plant tissues demonstrates that this pathway can be overwhelmed.

Plants accumulate microcystin-LR

To date, 15 common crops have been examined for accumulation of microcystin-LR. These studies have found that all plants examined were able to grow in the presence of environmentally realistic levels of microcystin-LR and accumulate toxin. Peuthert et al. placed 6 day old plants in medium containing either purified microcystin or cell free crude extracts of cyanobacterial laden lake water [5]. The 11 crop plants examined accumulated both toxin and peroxidated lipids in shoots and roots to high enough levels that consumption of even a small amount of plant tissue would exceed the WHO consumption recommendation (Table 1). In another study, Crush et al. examined four mature (45-72 days old) crops grown in sand culture [4]. The plants were irrigated either at the base of the plant or over the shoots with water containing

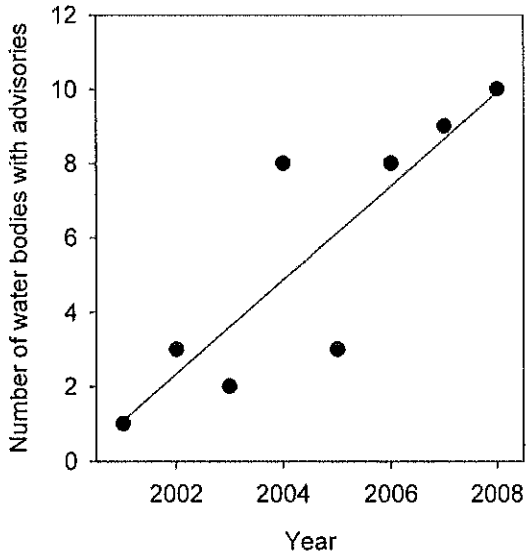


Figure 1. The number of advisories issued by the Oregon Department of Health Services since 2001, the year the program began. This trend is likely due to both the increase in cyanobacterial bloom frequency as well as increased awareness in Oregon. Water bodies with multiple advisories within a season were counted once. Current as of Oct. 24, 2008.

cyanobacterial cells. Water applied to the shoots ran off of the rape and ryegrass, with very little wetting of the foliage, and absorption of microcystin by the shoots was not observed. Both lettuce and clover leaves were visibly wetted and retained microcystin. This suggests that leaf cuticle properties are very important in controlling absorption of microcystin applied to plant shoots. This study also found no evidence of translocation of microcystin from roots to shoots [4], although others have observed translocation [5].

Human health is at risk

Crop plants exposed to environmentally realistic concentrations accumulate microcystin-LR to levels where even a small amount of plant material (0.7 - 9 ounces) would exceed the WHO recommended consumption limit (Table 1). This consumption limit is based on acute toxicity in pigs [11] and does not consider the potential carcinogenicity of microcystin [12]. In addition, overhead irrigation of crops with water containing cyanotoxins posses an inhalation risk to field workers. Exposure symptoms include facial rashes, asthmatic signs and dry sporadic cough with vomiting on the days of, and after, exposure [13].

Table 1. Accumulation of microcystin in 12 crops and the calculated consumption limit assuming a 60 kg (132 lbs) person and using the WHO daily consumption limit of 40ng/kg. I also assume that the fruits will have the same concentration as the shoot. Fruits have not been analyzed by any study to date. All shoot load data from [5], except lettuce [4].

Crop	Shoot load (ng toxin/g w.wt)	Consumption Limit (g)	Consumption Limit (oz.)
Green Pea	27	88.9	3.1
Sugar Pea	28	85.7	3.0
Chick Pea	12	200.0	7.1
Green Mung bean	30	80.0	2.8
Red Mung Bean	30	80.0	2.8
French Bean	40	60.0	2.1
Soya Bean	10	240.0	8.5
Alfalfa	125	19.2	0.7
Lentil	12	200.0	7.1
Maize	37	64.9	2.3
Wheat	125	19.2	0.7
Lettuce	79	30.4	1.1

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WAPATO LAKE REGION WATER QUALITY STUDY REPORT

August, 2008

Department of Environmental Quality

August 1, 2008 Sampling Results

Introduction:

On Thursday, July 31, 2008, the Department of Environmental Quality (DEQ) received a call reporting an observation of dead and dying fish downstream of the Wapato Lake pump house near Gaston, Oregon. DEQ staff notified Oregon Department of Fish and Wildlife of a potential fish kill, and mobilized to visit the site the next day.

Wapato Lake is located in the southwest quadrant of the Tualatin River basin, near Gaston Oregon. A map is provided in Figure 1. Wapato Lake was historically a seasonally flooded shallow lake and wetland area. In the 1930s, the Wapato Lake Improvement District was formed. The District constructed a dike around the lake to limit winter flooding from the nearby Tualatin River. Each spring, water is pumped out of the lake by the end of March so soils will dry in time for spring planting. The drained lakebed was originally used to grow onions; now other vegetables are grown.

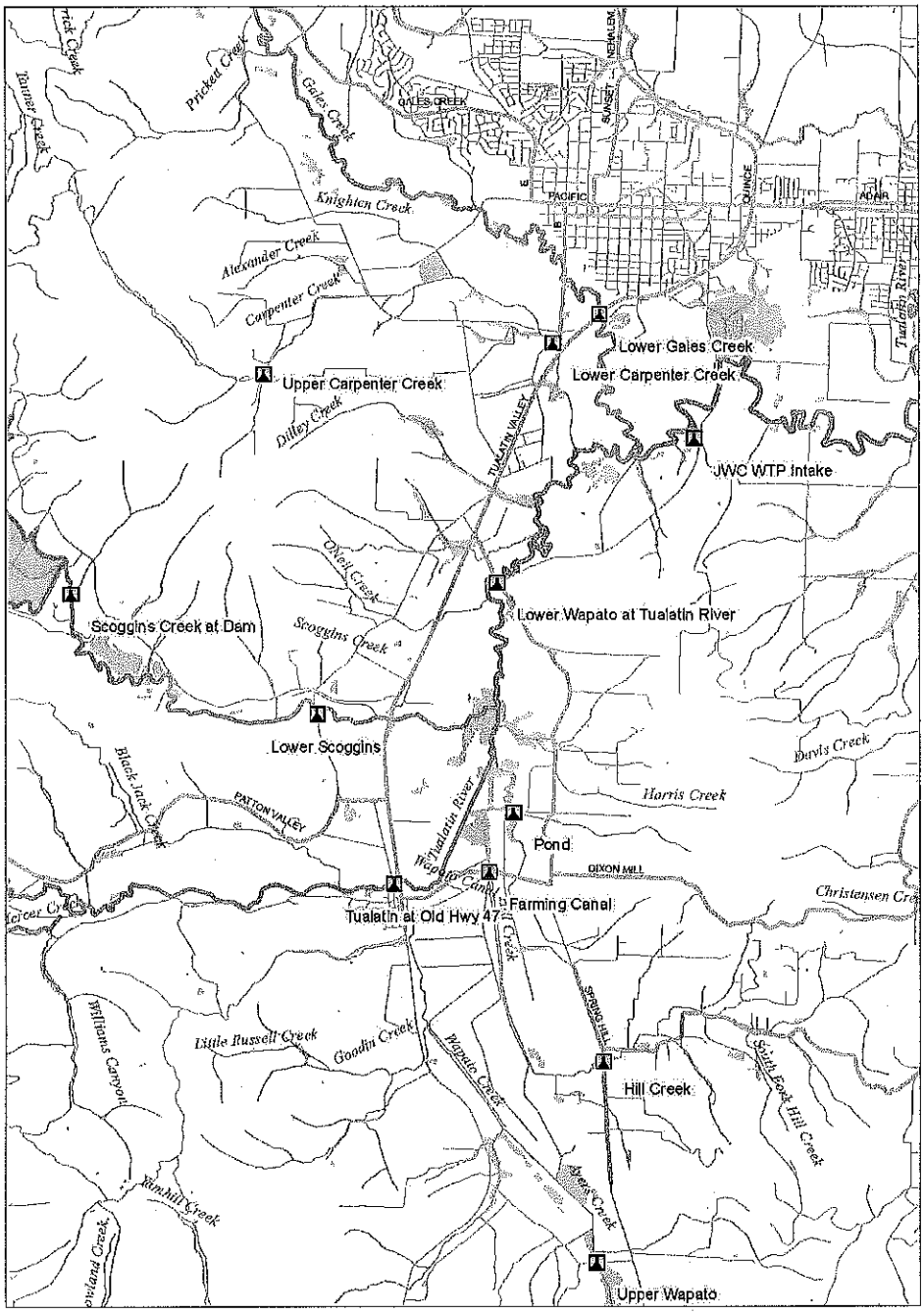
During December 2007, a severe storm delivered heavy rain to the region. Localized flooding caused the dike to breach, and water from the Tualatin River flooded the Wapato Lake bed with as much as 8 feet of water. The wet spring in 2008 kept water levels in the nearby Tualatin River high, keeping the District from pumping water out of the Wapato Lakebed until July. By this time, water had inundated nutrient rich soils for some time, and the shallow lake water warmed significantly. The warm, nutrient-rich water created conditions for rich algal growth, which changed the water quality character of pumped water compared to what is normally released in February and March.

Other water quality problems have been observed in the Tualatin Basin during the summer of 2008. A bloom of bluegreen algae was observed in the lower Tualatin in mid-July. Bluegreen algae have the potential to release dangerous toxic chemicals. No toxic compounds were documented, but in a preventive action, the state's Department of Human Service's Environmental Toxicology Program issued an advisory to warn against contact with or consumption of the water.

The Joint Water Commission provides treated drinking water to much of Washington County. Their intake is located downstream of the confluence of Gales Creek with the Tualatin River, and several miles downstream of the confluence with Wapato Creek. During the summer of 2008, the Joint Water Commission experienced greater difficulty and expense in treating Tualatin River water. Although it cost more to treat, drinking water safety was not compromised.

The samples taken by DEQ on August 1, 2008 were taken to investigate whether water quality contributed to the observed fish kill. The sampling design did not address whether Wapato water contributed to the July bluegreen algae bloom, or to the drinking water treatment issues. The results reported here do not reflect on either of those issues.

Figure 1. Map of the western Tualatin Basin, showing the locations of three DEQ sampling sites; Tualatin at Old Hwy 47, Farming Canal, and Lower Wapato at Tualatin River. This map was kindly provided by the Joint Water Commission, and shows additional sites not sampled by DEQ.



Sampling Plan:

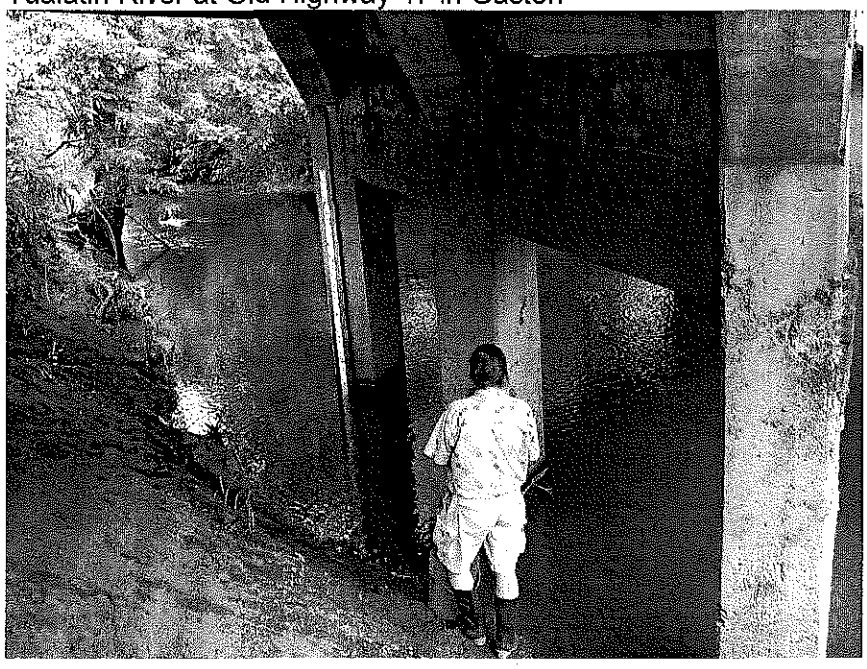
On Friday, August 1, 2008, DEQ staff sampled the Tualatin River upstream and downstream of the Wapato Lake outlet, and Wapato Creek just downstream from the Wapato Lake pump station. A map provided by the Joint Water Commission (Figure 1) shows both the location of these sites, and the hydrology of the area. The three sites that DEQ sampled are labeled on the map as the Tualatin at Old Hwy 47 (upstream site), the Farming Canal, and Lower Wapato at Tualatin River (downstream site). A photo of each site is shown in Figure 2.

