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OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 01/23/2004

State of Oregon
Department of Environmental Quality

Umatilla Chemical Demilitarization Program

Environmental Quality Commission 2004 Update

State of Oregon

Department of Environmental Quality — Memorandum

DEQ Item No. 04-0105 (92.05) — Date: January 23, 2004

To: Ken Williamson, EQC Member

From: Dennis Murphey
Administrator
Chemical Demilitarization Program

Subject: Background Materials Regarding the Umatilla Project

First, let me welcome you to the Oregon Environmental Quality Commission (EQC) and congratulate you on your appointment. All of the DEQ staff with the Chemical Demilitarization Program in Hermiston are looking forward to working with you. You are joining the EQC at a critical time for the project to destroy the inventory of chemical weapons stored at the Umatilla Chemical Depot (UMCD).

Enclosed are some materials related to the project we have compiled to provide you background information for some of the decisions you will be making over the next several months regarding UMCD. We are also coordinating plans for you to tour UMCD and the Umatilla Chemical Agent Disposal Facility (UMCDF) on February 3, 2004.

The U.S. Army and its contractor, the Washington Demilitarization Company (WDC), are involved in systemization and shakedown activities at UMCDF, including surrogate trial burns of various incineration systems to be used in the destruction of chemical weapons agents and agent-contaminated materials at the Depot. The Army and WDC are working on a schedule that they hope will result in the start of agent destruction activities at the site by the summer of this year.

Before agent destruction can begin, EQC will be making two major decisions:

1) whether to approve a Permit Modification Request (PMR) to change the compliance point for air emissions in the facility's hazardous waste permit from the inlet to the carbon filters on the pollution abatement systems of the incinerators to the exit of the carbon filters, and
2) when to authorize UMCDF to begin chemical agent destruction operations.

You will be receiving a significant amount of materials related to these two issues from DEQ's Chemical Demilitarization Program staff over the next few months.

At your first EQC meeting on February 5, 2004, my staff and I will provide an oral and written update of activities related to the Umatilla project and there will be an opportunity for interested members of the public to share their comments with you regarding the pending PMR for the

carbon filters at UMCDF. If, at any time, you have questions regarding the Umatilla project or want to discuss any aspect of the project, please call me (541/567-8297, ext 22) or send me an e-mail at murphey.dennis@deq.state.or.us

Cf: Mark Reeve, EQC Chair
Diedre Malarkey, EQC Member
Lynn Hampton, EQC Member
Stephanie Hallock, DEQ Director
Paul Slyman, DEQ Deputy Director

Highlighting the U.S. Army's Chemical Demilitarization Program

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Umatilla
Spring 2003

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2003: A Pivotal Year for Umatilla

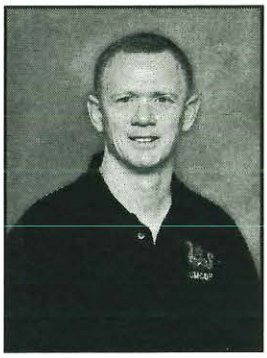
By Don Barclay, U.S. Army Site Project Manager

We are pleased with the progress of the Umatilla Chemical Agent Disposal Facility's ongoing testing phase. During this "shakedown" period, we are fine-tuning dozens of major systems to ensure they will work safely and at maximum efficiency during actual disposal operations.

Through our testing activities and surrogate trial burns—which use no chemical warfare agents—we put greater demands on the incinerators than they will face during actual operations to prove their efficiency and safety. We are confident we will demonstrate to regulators and to the community that we will be ready to move forward with agent disposal.

We have a new general project manager for Washington Demilitarization Co., which built the facility and will operate it on behalf of the Army. Doug Hamrick is a Tri-Cities native who most recently worked at the Anniston, Ala., chemical weapons disposal facility. Hamrick brings management experience in virtually every aspect of such facilities, including: construction, startup, operations and closure. He has held key management positions at similar government facilities in Hanford, Wash., and Rocky Flats, Colo.

