State of Oregon
Department of Environmental Quality Memorandum

Date: February 12, 2010

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda item F1, Action item: Air Toxics Science Advisory Committee reappointments
February 18-19, 2010 EQC meeting

Why this is important

The Air Toxics Science Advisory Committee provides DEQ with advice on the state air toxics program that is scientifically and technically sound, independent, balanced, useful and timely.

DEQ recommendation and EQC motion

DEQ recommends that the commission concur with the director's decision to reappoint five Air Toxics Science Advisory Committee members, as indentified in attachment A of this item, for a three-year term, effective immediately.

Commission authority

The commission may take action on this item under OAR 340-246-0070(3).

Background

In 2003, the commission adopted air toxics rules that established a standing technical committee. The rules required members of this Air Toxics Science Advisory Committee to demonstrate experience in specific disciplines relevant to air toxics. The committee is a technical advisory body, and is charged with the following responsibilities:

- Reviewing ambient benchmarks for the state air toxics program;
- Providing advice on development of a risk assessment methodology for the Safety Net Program per OAR 340-246-0190 (5) and (6);
- Evaluating potential sources identified by DEQ to determine whether they qualify for the Safety Net Program, as specified in OAR 340-246-0190 through -0230;
- Evaluating overall progress in reducing emissions of, and exposure to, air toxics by considering trends in emissions and ambient concentrations of air toxics;
- Periodically advising DEQ on air toxics program effectiveness
- Making technical recommendations for program development with respect to: (a) adverse environmental effects of air toxics and (b) risk from exposure to multiple air toxics ;
- Providing, as requested by DEQ, advisory opinions on questions requiring scientific expertise.

Attachments A. Biographical information for the committee members

Approved:

Division: _____

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Air Toxics Science Advisory Committee member biographies

Brian Patterson, Ph.D.
Dr. Patterson is currently employed as an environmental consultant with Golder Associates Incorporated in Lake Oswego, Oregon. He has served as a member of the ATSAC since its inception in 2005 and was elected Chair of the Committee in May 2008. He holds a bachelor's degree in Chemistry and a doctorate degree in Physical Chemistry. His areas of expertise include risk assessment, air dispersion modeling, air receptor modeling, environmental regulatory review and air quality permitting. Over his 19-year career as an environmental consultant, Dr. Patterson has completed numerous air quality risk assessments in accordance with U.S. EPA guidance for plywood and composite wood products manufacturing facilities, human health risk assessments under the California AB2588 program, multi-media contaminated site human health risk assessments, and a two-year comprehensive human health risk assessment for the Lawrence Berkeley National Laboratory to meet California Environmental Quality Act requirements.

William Lambert, Ph.D.
Dr. Lambert has served as a member of the ATSAC since its inception. He is an Associate Professor in the Department of Public Health and Preventive Medicine at Oregon Health and Science University (OHSU). From 1987-2000, he held faculty and research positions at the University of New Mexico School of Medicine. He received his Ph.D. from the Department of Epidemiology and Environmental Analysis at the University of California, Irvine and a BA degree from the Department of Biology at the University of California, Los Angeles.
His areas of expertise are air pollution epidemiology, exposure assessment, toxicology, and biostatistics. He has served on a number of advisory/regulatory committees, including Chair of the City of Albuquerque/Bernalillo County Air Quality Control Board, a principal author of state of the science reviews for the American Thoracic Society's Environmental Health Committee, and as member of the Childhood Lead Poisoning Taskforce, Children's Environmental Improvement Project, and Turning Point Environmental Health Initiative, in New Mexico. Currently, he is Chair of the Board of Directors for the Josiah Hill III Clinic in Portland. His community service has been recognized by several organizations, including the Clean Air Award of the American Lung Association of New Mexico and the Lifesaver Award of the New Mexico Chapter of the American Cancer Society.

Kent Norville, Ph.D.
Dr. Norville is an Associate Atmospheric Scientist and project manager at Air Sciences Inc. in Portland, Oregon. He also is an original member of the ATSAC. He specializes in air quality dispersion modeling, data analysis, and model development. He has considerable experience with a wide variety of models for a number of different public and private sector modeling applications. Applications include regulatory permit modeling, risk assessments, and

environmental impact statements; dust fall and deposition studies; accidental release dispersion modeling; visibility modeling; water vapor cloud assessments; odor assessments; transportation conformity and hot spots dispersion modeling; meteorological data processing and assessments; specialized modeling; and custom model development. He has provided modeling assistance to a number of industrial clients, including aluminum producers, wood product facilities, pulp and paper facilities, metal processors, cement plants, mining operations, food producers, electric power producers, composting facilities, and waste treatment facilities.

Dr. Norville is experienced with risk assessment methods and applications and has worked on a variety of different risk and toxics projects, including EPA superfund sites, public municipalities, and private industries across the United States. He holds a Ph.D. degree in geophysics from the University of Washington and a B.S. degree in physics from the California Polytechnic University, San Luis Obispo.

Natalia Kreitzer, P.E.
Ms. Kreitzer received a B.S. degree in chemical engineering from Oregon State University and has been employed as an air quality engineer, first as a consultant and more recently as an air quality regulator. She is also an original ATSAC member. Her relevant engineering experience includes knowledge of sources of toxic emissions to the air, emission control strategies and current and future EPA regulations affecting toxics air emissions.

For the past six years she has worked for the Southwest Clean Air Agency (SWCAA) in Vancouver, Washington and has been the air toxics coordinator at SWCAA since 2000. In addition, her duties include writing Air Discharge Permits for industrial facilities, inspecting industrial facilities and determining compliance with all applicable air regulations including Washington's toxic rule "Controls for New Sources of Toxic Air Pollutants." In 2002, she participated as a member of Washington's Mercury Chemical Action Plan Advisory Committee and assisted in the development of a plan to reduce mercury in the state of Washington.

Dean Atkinson, Ph.D.
Dean B. Atkinson is an Associate Professor of Chemistry at Portland State University in Portland, OR. He received his Ph.D. in Physical Chemistry from the University of Arizona in Tucson in 1995, where he studied the low-temperature kinetics of atmospherically relevant reactions (primarily involving OH radicals) with Dr. Mark A. Smith. He had a two year NRC Postdoctoral Research Assistantship at NIST in Gaithersburg, MD, where he worked with Dr. Jeffrey W. Hudgens on methods for measuring reaction kinetics of free radical reactions, predominantly using pulsed laser photolysis/cavity ring-down spectroscopy. After starting at PSU, he built on that work and became one of the acknowledged experts in the application of the cavity ring-down method, particularly as applied to environmentally related measurements. Since much of his work at PSU has centered on atmospheric chemistry and physics, he has developed

some expertise in this area, particularly in methods used to measure atmospheric species (e.g., trace gases, radicals, particulate matter.) He is familiar with the methods used to model the atmosphere, although his research has not involved the application of those methods to date.

The Atkinson group is currently funded by NOAA to produce a new type of airborne cavity ring-down instrument for measuring the optical properties of the aerosol aloft. The measurements made possible by this instrument should help to clarify both the direct and indirect radiative forcings associated with particulate matter, currently the largest single unknown in the estimation of global climate change. A prototype of the instrument was used for an EPA funded field study in Portland investigating the ambient aerosol optical properties and whether they can be used as a "signature" for diesel PM. This instrument was also used in the TRAMP (TexAQS II Radical and Aerosol Monitoring Project) portion of the TexAQS II field intensive during the summer of 2006. Current research projects focus on the use of the cavity ring-down technique to investigate air quality and climate change in the context of aerosol effects and the measurement of ambient atmospheric benzene levels in Portland.