Each of the three sites were accessed via public right-of-way paths alongside bridges located on public roads. The site near Gaston, labeled 'Tualatin at Old Hwy 47' on the map is located under the bridge in Gaston where the Gaston River gauge is located. The Farming Canal Site is located under the bridge that crosses Wapato Creek on Main Street in Gaston. This site includes water from the Wapato pump house shown in Figure 1, as well as from the Tualatin Valley Irrigation Canal that parallels the Wapato Lake dike to both the east and west. The third site, labeled Wapato at Tualatin River, is located in the Tualatin River downstream of the Wapato Creek tributary. This location is just downstream of the confluence of the Tualatin River and Scoggins Creek, another significant Tualatin tributary. This downstream site is at the same location as the Dilley water gage run by the USGS to measure flow in the upper Tualatin River.

Grab samples were taken from the surface of the river at each site. Conductivity, dissolved oxygen, percent saturation of dissolved oxygen, pH, temperature, and turbidity were measured in the field. Water samples were taken back to the laboratory for the nutrients ammonia, nitrate, orthophosphate, and total phosphorus. Samples were also taken to screen for organic pesticides, and to test for pesticides if the screen showed that organic pollutants were present.

Figure 2. Photos of the three sampling sites.

Tualatin River at Old Highway 47 in Gaston



The Wapato Lake Pump House and Farming Canal.

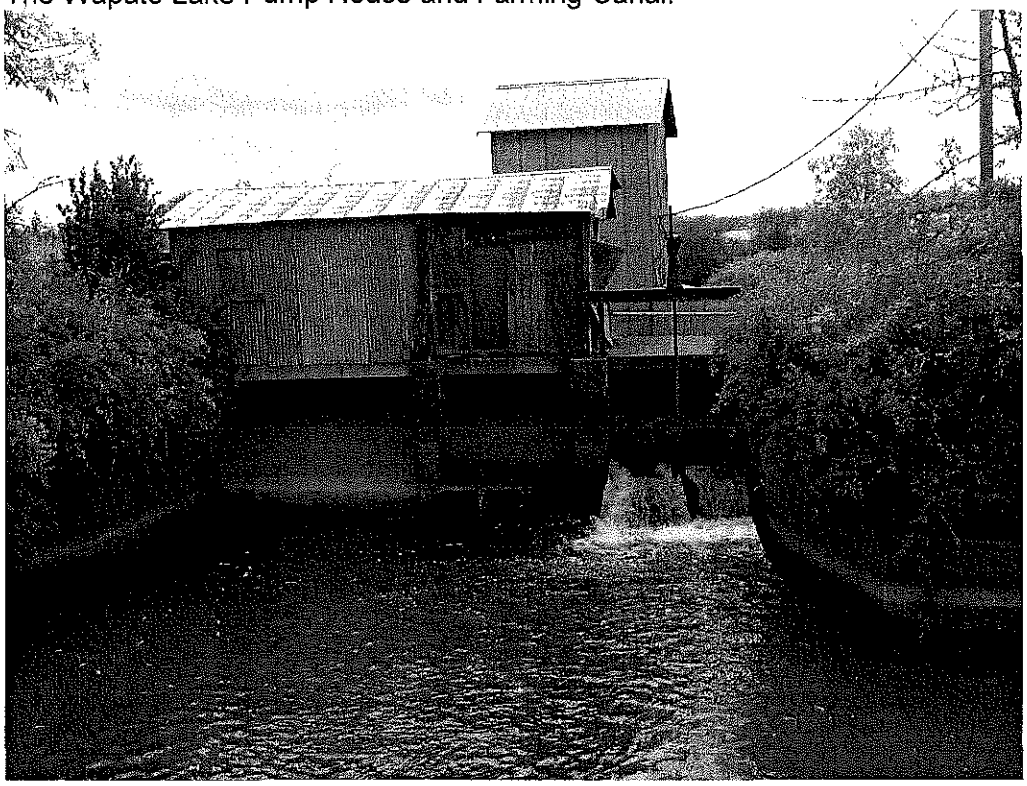
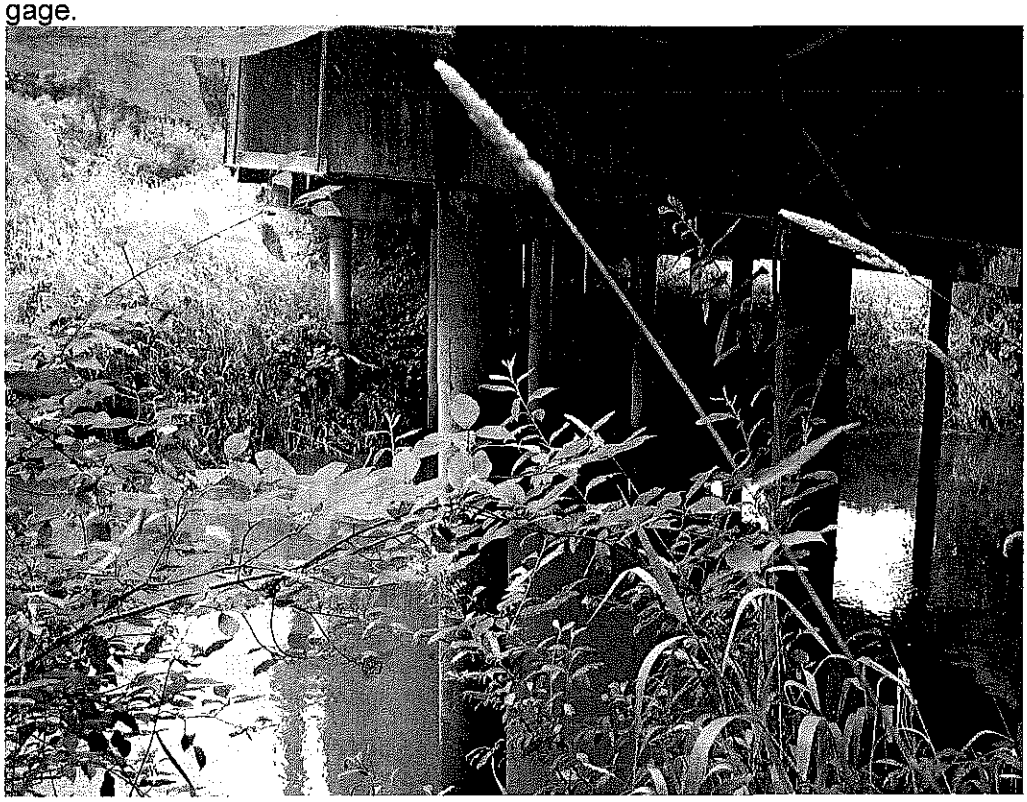


Figure 2 (Continued). Lower Wapato at Tualatin River, also the site of the Dilley flow gage.



Results:

The sampling of Wapato Creek was prompted by reports of dead fish floating in the creek. Therefore, DEQ was looking at water quality conditions that might kill fish. Table 1 below shows results for those parameters which might contribute to poor water quality and result in fish death. Table 1 includes the applicable water quality standard or other benchmark to assist in understanding the result.

Table 1. Results of the water quality sampling at three sites in the upper Tualatin on August 1, 2008.

Parameter	LOQ[1]	Results From The Three Sites			Water Quality Target	Comment[2]
		Upstream (Old Highway 47, Gaston)	Farming Canal	Downstream (Wapato Creek Confluence, or Dilley Gage)		
Dissolved Oxygen, mg/L	1	8.8	7.1	11.2	6.5	OAR 340-41-0016-1(c)
Oxygen % Saturation	1	87%	73%	100%	N/A	
pH	0-14	7.5	7.2	7.3	6.5-8.5	OAR-340-41-0021 (1)(b)
Temperature, ° C	N/A	15.5	17.3	10.3	18° C[3]	OAR-340-41-0028(4)(c)
Pesticide screens		Negative, no further tests run	Negative, no further tests run	Negative, no further tests run	Narrative disallowing harmful conditions	OAR 340-41-007-12
Total Phosphorus mg P/ L	0.01	0.01	0.09	0.09	0.04	median background value for the Tualatin watershed upstream of Dairy Creek
Ammonia mg N/L	0.02	<0.02	0.15	<0.02	N/A	
Nitrate mg N/L	0.0050	0.0803	0.0874	<0.0050	N/A	
Conductance	1	77	82	71	N/A	

[1] LOQ stands for Limit of Quantitation, and provides the lower analytical limit for the method.
[2] A citation is provided for the water quality target. If the target is a water quality standard, the citation from the Oregon Administrative Rules is provided. Only exceedances of the Oregon Administrative Rules might be considered water quality violations.
[3] The temperature standard in the Oregon Administrative Rules is described as an average of the daily maximum temperature over 7 consecutive days. The one-time grab samples here are not directly comparable to the water quality standard; the standard is provided for reference only.

Discussion:

Samples were collected from the Tualatin River upstream and downstream of Wapato Creek, and in the Wapato Creek Farming Canal in response to a report of dead fish downstream of the Wapato Lake Discharge. Water quality conditions that might kill fish include low dissolved oxygen in the water column, high temperature, pH that is either too high or too low, or poisons such as pesticides found in the water. These are the conditions that DEQ investigated during the August 1, 2008 sampling trip.

Oregon water quality standards are provided for comparison to the results reported in Table 1. Oregon's water quality standards were adopted to protect aquatic life. By definition, if a waterbody meets the water quality standard, the waterbody is of sufficient quality to support the beneficial uses designated for that waterbody. In short, if there are not adverse water quality conditions, then any observed die off of fish or other aquatic life would not be easily attributed to water quality conditions.

As demonstrated in Table 1, none of the samples in the Upper Tualatin watershed collected by DEQ on August 1, 2008 violated water quality standards. No adverse conditions were observed that would have killed fish in the Farming Canal.

For dissolved oxygen, higher numbers are better than low numbers, so the water quality standard is met when instream values are greater than 6.5. The lowest dissolved oxygen value was observed in the Farming Canal. Here the observed value of 7.1 easily met the standard. The amount of oxygen that water can hold depends on the several factors including water temperature, and air pressure at the site. The per cent of saturation is a measure of how much oxygen is dissolved in water compared to how much the water could hold under those conditions. The only water quality standard for per cent saturation of dissolved oxygen applies during spawning periods, and thus do not apply here. The per cent saturation is included in Table 1 to ease the comparison of dissolved oxygen observed at the three sites.

The acid-base balance in water can also directly affect fish. This measurement is referred to as the pH. A pH of 7 is neutral, and for water quality, pH values between 6.5 and 8.5 are considered safe for aquatic life. The values observed here were very close to neutral at 7.2, and would not have killed fish.

High water temperature can affect fish in two ways. As cold blooded animals, fish have no cooling mechanisms, so high water temperatures can be lethal. Also, as mentioned above, oxygen is less soluble in warm water, so high temperature may lead to lower dissolved oxygen, in turn asphyxiating fish. Dissolved oxygen values were sufficient to support aquatic life, so temperature was not a contributing factor for oxygen levels. Stream temperatures tend to fluctuate with air temperatures and other climatic conditions. The length of time that fish are exposed to high temperatures also influences how much damage may be caused by high temperatures. For this reason, Oregon's temperature standard allows for day to day variation by using the average of the daily maximum temperature over a seven day period. Because the temperatures measured in the field are not known to be the daily maximum temperatures, and temperature was only collected one day, the values collected at the three upper Tualatin basin sites can not be directly compared to the water quality standard. However, each of the grab samples was lower than the applicable standard. Acute lethal affects of temperature

occur at temperatures of 25° C and greater. The values we observed were much lower than that, and would not contribute to killing fish on that day.

Numerous pesticides and organic compounds may occur in the environment, and a spill of some kind can result in toxic conditions for aquatic life. Easy and inexpensive screening tests were done to determine whether organic pollutants were present in these water samples. These would not identify the compounds or the concentrations, but are sensitive tests and would indicate when pollutants are present so that more detailed analyses can be performed. For this sampling event, there were no organic compounds detected at any of the three sites, and no additional analyses were ordered. Pesticides are thus not indicated implicated in the fish kill.

Nutrients are unlikely to kill fish. However, the Tualatin River basin is naturally rich in nutrients, and farming activities in this upper region of the watershed may add nutrients to the system. While plant nutrients or fertilizers are not directly toxic to fish, they can stimulate the growth of algae in water. As algal cells die off and decompose, they use oxygen in the water column, which in turn can lead to low dissolved oxygen conditions that harm fish. For these samples, phosphorus concentrations are somewhat higher at the Farming Canal and downstream Tualatin site than expected for a summer background condition for phosphorus in the upper watershed. In the Tualatin 2001 TMDL (Total Maximum Daily Load) document, the median phosphorus concentration for the upper watershed was 0.04 mg of total phosphorus per liter. The Farming Canal may be enriched with phosphorus after water sat on the lake bed for several months. However the downstream on the Tualatin River is also high in phosphorus. This site is on the Tualatin River downstream of both Wapato Creek and Scoggins Creek. Thus the influence of the Wapato Lake discharge is somewhat diluted. This dilution is best shown by the conductance values at each site. Conductance is a measure of how much electric current the water will conduct. Distilled water will not conduct electricity, but when salts are dissolved in water, the ability of water to conduct electricity is increased. Conductance is a conservative parameter, and can be used to show that the water sampled at the Farming Canal was significantly diluted by other water when it mixes with the downstream Tualatin. Because the same concentration of total phosphorus was observed at both the Farming Canal and downstream sites, but the conductivity at the downstream Tualatin site clearly shows that the Farming Canal water is somewhat diluted after mixing, this suggests the Farming Canal is not the only source of total phosphorus in the upper Tualatin.