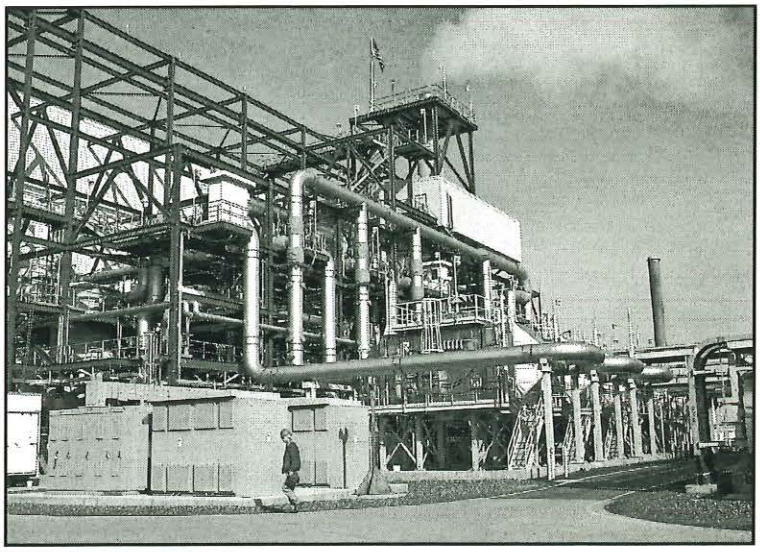
The year 2003 is shaping up as a pivotal year for both the Umatilla Chemical Agent Disposal Facility and the Army's national chemical weapons disposal program. Since operations began in 1990, the Army and its contractors have destroyed about 25 percent of the national stockpile at facilities at Johnston Island and Tooele, Utah. This year as many as four more facilities may begin operations: Aberdeen, Md., Anniston, Ala., Newport, Ind., and Umatilla, Ore. The disposal plant at Pine Bluff, Ark., is in the testing stage, about a year away from startup.



Don Barclay, U.S. Army Site Project Manager

Additionally, final cleanup activities at the Johnston Island facility will continue. We expect to begin VX agent disposal at Tooele, which has destroyed all its GB agent. Construction of a disposal facility at Pueblo, Colo., is also in the planning stages, and it has been announced that a disposal technology has been selected for Blue Grass, Ky.

Without such strong support from citizens, we would not have achieved so much. With your continued support, the year 2003 will be a pivotal year for our program.



Emissions from incinerators will be cleaned in the pollution abatement system, shown above, before release.

www.pmcd.army.mil

U.S. Army Program Manager for Chemical Demilitarization
PMCD

High-temperature incineration destroys chemical warfare agents

The Umatilla Chemical Agent Disposal Facility is a third-generation plant that builds on the successes of chemical weapons incinerators at Johnston Island and Tooele, Utah. The incineration technology has been reviewed and endorsed by such organizations as the U.S. Environmental Protection Agency, U.S. Centers for Disease Control and National Research Council.

The incineration process involves dismantling chemical weapons into three separate waste "streams." Each stream is fed to specially designed disposal systems fueled by natural gas. The chemical warfare agent is injected into a liquid incinerator. A mixed stream of explosives and propellants, small metal pieces and residual agent are fed into a rotary kiln known as the deactivation furnace. Large metal parts, such as empty artillery shells, are cleansed in the metal parts furnace.

All are equipped with safety features including automatic feed cut-off systems, and each has its own pollution abatement system to clean the exhaust.

The Liquid Incinerator

The Umatilla Chemical Agent Disposal Facility contains a pair of identical incinerators designed to destroy chemical agents GB, VX and mustard, all stored in liquid form. The incinerators are also designed to destroy other agent-contaminated or potentially contaminated liquids generated from cleanup activities.