Conclusion:

Results from this sampling event have not identified what caused fish to die in the Farming Canal. A video showing fish struggling and dying in the canal water was filmed the day before our water quality samples were taken. A fish biologist from the Oregon Department of Fish and Wildlife (ODFW) visited the site on Thursday, July 31, the day before the water samples were taken. At that time, dead fish were observed in the canal. These were identified as carp, catfish, bluegill, and perch. No native or endangered salmonids were observed. ODFW observed that most of the fish had been dead for sometime, and hypothesized that fish may have been killed in the lake, and then pumped into the Farming Canal. Water quality conditions of warm temperature and low dissolved oxygen may occur frequently in the shallow lake area, and may have caused the fish kill. Some fish may have been killed by injury through the pump. DEQ

did not measure water quality in the Lake itself, only in the Farming Canal downstream of the pump house.

At the time of the ODFW site visit, the Wapato Lake Improvement District was using two pumps, a large capacity and smaller capacity pump to move water out of the Lake area so the dike could be repaired. ODFW requested that the Improvement District shut down the large pump. At the time of the DEQ site visit and water sampling event the next day, only the smaller pump was in service. Wapato Lake water then may have been sufficiently diluted in the Farming Canal so that toxic conditions were no longer present. DEQ also requested that the Wapato Lake Improvement District use only the small pump to complete pumping in order to repair the dike.

August 1 was cool and cloudy, and only the smaller pump from Wapato Lake was pumping water, so the Farming Canal likely contained less Wapato Lake water than on previous days. Dissolved oxygen and temperature conditions in the Farming Canal were not poor enough to kill fish. No evidence of toxic pollutants were present. The pesticide screen test would have identified even dilute concentrations that should still have been present despite dilution from the Farming Canal. Given the lack of clear evidence, we believe that high temperatures, low dissolved oxygen or a combination of the two –in the lake itself may have lead to the observed fish kill. This conclusion is based largely on the lack of direct evidence, and the fact both temperature and dissolved oxygen conditions can change rapidly.

Brian Wegener

From: Brian Wegener [bwegener8@comcast.net]

Sent: Monday, September 08, 2008 9:09 PM

To: newell.avis@deq.state.or.us

Cc: brian@tualatinriverkeepers.org; ehz@nedc.org; msr@nedc.org; 'Bruce DeBolt'; 'Sheila Ault'; 'Paul Whitney'; polwonks@comcast.net; 'Ron Garst'; kroger@johnkroger.com; kroger@lclark.edu; 'Sue Marshall'; galizio@comcast.net; Larry Galizio

Subject: RE: Wapato Water Quality Report

Avis,

The obvious violations that you missed in your report are prohibited conditions from the Tualatin Basin Agricultural Water Quality Rules OAR **603-095-0140**. Irrigation water may not be discharged to the river between May 1 and October 31. Since Tualatin Valley Irrigation District is using this system of canals to distribute irrigation water to farms in the Gaston-Gilley-Wapato Lake area, this qualifies as irrigation water and should not be discharged to the river without written approval from Oregon Department of Agriculture of a monitoring program that provides reasonable assurance that the quality of the irrigation water discharge meets all applicable water quality standards. High phosphorus levels that DEQ measured in the Wapato discharge did not meet water quality standards and there is no approved monitoring program that assures that these discharges do not violate applicable water quality standards. Further, data collected by U.S.G.S. showed even higher levels of phosphorus, indicating a far more egregious violation.

Your monitoring results at Dilley are diluted by the discharge from Hagg Lake/Scoggins Creek. For a more accurate measure of the impact of the discharge from Wapato Lake, sampling should have been performed upstream of the confluence of Scoggins Creek at the confluence of Wapato Creek. Photo attached.

Tualatin Riverkeepers remain deeply concerned that Oregon Department of Agriculture is willfully neglecting their responsibilities in protecting the Tualatin River and its downstream users from violations of prohibited conditions in OAR 603-095-0140. We thank DEQ for stepping up when ODA failed. If DEQ is going to assume ODA's enforcement and monitoring responsibilities, then DEQ needs to be familiar with the agricultural water quality rules and prohibited conditions in OAR 603-095.

Brian Wegener
Watershed Watch Coordinator
Tualatin Riverkeepers

From: brian@tualatinriverkeepers.org [mailto:brian@tualatinriverkeepers.org]

Sent: Monday, September 08, 2008 8:08 PM
To: bwegener8@comcast.net
Subject: FW: Wapato Water Quality Report

Brian--

At long last the data from our sampling event is available for release, and I have included a copy here for you. I will likely share it with media folks who contacted us earlier at the end of this week.

I want to thank the Tualatin Riverkeepers for reporting the fish kill. As you can see in the report, the water quality in the canal on Friday, August 1, had no obvious lethal character to it. While we did see some dead fish during the sampling event, unlike the videos you filmed the previous day, we did not see fish struggling, swimming in circles or dying. One main reason may be that on July 31, ODFW asked the Wapato Improvement District to restrict the use of their activity to the smaller pump. Based on the water quality we sampled on August 1, combined with your video from the previous day, it appears that using the smaller pump may have lead to an improvement of water quality. We have asked the Wapato District to restrict their pumping to the smaller pump until the management plan is developed.

The water quality results do not show water quality violations, or shed light on what caused the fish kill. Even though the water quality in the canal was acceptable on the day we sampled it, we are moving forward with a requirement for the Wapato Improvement District to develop a management plan that will describe when and how they can de-water their lake, and what monitoring and communication needs to occur surrounding that activity. We will be working on an outline for that plan next, and will solicit input from other stakeholders in the basin to make sure that the management plan addresses all the potential water quality impacts from the de-watering activity.

Please let me know if you have any questions about the data report, and expect to hear from us for input on the management plan by early October.

Thanks again for keeping us aware of what is happening in the basin.

Avis Newell
DEQ
Tualatin Basin Coordinator
(503)229-6018

--
Brian Wegener
Tualatin Riverkeepers
503-620-7507

Brian Wegener

From: Stewart Rounds [sarounds@usgs.gov]
Sent: Tuesday, September 09, 2008 12:48 PM
To: Brian Wegener
Cc: Stewart A Rounds
Subject: Re: FW: Wapato Water Quality Report

Brian Wegener wrote:
> Is your sampling data available to compare with DEQ's?

Hi, Brian.

Here are the results from the sample I collected on July 19th. Chemical analyses were performed by the CWS lab, as indicated.

Location: Wapato Lake pump drainage at Gaston Road
Date: 7/19/2008
Time: 15:05

Field Parameters (USGS):
Water temperature: 19.59 deg C
Dissolved oxygen: 3.00 mg/L
pH: 6.61
Specific conductance: 130 microSiemens/centimeter

Chemical Analyses (CWS):
Biochemical Oxygen Demand, 5-day: 25.4 mg/L (Q)
Carbonaceous BOD5: 18.8 mg/L (Q)
Chemical Oxygen Demand: 146 mg/L
Chlorophyll-a (corrected): 328 ug/L
Pheophyton 141 ug/L
Chlorophyll-a (uncorrected): 411 ug/L
Chloride, soluble: 7.59 mg/L
Fluoride, soluble: 0.38 mg/L
Ammonia nitrogen, soluble: 0.14 mg/L (Q)
Nitrite nitrogen, soluble: <0.01 mg/L (E)
Nitrate+Nitrite nitrogen, soluble: <0.02 mg/L (E)
Nitrate nitrogen, soluble: ~0.01 mg/L (E)
Sulfate, soluble: 0.29 mg/L
Total Kjeldahl Nitrogen: 6.56 mg/L (Q)
Total phosphorus: 2.54 mg/L (Q)
Total suspended solids: 74 mg/L
Soluble reactive phosphorus: 0.47 mg/L (Q)

where "Q" means questionable result and "E" means estimate. Basically, the E code means that there's more than the normal amount of error associated with that result, and even more with a value that has a Q code. Some of the Q codes were added because the sample didn't get to the lab until a couple of days after sampling, despite being on ice until then.

So, this sample had much lower DO, slightly higher temperature, and much higher phosphorus, compared to the DEQ results.

The big difference, apparently, was that both pumps were on when I sampled, and only the smaller pump was

on when DEQ sampled. I also observed many dead fish floating past while sampling. DEQ sampled when the water from the Wapato pump discharge was relatively clear, whereas I sampled when the Wapato pump discharge was very turbid.

At the very least, the differences between these two sets of results is indicative that the conditions could have been quite variable.

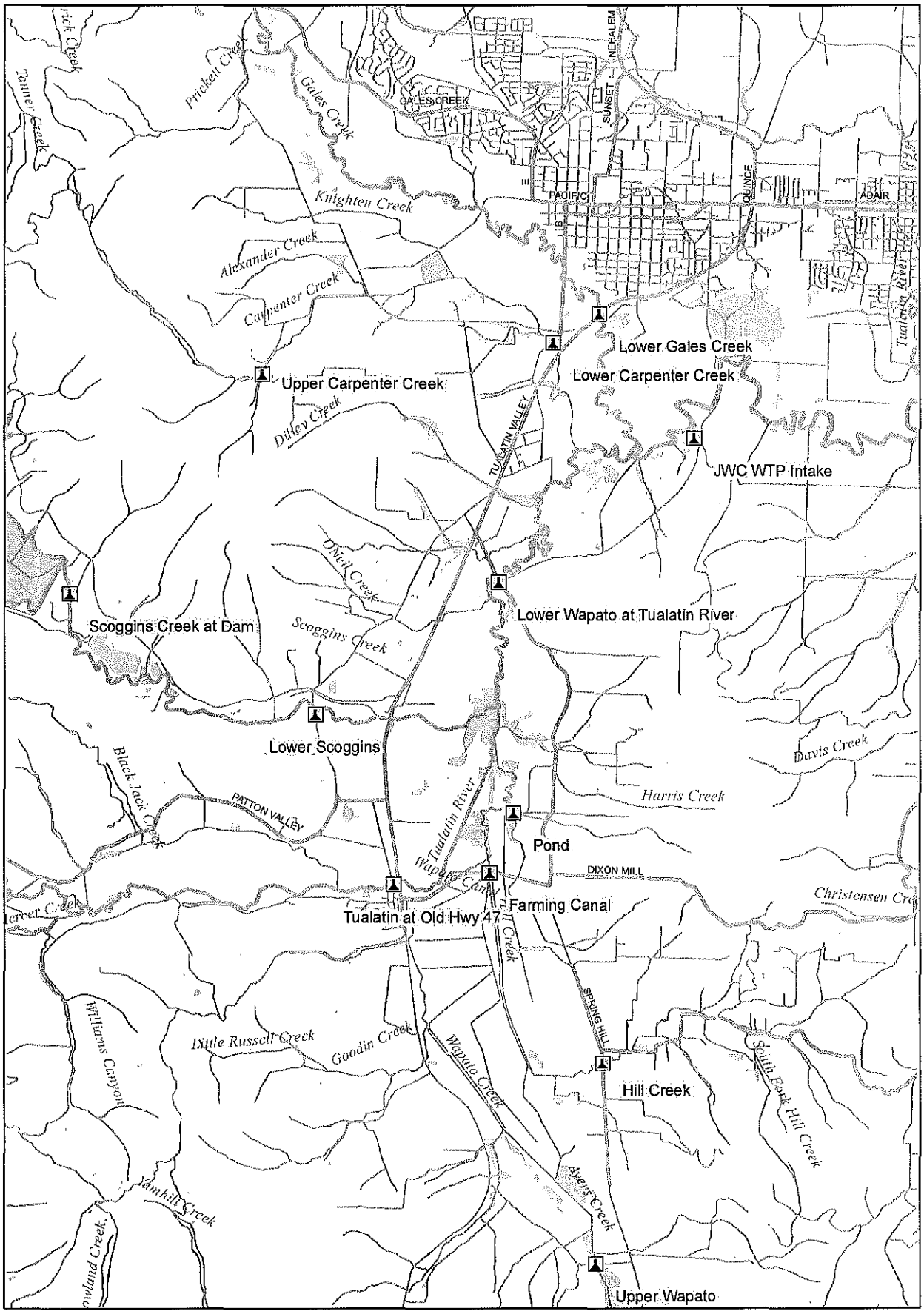
Regards,

- Stewart Rounds
US Geological Survey email: sarounds@usgs.gov
Oregon Water Science Center Ph: (503) 251-3280
2130 SW 5th Avenue FAX: (503) 251-3470
Portland, OR 97201

ID	SITE NAME	Date	TOC Lab ID	TOC* (mg/L) (MDL=0.50)	Time	TEMP (°C)	Conductivity µS/cm	DO (%)	DO (mg/L)	DO charge	Depth (m)	pH	pH mV	ORP	NH4+ (mg/L-N)	NH3 (mg/L-N)	NO3- (mg/L-N)	Chl-a (µg/L)	Turbidity (NTU)
T	Pond	6/19/2008	08171/45	8.58	12:50	14.28	121	52.60	5.33	28.80	1.081	7.06	-31.50	-43.6	0.152	0.000	6.656	22.2	69.8
U/F	Gales Creek at Hwy 47 Bridge	6/19/2008	08171/46	1.75	8:27	14.08	105	96.00	9.85	39.00	0.657	7.39	-50.30	-34.3	0.101	0.001	2.098	0.4	4.8
V/G	Tualatin River at Old Hwy 47 Bridge	6/19/2008	08171/47	1.14	10:43	11.29	93	94.90	10.39	35.90	1.27	7.72	-68.60	-63.0	0.052	0.001	3.505	0.7	2.5
W	Hill Creek	6/19/2008	08171/48	3.23	12:07	13.82	107	78.30	8.10	32.90	0.437	7.43	-52.30	-33.0	0.181	0.001	6.400	2.3	23.0
X	Upper Wapato	6/19/2008	08171/49	2.50	0.49	14.80	140	84.80	8.59	34.90	0.429	7.49	-56.00	-33.5	0.223	0.002	6.754	0.4	10.8
Y	Lower Wapato	6/19/2008	08171/50	3.72	12:34	12.31	74	78.80	8.43	31.80	1.363	7.46	-53.70	-52.4	0.199	0.001	2.117	2.2	8.6
Z	Farming Canal	6/19/2008	08171/51	16.9	11:08	17.80	102	86.40	8.21	35.90	1.331	7.08	-33.10	-48.7	0.427	0.002	5.482	10.8	39.9
T	Pond	7/21/2008	08199/18	39.1	11:16	18.29	172	17.60	1.65	34.90	0.64	7.11	-33.60	-98.8	0.401	0.002	5.906	88.2	92.2
U/F	Gales Creek at Hwy 47 Bridge	7/21/2008	08199/16	2.02	8:44	18.98	127	93.40	8.61	41.00	0.547	7.42	-52.30	-113.0	0.161	0.002	2.555	1.4	3.2
V/G	Tualatin River at Old Hwy 47 Bridge	7/21/2008	08199/17	1.25	10:25	15.34	74	100.80	10.08	41.00	1.25	8.00	-84.20	-98.3	0.080	0.002	3.112	0.4	2.7
W	Hill Creek	7/21/2008	08199/19	4.23	10:50	15.80	138	82.00	8.13	40.00	0.362	7.57	-56.20	98.7	0.385	0.004	4.621	2.2	12.8
X	Upper Wapato	7/21/2008	08199/20	1.80	10:40	15.34	141	89.80	9.00	40.00	0.523	7.57	-60.40	-100.4	0.361	0.004	4.408	2.0	8.1
Y	Lower Wapato	7/21/2008	08199/21	6.96	11:30	10.73	66	99.60	11.04	42.00	2.211	7.48	-54.20	-100.0	0.141	0.001	3.447	9.6	9.4
Z	Farming Canal	7/21/2008	08199/22	38.3	11:06	22.01	131	22.90	1.98	34.90	1.508	6.81	-16.80	-98.1	0.654	0.002	6.198	132.8	81.1
E	Raw Water at JWC WTP	7/21/2008	08199/15	6.04	12:46	74	95	10.08	41.00	0.279	7.08	-32.60	-77.7	0.228	0.001	0.475	13.9	11.8	
1	FW at JWC WTP	7/21/2008			9:12	13.83	122	105.60	10.91	41.00	0.278	7.48	-54.70	-93.8	0.197	0.002	1.580	0.2	0.1
T	Pond	7/24/2008			12:55	16.90	189	47.00	4.78	36.90	0.529	7.11	-34.00	-109.7	0.209	0.001	11.960	84.8	
U/F	Gales Creek at Hwy 47 Bridge	7/24/2008			9:08	17.44	128	96.60	9.25	41.00	0.586	7.30	-46.10	-99.2	0.096	0.001	1.276	1.7	4.1
V/G	Tualatin River at Old Hwy 47 Bridge	7/24/2008			12:07	14.08	71	107.90	11.09	41.00	1.129	7.41	-51.50	-101.8	0.043	0.000	8.503	0.7	3.8
Y	Lower Wapato	7/24/2008			1:10	10.11	65	123.60	13.85	42.00	2.297	7.51	-54.80	-90.0	0.064	0.000	8.500	12.8	
Z	Farming Canal	7/24/2008			12:35	20.08	129	33.90	3.05	34.90	1.608	6.96	-23.20	-110.4	0.352	0.001	7.715	199.6	117.0
E	RW at JWC WTP	7/24/2008			8:41	11.11	71	105.10	11.55	41.00	0.309	7.03	-30.10	-83.1	0.100	0.000	1.685	12.5	11.0
V/G	Tualatin River at Old Hwy 47 Bridge	7/28/2008			9:15	14.24	72	106.90	10.86	40.00	1.137	7.28	-44.30	-110.8	0.044	0.000	1.228	1.8	2.2
Y	Lower Wapato Creek	7/28/2008			9:46	10.42	70	104.80	11.72	40.00	2.199	6.84	-112.70	0.1	0.095	0.000	3.358	36.8	21.1
Z	Farming Canal	7/28/2008			9:30	17.57	126	33.50	3.18	34.90	1.625	6.42	4.30	-117.8	0.265	0.000	3.586	675.0	126.0
E	Raw Water at JWC WTP	7/28/2008			8:40	12.24	76	106.00	11.35	40.00	0.277	7.03	-30.10	-100.7	0.105	0.000	1.353	37.2	18.2
1	FW at JWC WTP	7/28/2008			8:30	13.48	128	113.60	11.84	41.00	0.28	7.44	-52.30	-101.5	-0.109	0.001	1.475	0.5	0.1
47	FW at 1954 SE 54th Ave	7/28/2008			11:10	15.25	123	127.90	12.80	42.00	0.359	7.84	-76.10	-124.6	0.095	0.002	6.161	1.1	
Y	Lower Wapato	7/31/2008			12:35	9.35	65	104.50	11.96	38.00	2.104	7.46	-54.30	-55.1	0.084	0.000	8.137	3.1	8.5
Z	Farming Canal	7/31/2008			12:15	19.26	255	28.00	2.58	32.90	1.503	6.26	13.50	-70.0	0.530	0.000	5.766	190.0	174.0

JWC Data

*Laboratory analysis: TOC method SM5310-C performed by Alexin Analytical
Turbidity readings done with handheld instrument
All other readings done in-situ with YSI 6920 Sonde


Tanner Creek
Pricket Creek
Gales Creek
GALESICREEK
NEHALEM
SUNSET
PACIFIC
QUINCE
ADAIR
Knighten Creek
Alexander Creek
Carpenter Creek
Tualatin River
Lower Gales Creek
Lower Carpenter Creek
Upper Carpenter Creek
Dilley Creek
TUALATIN VALLEY
JWC WTP Intake
ONeil Creek
Lower Wapato at Tualatin River
Scoggins Creek at Dam
Scoggins Creek
Lower Scoggins
Black Jack Creek
PATTON VALLEY
Davis Creek
Harris Creek
Tualatin River
Pond
Wapato Canal
DIXON MILL
Christensen Cre
Tualatin at Old Hwy 47
Farming Canal
Creek
SPRING HILL
Williams Canyon
Little Russell Creek
Goodin Creek
Wapato Creek
Hill Creek
South Fork Hill Creek
Averill Creek
Yamhill Creek
Upper Wapato

December 10, 2008

To: Members-Environmental Quality Commission
Fr: Ramsay Weit, Board member Tualatin Riverkeepers
Re: the Wapato experience

Members,

Just a note to urge your attention (and the Governor's) to creating clear lines of responsibility and accountability when incidents such as the Wapato discharge occur. The general public cannot and should not have to endure another round of apparent mutual agency deference and denials of jurisdiction when there are issues of public health afoot and water continues literally to run under the bridge.

Most folks would understand that there are issues pertinent to several state agencies involved in a "spill" such as the Wapato dumping, e.g. Ag and DEQ, as well as one or more of their federal counterpart agencies. I believe what the public would expect is an incident command response from the Governor's office (or some other source of interjurisdictional executive leadership) to address the problem, rather than allow various potential responder agencies to pass the ball.

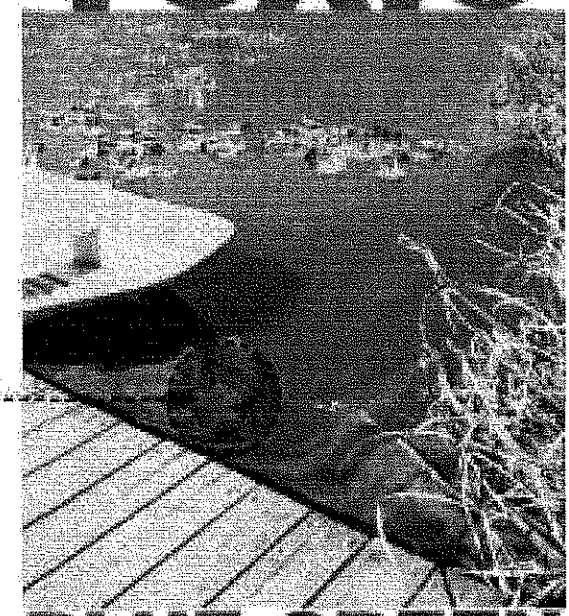
We've rolled out similar responses before in times of flood and other natural disasters. Incidents such as the Wapato may not be as significant statewide, but they do involve considerable costs ($300,000 in this case to the Joint Water Commission) and potentially serious local health risks from contaminated waters.

At a time when citizens frequently take a dim view of government's capabilities, we need to demonstrate a clear and decisive response to environmental incidents by establishing a consistent inter-agency protocol, an identifiable "go-to" person, and the authority of the Governor's office to align the state's agencies effectively and strategically to produce a coordinated and successful outcome.

Thanks for listening.

Ramsay Weit
5350 NW Pondosa Drive Portland, Oregon 97229
503-936-3306 polwonks@comcast.net

TOXIC



BLUE-GREEN *algae* BLOOMS

To report a blue-green algae bloom call your local health department.

For additional help or information call:

F. Joan Hardy, PhD.
Washington State Department of Health
Office of Environmental Health Assessments
360-236-3173 or toll free 1-877-485-7316

Mike Crayton, PhD.
Pacific Lutheran University
Biology Department
253-535-7547

Jean Jacoby, PhD.
Seattle University
Department of Civil and
Environmental Engineering
206-296-5526

For information on preventive measures and other ideas for protecting lakes contact:

Allan Moore
Washington State Department of Ecology
Water Quality Financial Assistance Program
360-407-6563