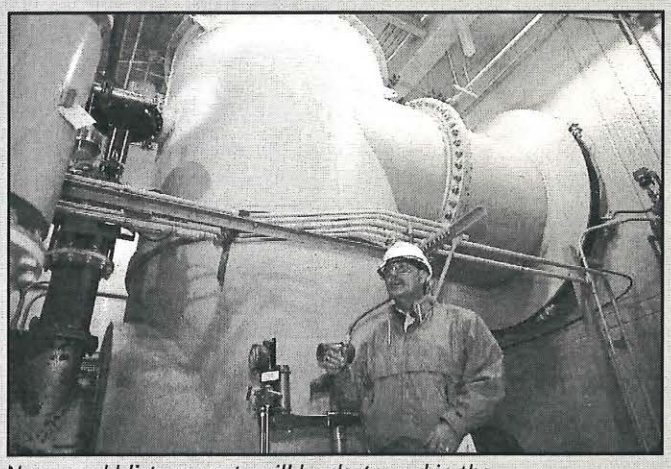
During disposal operations, chemical warfare agent is drained and removed from various munitions and stored in tanks. The agent is then pumped into the incinerator's primary chamber to be burned. Similarly, decontamination solutions collected in tanks are pumped to the liquid incinerator's secondary chambers to be burned.

Chemical warfare agent is introduced into the incinerator's primary chamber by injection nozzles and burned at 2,700 degrees. Chemical warfare agents are organic compounds, similar to pesticides, which can be completely destroyed in a fraction of a second by the incinerator's high temperatures and oxygen-rich atmosphere. In the interest of safety, the liquid incinerator burns the agent far longer and hotter than necessary to completely destroy the agent. Because chemical agent readily burns, it becomes the primary chamber's main fuel source.

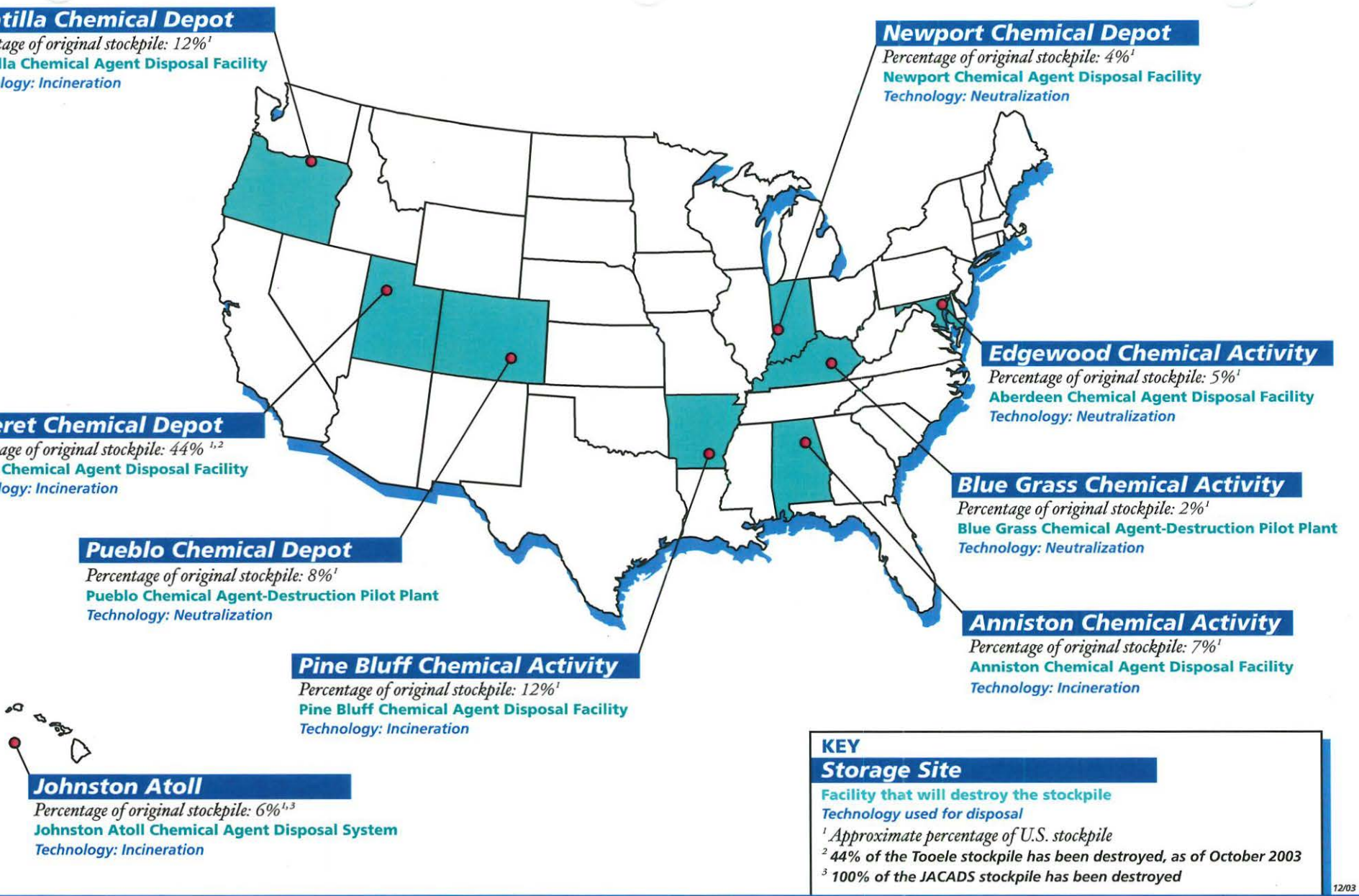
Exhaust gases from the combustion process flow out of the primary chamber through ductwork into the secondary chamber, where they are further burned at 2,000 degrees, along with spent decontamination solution that is sprayed into the chamber.