Washington State Department of Health

DOH Pub 333-006 6/2000

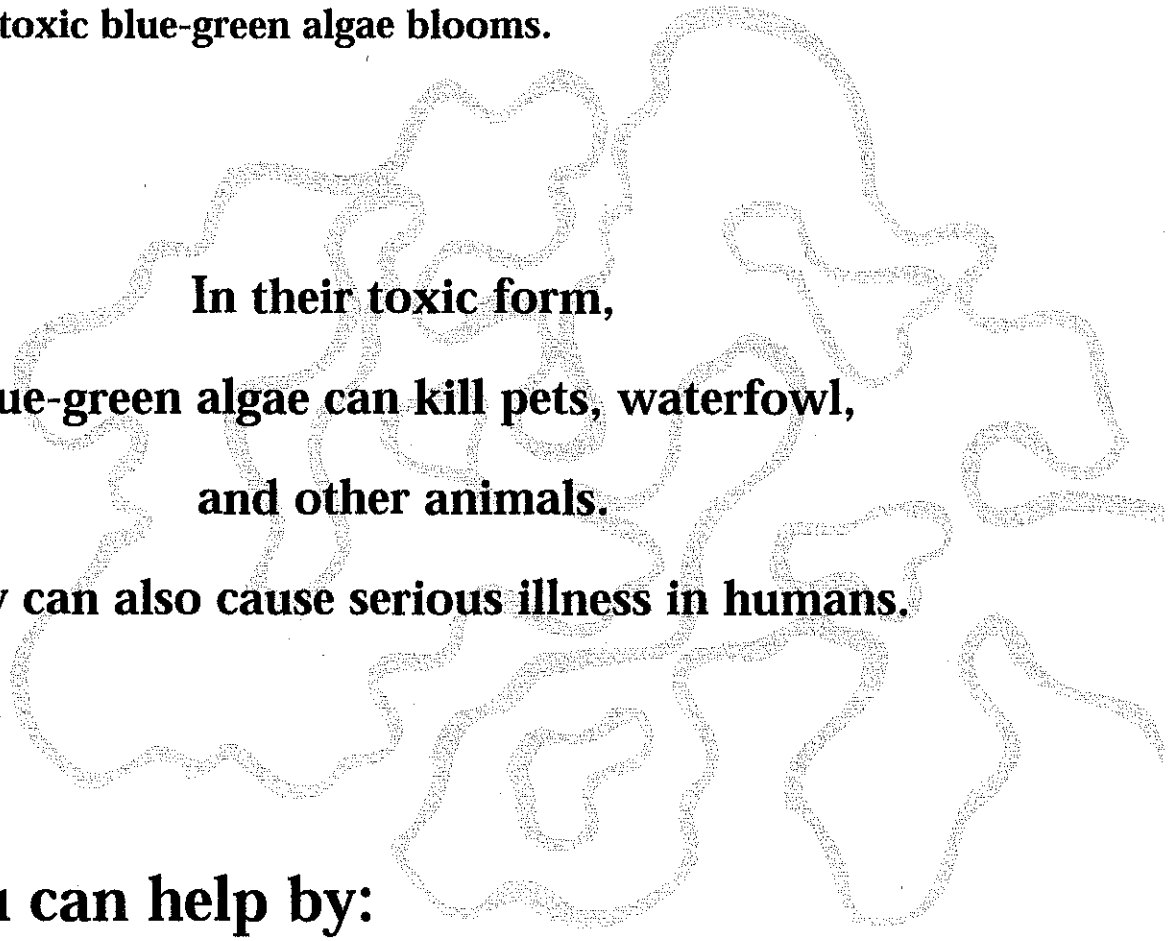
WASHINGTON STATE DEPARTMENT OF ECOLOGY

This brochure was produced in part through a grant from the Centennial Clean Water Fund.

If you . . .

- are a lake resident
- enjoy lake activities such as swimming, fishing, boating
- graze your livestock near a lake or pond
- are a veterinarian

. . . you may be able to help prevent a health threat to people and animals from toxic blue-green algae blooms.



In their toxic form, blue-green algae can kill pets, waterfowl, and other animals. They can also cause serious illness in humans.

You can help by:

- Learning how to identify and avoid contact with a bloom.
- Reporting algae blooms to your local health department.
- Decreasing "nutrient loading" in lakes and streams.

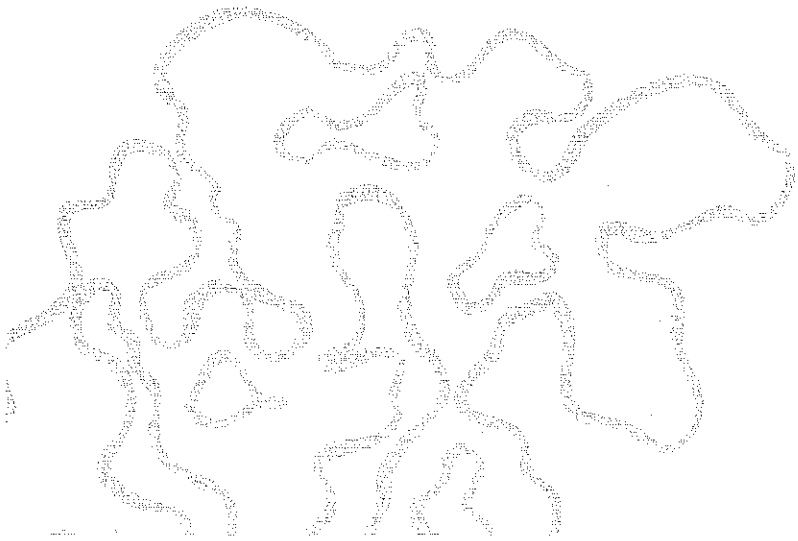
What Is A Blue-Green Algae Bloom?

Blue-green algae, or cyanobacteria, reproduce rapidly in fresh water when the amount of sunlight, temperature and nutrients are adequate. Within a few days a "clear" lake, pond or ditch can become cloudy with algae growth. This is called a bloom. Blue-green blooms usually float to the surface and can be several inches thick near the shoreline.

A blue-green algae bloom:

- Often looks like green paint floating on the water.
- Is made up of extremely small organisms that are hard to pick up or hold.
- Can be bright green, or bluish, brownish or reddish green.
- Is most common in the summer and fall but can occur anytime.

Although blue-green blooms can create nuisance conditions and undesirable water quality, most blue-green blooms are not toxic.



What Can I Do About It?

Algae blooms are likely to occur during sunny, calm weather when high concentrations of nutrients are present in the water. People can have a big effect on the amount of nutrients in a lake. Two important nutrients algae require are phosphorous and nitrogen. These are found in animal and human waste (sewage) and in fertilizers. Excessive amounts of nitrogen and phosphorus may lead to "nutrient loading" and eventually to an algae bloom.

To help decrease nutrient loading:

1. Maintain or restore native plants around lake shorelines and streams that feed the lake. Native wetland plants help filter water and don't require pesticides or fertilizers for maintenance.
2. Be extremely cautious with lawn and plant fertilizers and pesticides. Don't over-water, overfertilize, or use more than the recommended amount of pesticides.
3. Improperly-operating or damaged septic systems are a major cause of nutrient loading into nearby water. Proper care and maintenance of your septic system are essential. Have your system pumped and inspected every 3-4 years.
4. Prevent surface water runoff from agricultural and livestock areas. Do not allow livestock to drink or defecate in streams or lakes. Don't feed waterfowl.
5. Take steps to prevent erosion around construction and logging operations. Erosion can carry nutrient-rich soil into nearby lakes.

What Is A *Toxic* Bloom?

Some blue-green algae produce toxins or poisons. Eventually the toxins break down and are destroyed naturally. Ingesting the algae while they are still poisonous can cause serious illness. Residential drinking water taken from a lake may be affected.

Signs of a toxic bloom may include:

- Large numbers of dead fish, waterfowl or other animals.
- Sudden, unexplained sickness or death of a cat or dog, especially if it has algae on its mouth, legs or feet.
- A skin rash on humans after being in the water.

What If I See A Bloom?

As soon as you notice a bloom or possible signs of poisoning:

- Avoid all contact with water containing the algae.
- Keep pets and livestock away from the water.
- Call the environmental health section of your local health department.

Laboratory tests of water samples can confirm whether or not a bloom is toxic.

Contact With Blue-Green Algae Can Be Poisonous

Get proper medical or veterinary attention right away if you or your pets or livestock have signs of poisoning.

Blue-green algae can produce nerve toxins and liver toxins. Signs of neurotoxin poisoning usually appear within 15–20 minutes after ingestion. In animals, signs include weakness, staggering, difficulty in breathing, convulsions and death. In people, signs may include numbness of the lips, tingling in fingers and toes, and dizziness.

It may be hours or days before signs of liver poisoning appear. Liver toxins can cause abdominal pain, diarrhea and vomiting in humans and death in animals.

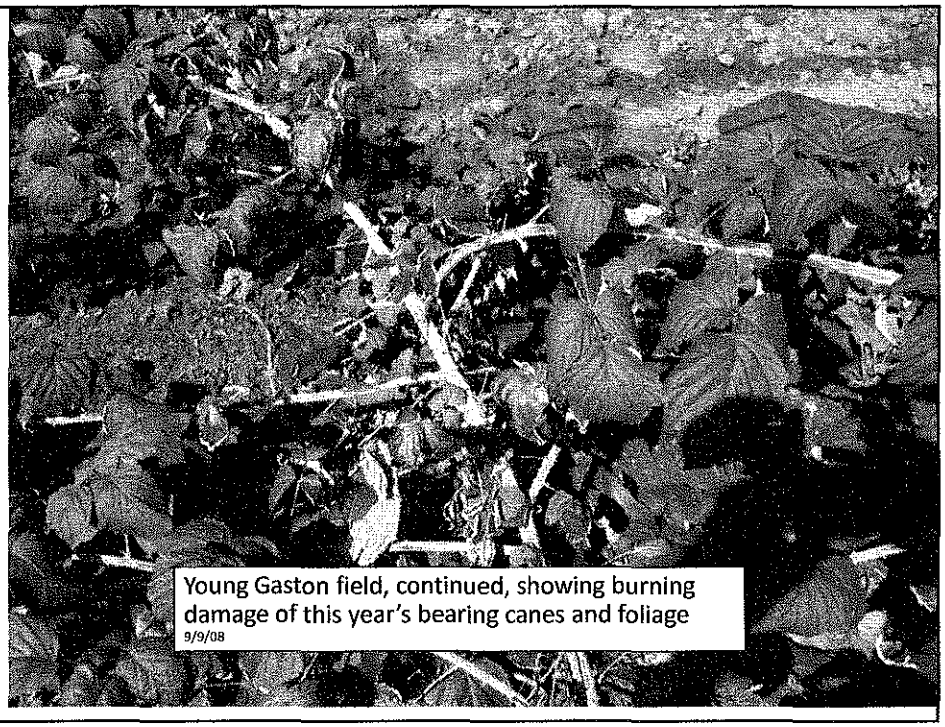
Poisoning is more severe the smaller the person or animal and the larger the amount of toxin ingested.

CD, in color included

Young blackcap field, Wapato, Gaston
All photos taken on 9/9/08

Foliar burning of this year's fruit bearing canes & leaves, loss of vigor in new growth. Symptoms began following irrigation with blue-green water from Wapato Lake in May-early June. New growth now improving after rainfall
(no further Wapato L. irrigation water used after early June)

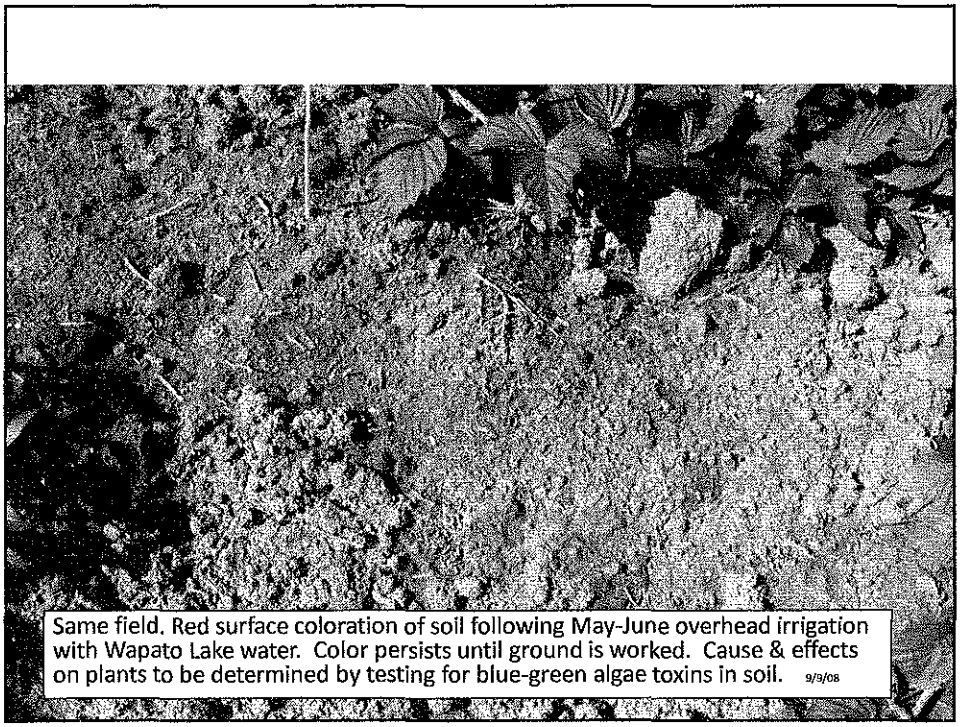
1



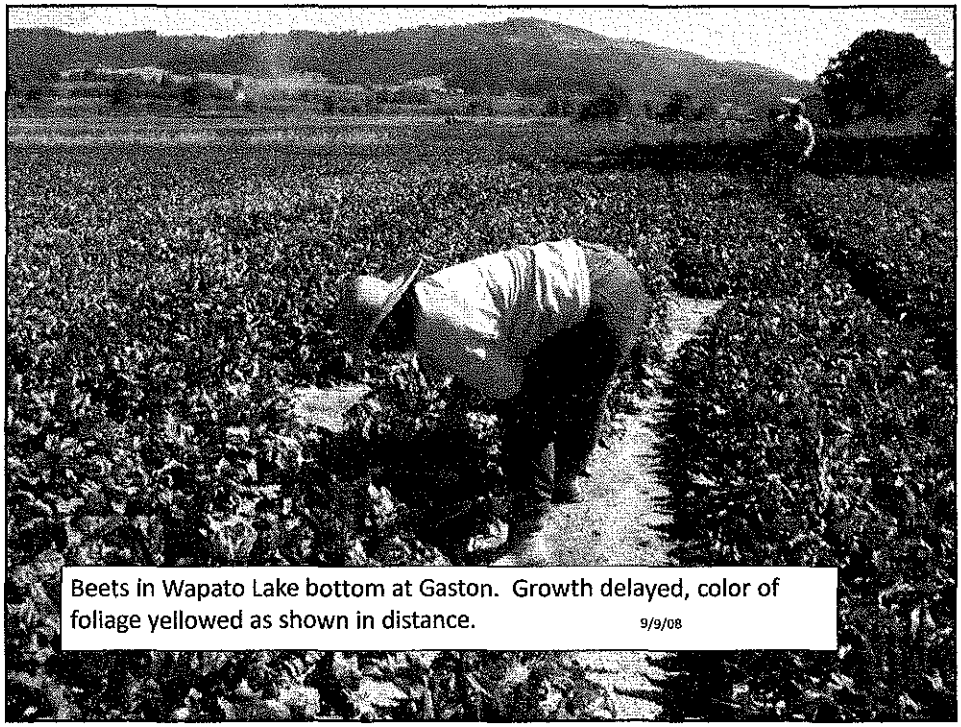
Young Gaston field, continued, showing burning damage of this year's bearing canes and foliage
9/9/08

Photos by Jean Edwards 503 706.9643

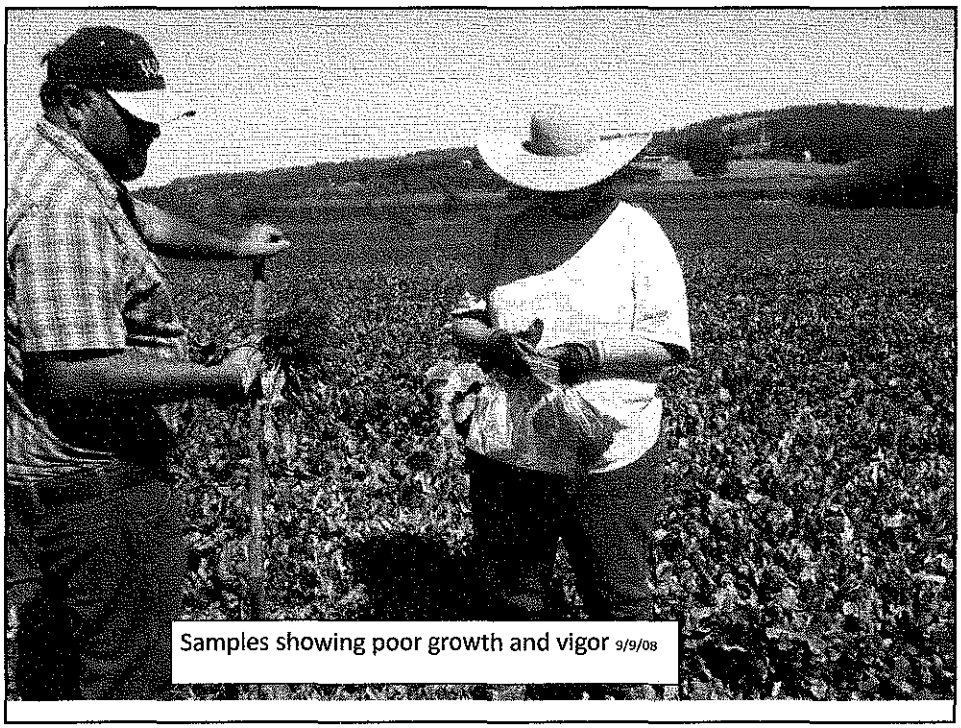
Young Gaston field foliar damage (continued) 9/9/08



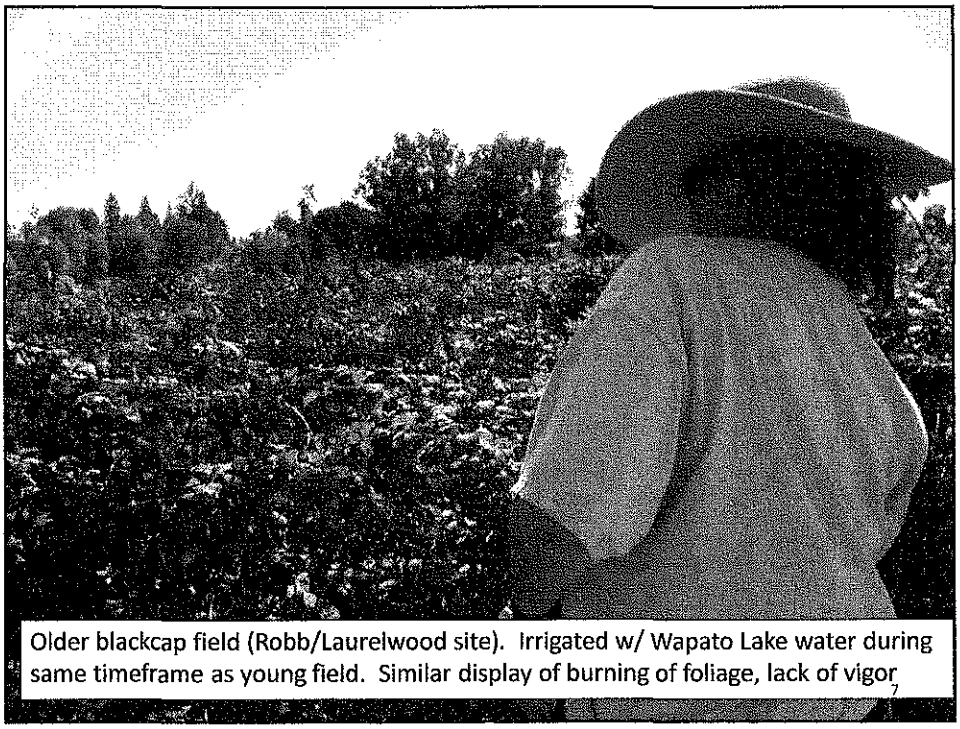
Same field. Red surface coloration of soil following May-June overhead irrigation with Wapato Lake water. Color persists until ground is worked. Cause & effects on plants to be determined by testing for blue-green algae toxins in soil. 9/9/08



Beets in Wapato Lake bottom at Gaston. Growth delayed, color of foliage yellowed as shown in distance. 9/9/08

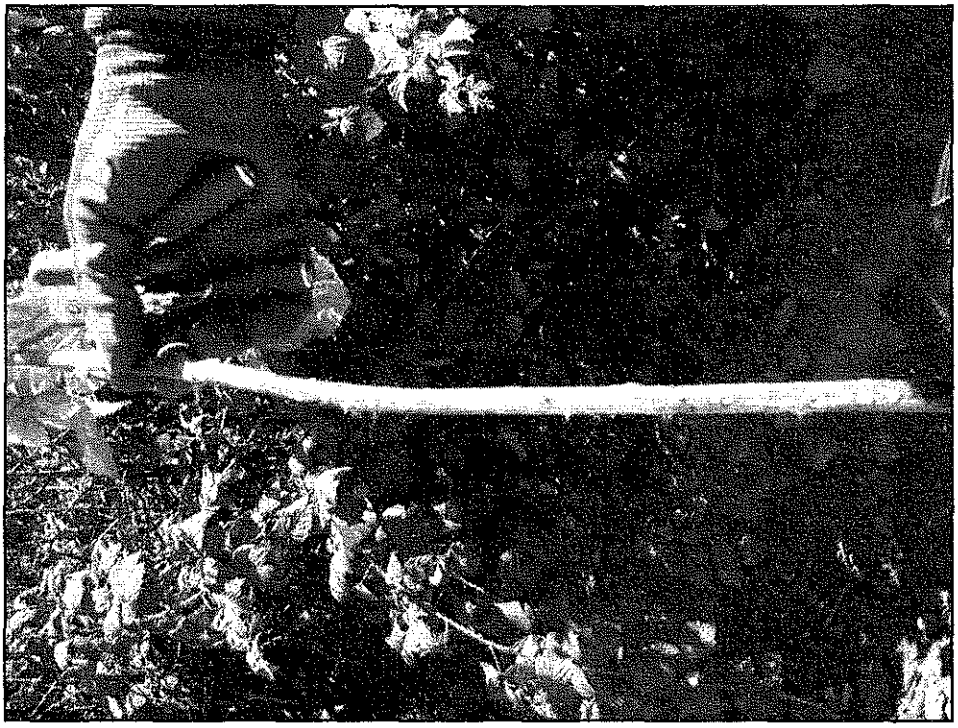


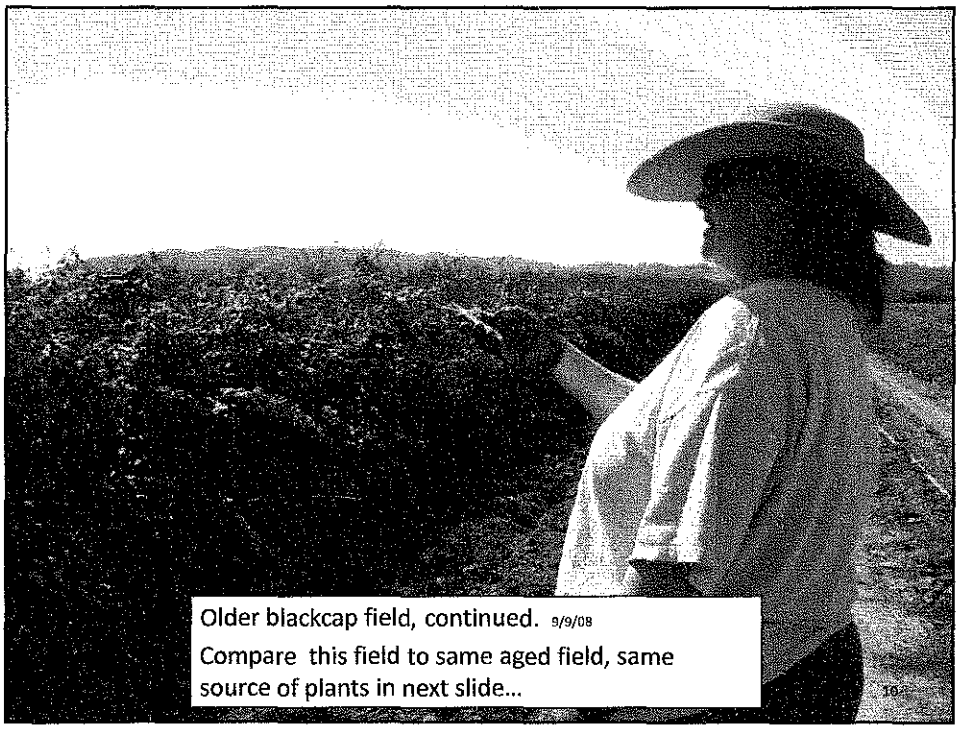
Samples showing poor growth and vigor 9/9/08