Since incinerating chemical agents produces industrial by-products known as acid mist and particulates, the exhaust gases must be scrubbed in a pollution abatement system and monitored before being released from the stack. The wet scrubber system uses water and chemicals to cool the gases and remove pollutants.

Operating the liquid incinerator generates a waste stream that is referred to as slag, a glassy-looking solid "rock' generated in the secondary chamber from the incineration process. The other major waste stream is the actual lining of the incinerator itself. Both the primary and secondary chambers, and the duct between them, are lined with a consumable insulating brick, called refractory brick. This lining helps keep the high temperatures and heat inside the furnace. Periodically, the lining starts to wear and break apart, at which time it is removed and replaced.



Nerve and blister agents will be destroyed in the liquid incinerator.



U.S. Chemical Agent and Munitions Stockpiles

Highlighting the U.S. Army's Chemical Demilitarization Program

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CMA

U.S. Army Chemical Materials Agency (Provisional)

www.cma.army.mil

Security remains high at Umatilla Chemical Depot

Military tactical combat forces now patrol the Umatilla Chemical Depot, along with the Army's civilian security force. General public tours have been curtailed, and the depot's mustard agent has been moved into even more secure storage.

"We made these changes after the Sept. 11 terrorist attacks to ensure we remain safe and secure while awaiting disposal of the stockpile," said Lt. Col. David Holliday, depot commander. "We have a great workforce and our procedures had been effective, but we recognized the threat to our nation had changed. Rest assured, the continued safety and security of the workforce and community remain my top priority."

Similar measures also have been applied at the nation's other seven stockpile sites, from Maryland to Utah.

In October 2001, the Army began its "Roving Osprey" program to move its "bulk storage ton containers" into even more secure storage areas at depots in Utah, Indiana, Arkansas and Maryland, as well as the Umatilla Chemical Depot. These containers are known as ton containers because they hold nearly a ton of liquid chemical warfare agent.