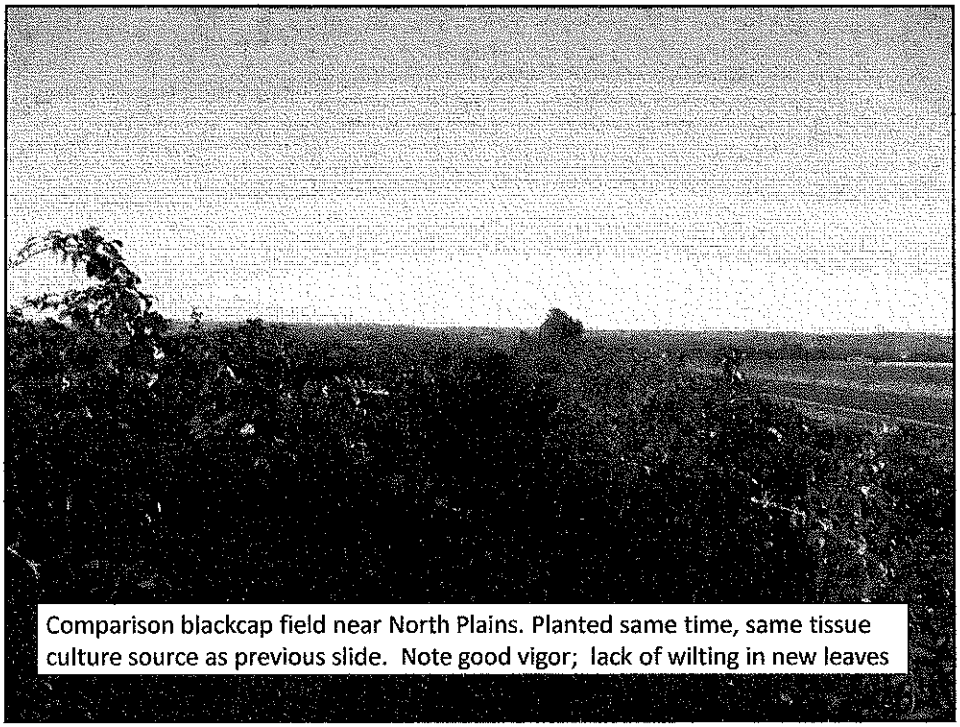


Older blackcap field (Robb/Laurelwood site). Irrigated w/ Wapato Lake water during same timeframe as young field. Similar display of burning of foliage, lack of vigor

cankers on stems 9/9/08

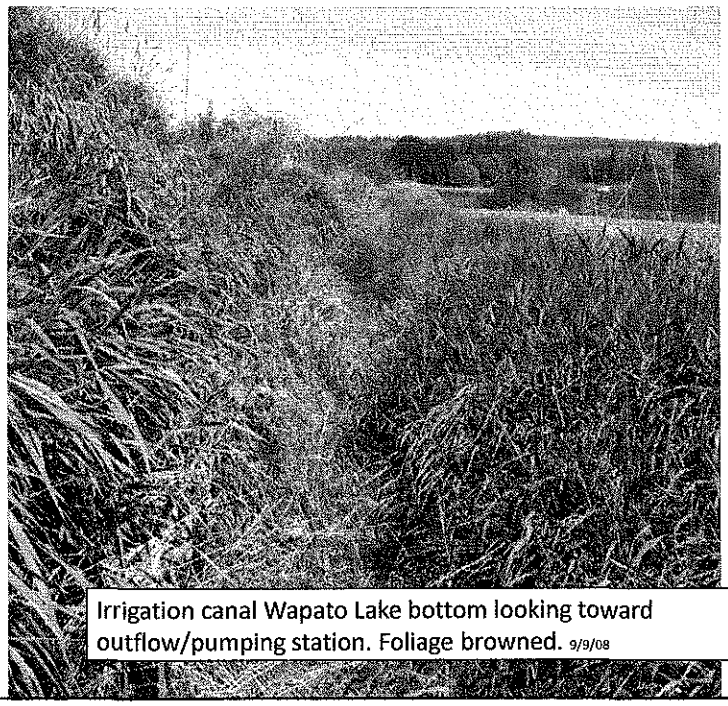



Older blackcap field, continued. 9/9/08
Compare this field to same aged field, same source of plants in next slide...



Comparison blackcap field near North Plains. Planted same time, same tissue culture source as previous slide. Note good vigor; lack of wilting in new leaves

Comparison field near North Plains, continued 9/9/08



Irrigation canal Wapato Lake bottom looking toward outflow/pumping station. Foliage browned. 9/9/08

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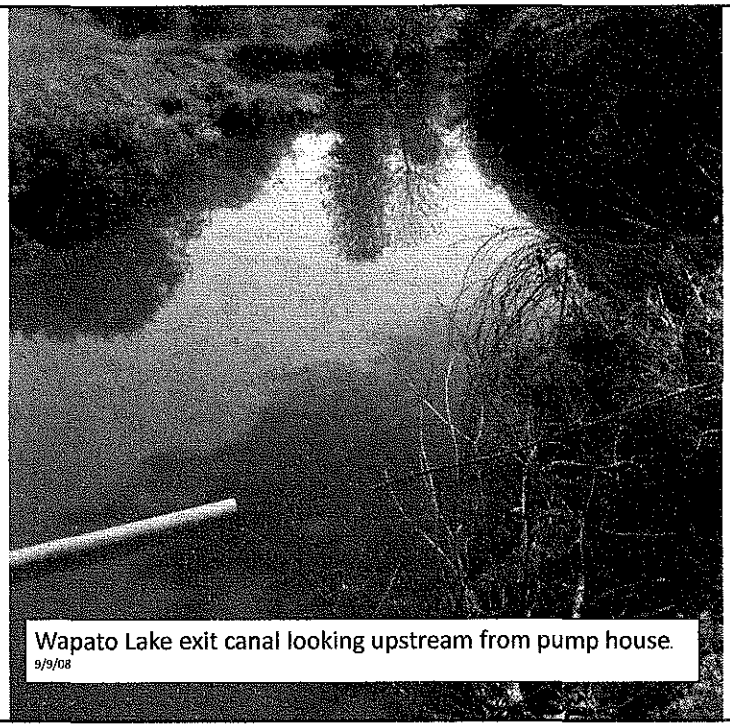

Wapato Lake exit canal looking upstream from pump house. 9/9/08

14


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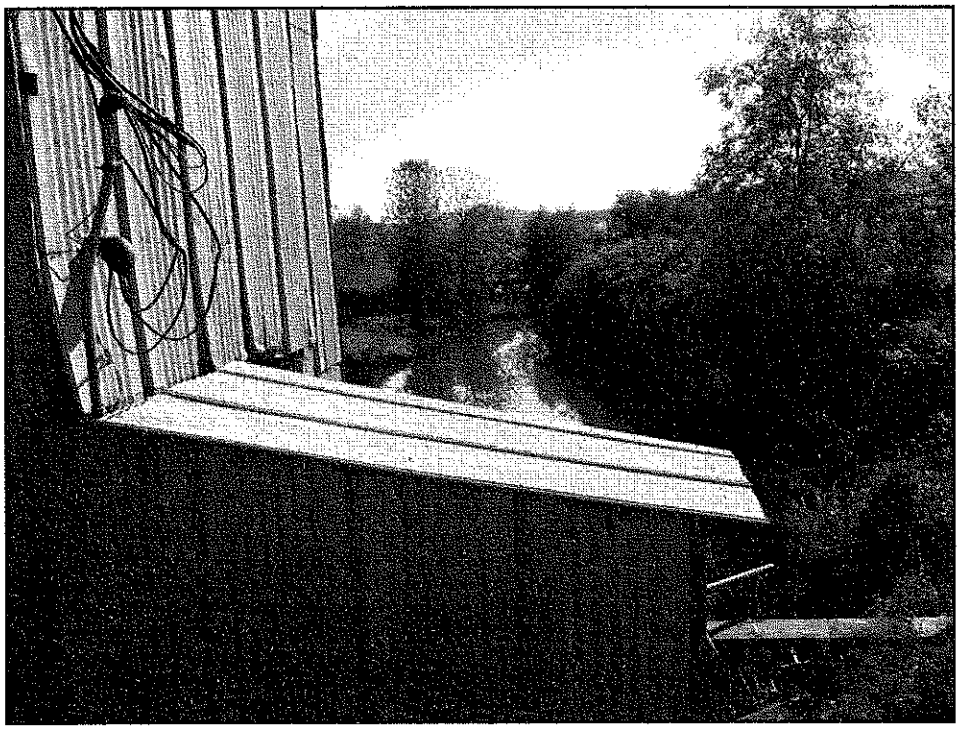
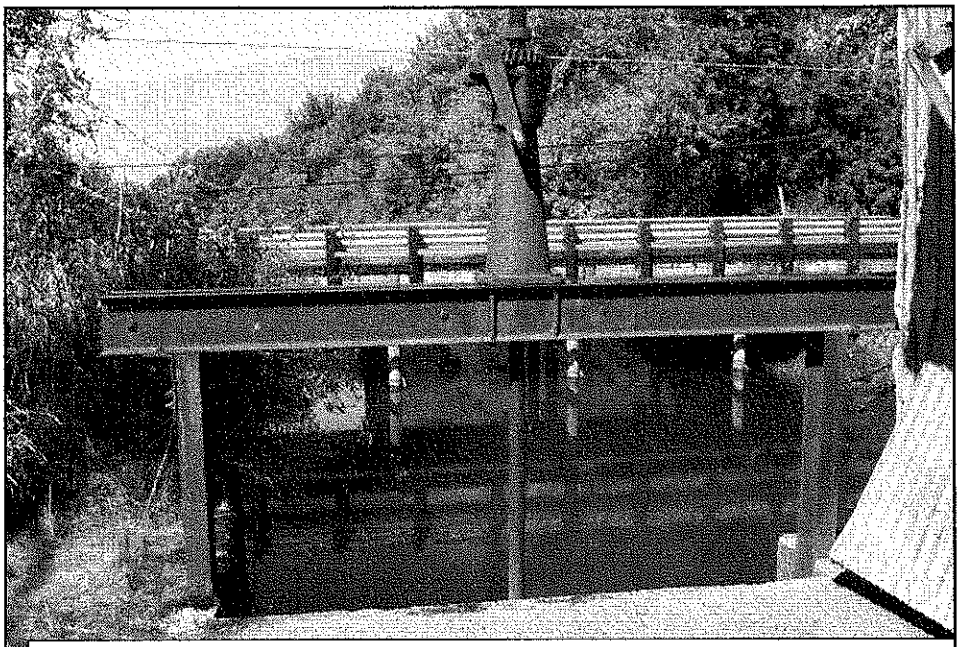
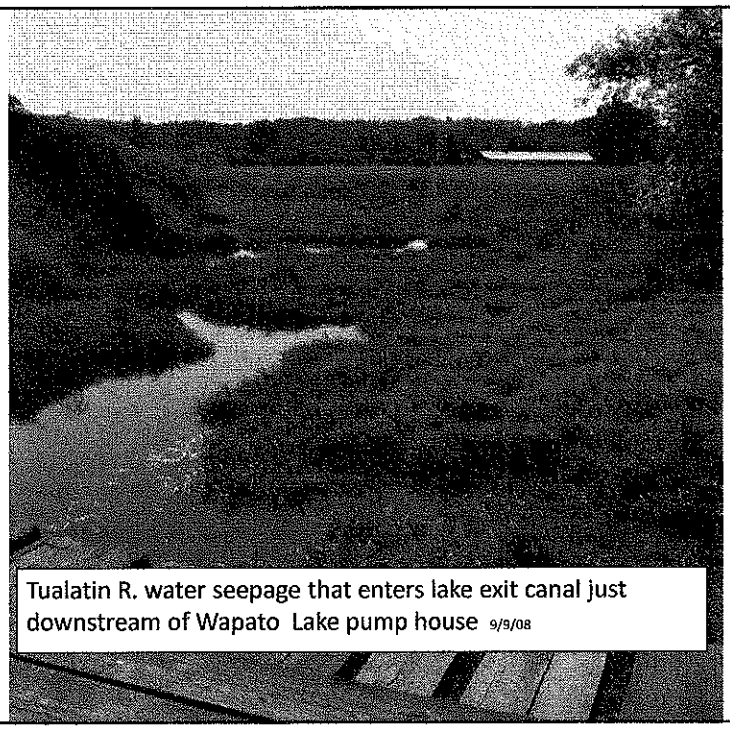




Wapato Lake exit canal looking downstream from pump house. Water mixes with some Tualatin R. here (shown in next slide). Note improvement in water clarity![17]



Tualatin R. water seepage that enters lake exit canal just downstream of Wapato Lake pump house 9/9/08

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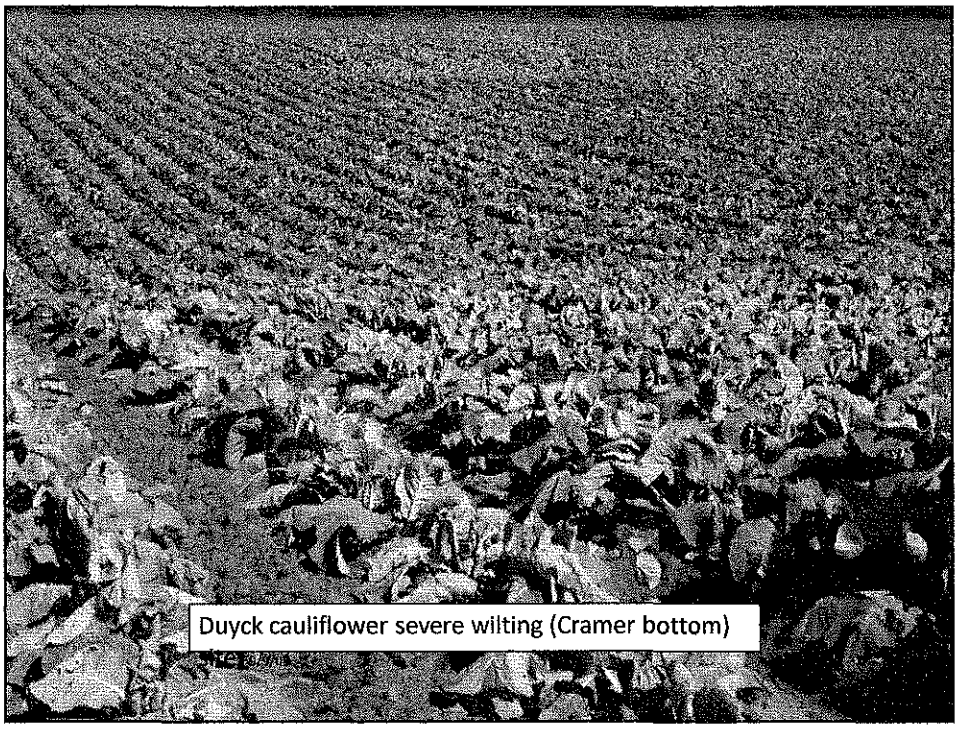
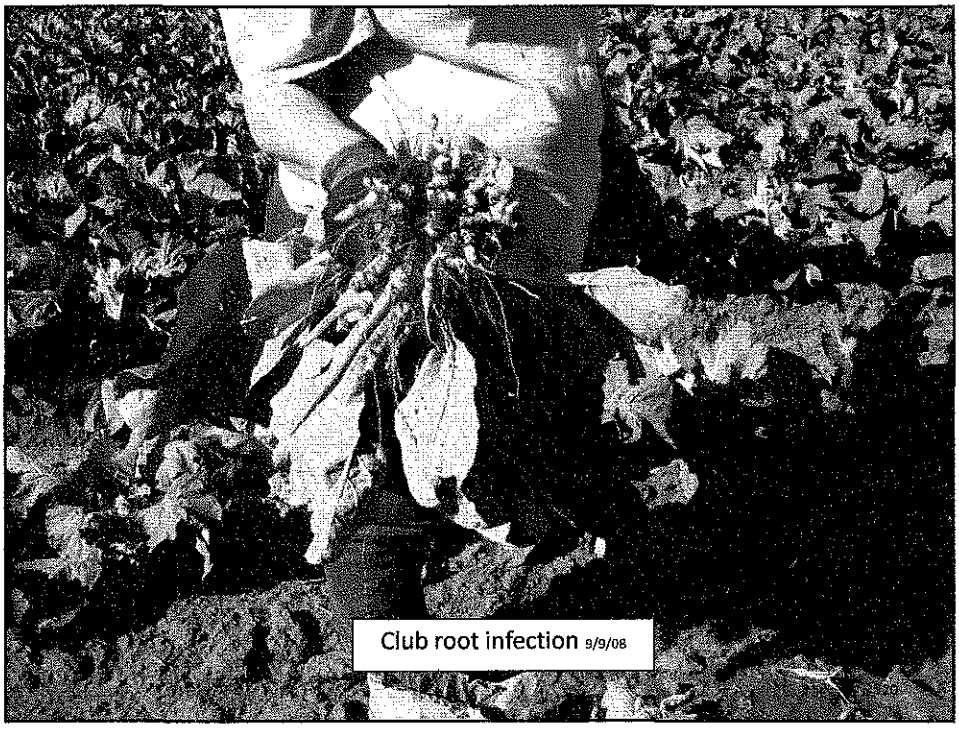
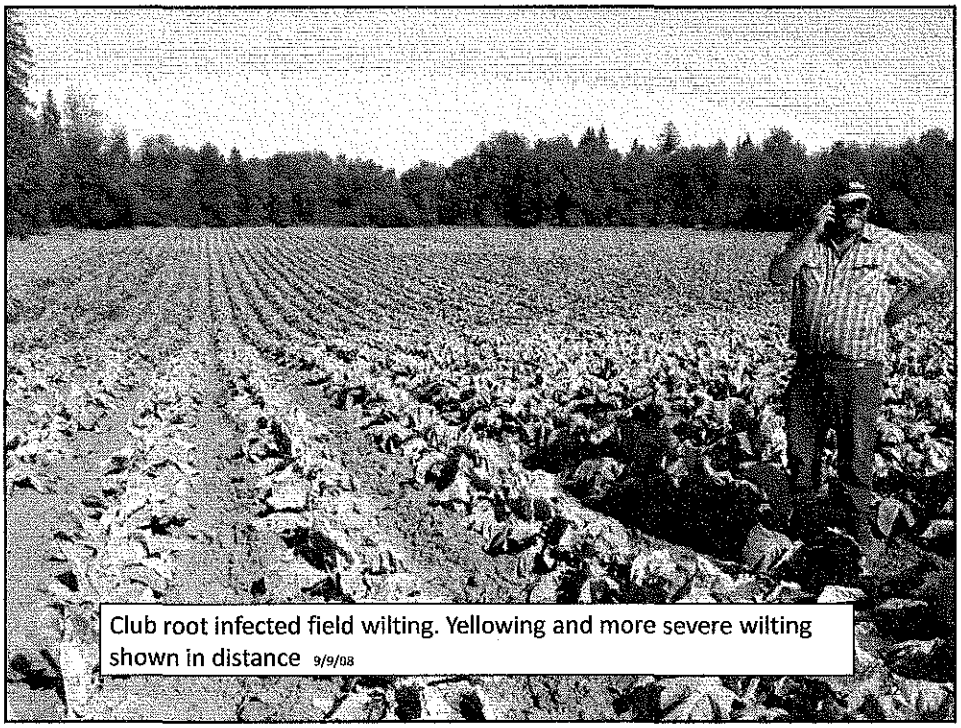


Duyck cauliflower severe wilting (Cramer bottom)



Club root infection 9/9/08



Club root infected field wilting. Yellowing and more severe wilting shown in distance 9/9/08

December 10, 2008

Environmental Quality Commission
Department of Environmental Quality Laboratory
TechPointe Commons- Building B
3150 NW 229th Ave
Hillsboro, Oregon

Dear Members of the Environmental Quality Commission,

I am a professional fisheries biologist. I worked with some of the Wapato Lake area farmers on this year's blue green algae problem. Before the agencies and general public became aware of the blue-green algae bloom in the lower Tualatin River in June-July, there were earlier blue-green algae problems upstream at Wapato Lake irrigation sites. Farmers observed characteristic bright blue, foul-smelling water coming out of the overhead irrigation water in late May-through June. Workers experienced acute and long-lasting skin burns from contact with the water. Signs of burned foliage on cane berry crops appeared shortly after overhead irrigation commenced, and crop losses, potentially associated with the algal bloom water, occurred through the summer and fall.

My concerns are: direct human exposure to the water; inhalation of blue green algae toxins from overhead sprayed irrigation water; and human consumption of contaminated fruit and vegetable crops, and the insufficient response by regulatory agencies.

Please consider the following information. The first is from the joint Washington State Dept. of Health/State Dept. of Ecology information guide for public and medical professionals regarding blue-green algae outbreaks. I quote:

"In its toxic forms, blue-green algae can kill pets, waterfowl, and other animals. They can also cause serious illness in humans."

"Contact with blue-green algae can be poisonous."..."Blue-green algae can produce nerve toxin and liver toxins. In people, signs may include numbness of the lips, tingling in fingers, toes and dizziness. It may be hours or days before signs of liver poisoning appear. Liver toxins can cause abdominal pain, vomiting in humans and death in animals." ..."Signs of toxic bloom may include: large numbers of dead fish, waterfowl or other animals; sudden, unexplained sickness of a cat or dog; a skin rash on humans after being in the water."

"Laboratory tests of water samples can confirm whether or not a bloom is toxic"

Australia's government has also documented effects of blue green algae toxins. I quote:

"Children are at greater risk of developing serious liver damage because of their comparatively lower body weight." ..."In general, children, older people and individuals with sensitive immune systems may be more susceptible to allergic reaction or toxicity." ..."Skin irritation, headaches, fever, nausea, vomiting and liver damage have been implicated after consumption of blue green algae toxin [even in] in treated drinking water in Australia. Extended exposure to low levels of toxins could have long term or chronic effects in humans."

"Boiling the water will not make it safe and may in fact increase the toxicity of the water. It is difficult to determine the toxicity of the bloom as it can change from day to day. So it is best to assume that all blooms are producing toxins and to act accordingly."

"There have been many widespread incidents of poisoning of wild and domestic animals. Death is usually caused by damage to the liver or nervous system, depending upon which toxins were present in the water consumed."

"Farmers [in Australia] have been seeking information that will lessen the likelihood of experiencing problems resulting from the algae. " Here is their information summary:

Risk to Livestock and other animals: Convulsions, paralysis, liver damage, skin sensitivities, death of livestock following ingestion. Dogs are particularly susceptible to poisoning because the algal scum attaches to their coats and is ingested during self-cleaning.
Fish consumption: the microcystins can accumulate in the tissues of fish, particularly in the viscera (liver, kidney, etc.), and in freshwater shellfish. Caution is advised and viscera should not be eaten.
Risk to Irrigated Pasture: The algae can remain toxic in dry form. Continued application of heavily affected waters on pastures can lead to significant toxin build up on foliage. Toxins can become air borne and be absorbed via inhalation.
Effect on Plants: Plants do not appear to absorb toxins, but parts of plants exposed to the algae that are eaten (such as fruits, vegetables) are risky. These should be thoroughly cleaned with non-toxic water. The toxins can cause significant crop loss.
Other: increased fish deaths, offensive taste and odors, corrosion of water supply systems and tank filter clogging, and water treatment problems. There are "more than 50 major types of freshwater blue green algae, and about one third of them can produce some form of toxins." Even after the algae bloom has been "treated with algaecide, the toxins released by the dead cells took more than three weeks to disappear."

In light of the above scientific information, these are my concerns:

1. Water quality tests did not address Wapato Lake or Tualatin River blue green algae toxicity, as far as I can determine. Throughout the summer, I made numerous inquiries to managers of Dept. of Ag, DEQ, Dept. of Human Services,

TVID, USGS, JWC, City of Hillsboro, Clean Water Services, Natural Resources Conservation Service, USFWS Wapato Refuge, and Extension Service, among others. See emails and responses. I was told that perhaps (fill in the blank) agency "could help." Despite agency managers' apparent lack of urgency and concern, virtually all of the agency laboratory experts I spoke with agreed that blue green algae toxicity was a potential human health and agricultural concern. The agencies, in short, shied away from any appearance of responsibility or obligation, in my opinion.

2. When I communicated my concerns of the potential toxicity of Wapato Lake irrigation water, and the specter of human ingestion of potentially contaminated vegetables and berries, no agency responded to my requests for testing. Despite one grower's request for specific guidance or advice as to whether these crops were safe to ingest, no response was provided. These crops were eventually harvested and marketed.

3. I commend Dr. Cindy Ocamb of the OSU Plant Pathology Department and Dr. Allen Milligan. At our request, they collected cauliflower, beet, blackcap raspberry and soil samples from the Wapato Lake irrigation area to test for presence of toxins. Dr. Milligan's cost estimate for lab analysis was $7,850. After several people, including me, urged immediate funding for crop, soil and water testing from Dept. of Ag, DEQ and others, I was given more agency runaround. In November I learned that funding for testing the samples was forthcoming. However I find this week that no analysis has been funded.

This entire saga has been deplorable. It is vital to public health and to the agricultural community that the agencies, especially Dept. of Ag, and DEQ, establish what their responsibilities are. Budgets must accommodate some level of toxin testing. Clear protocols of action are needed. A public information and agricultural community guidance system, such as the two that I presented from other jurisdictions, must be put in place prior to next season.

Thank you,

Jean Edwards

Jean Edwards
Hillsboro
jeanedwards@wildblue.net
503 706-9663

Enclosures: Photos

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item ____ or
Topic of Presentation Wapato Lake / Cyanobacteria

Brian Wegener
Name (Please print clearly)

12360 SW Main St Suite 100
Address

Tualatin Riverkeepers brianc tualatinriverkeepers.org
Affiliation Email (optional) Phone (optional)
503620 7503

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item G or
Topic of Presentation Oregon Integrated Water Mgmt Strategy

Tom Jackson, Oregon Water Resources Commissioner
Name (Please print clearly)

37931 SW Blooming Fern Hill Rd. Cornelius, OR
Address

OWRC
Affiliation Email (optional) Phone (optional)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item ____ or
Topic of Presentation Wapato discharge / Blue Green Algae

Sue Marshall
Name (Please print clearly)

15941 SW Inverness Road, Lake Oswego 97035
Address

Tualatin Riverkeepers svemarshall6@hotmail.com 971-506-4617
Affiliation Email (optional) Phone (optional)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item ____ or
Topic of Presentation Cyanotoxins accumulate and damage crops

Allen J Milligan
Name (Please print clearly)

Address 1950 SE Bethel St

OSU Corvallis, OR Allen.Milligan@Science.Oregonstate.edu
Affiliation Email (optional) Phone (optional)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item Public comment or
Topic of Presentation Wapato Lake

Steve Duyck
Name (Please print clearly)

3065 19th St Forest Grove Or 97116
Address

357-4787

FARMER 503 970-2224
Affiliation Email (optional) Phone (optional)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item Public Comment or
Topic of Presentation WAPATO LAKE / BLUE GREEN ALGAE

JEAN EDWARDS
Name (Please print clearly)

30350 NW SCOTCH CHURCH RD HILLSBORO 97124
Address

CITIZEN jeanedwards@wildblue.net 503 706.9663
Affiliation Email (optional) Phone (optional)