Some sites already had earth-covered, concrete-reinforced structures known as igloos available for ton-container storage. At the Aberdeen Proving Ground in Maryland, where mustard agent had been stored outside prior to Sept. 11, the Army built a new set of igloos for protection. At Umatilla, the Army completed the relocation of its mustard agent from a metal building into concrete igloos in March 2002.

Other security highlights include:

- The Umatilla Chemical Depot is closed to the general public. No one may enter without authorized permission. All visitors cleared for entry have passed an identification check and are escorted while inside the depot.
- The Army stores chemical warfare agents in fortified compounds within the 20,000-acre depot, using electronic surveillance, intrusion detection and other security devices and procedures to maximize protection.
- All employees must pass rigorous background checks, and employees directly involved in work related to chemical warfare agent must qualify for a special program to ensure each person who performs such duties meets the highest possible reliability standards.
- Along with adding National Guard soldiers to patrol the depot, the Army is increasing its civilian workforce to prepare for moving chemical weapons to the Umatilla Chemical Agent Disposal Facility.
- Depot security personnel remain in daily contact with local, state and federal law enforcement agencies.

Lt. Col. David "Doc" Holliday, shown with wife Myra, took command of the Umatilla Chemical Depot during a ceremony July 17.

A changing of the Guard

Texas Guardsmen head home; Oregon, Arkansas units arrive

"When we went to places such as Wal-Mart, people knew who we were and thanked us for what we have done. Some opened their homes to our soldiers, fed them and let them hang out."

—Capt. John Sturgill, Texas National Guard company commander

National Guardsmen from western Oregon and Arkansas have arrived to provide additional security at the Umatilla Chemical Depot, the fourth group to assist the depot since shortly after the Sept. 11, 2001, terrorist attacks.

Battalion commander Lt. Col. William Schutz, Capt. Michael Henderson (Arkansas unit) and Capt. Brian Riese (Oregon unit) command the approximately 200 soldiers in their new mission.

These units replace members of the Texas National Guard, who had provided additional security since August 2002. Previously, soldiers from Ft. Lewis, Wash., and the California National Guard served rotations at the depot.

Capt. John Sturgill, Texas National Guard company commander, said when they learned last summer they would be sent 2,000 miles to Oregon, "We told our wives and families we were going up north, but we didn't know exactly where Umatilla was. Nobody had ever heard of it."

In their civilian lives, the Guardsmen from the Dallas-Ft. Worth area are car mechanics, carpenters, truck drivers, police officers, firemen, special agents, students and businessmen. Many are married with young children.

Despite missing out on jobs and continuing education, and missing their families, the sacrifice was done gladly, Sturgill said. "They wanted to serve our country."

The Umatilla community has acknowledged the Guardsmen's contributions and many have shown their appreciation. "When we went to places such as Wal-Mart, people knew who we were and thanked us for what we have done," Sturgill said. "Some opened their homes to our soldiers, fed them and let them hang out."

Members of the Arkansas National Guard, shown at the Change of Command Ceremony July 17, have been assigned to provide additional security at the Umatilla Chemical Depot.

Capt. Riese of the Oregon National Guard said his company initially was called to active duty to train for Operation Iraqi Freedom. "The security mission at Umatilla was a mission change for us because of the quick pace of operations in Iraq," he said. "As a result, we are now performing the mission without a hitch here in our home state and supporting our home communities."

"My soldiers are glad to be able to contribute to making the country safer," said Capt. Henderson of the Arkansas National Guard. "We're also looking forward to establishing a positive presence in the community."

Employee reliability key to safety and security

Umatilla Chemical Depot employees directly involved with chemical warfare agents must qualify for a special program to ensure they meet the highest possible reliability standards.

Umatilla Chemical Agent Disposal Facility employees, including control room operators, must qualify for a special program to ensure reliability.

"Chemical warfare agents warrant extraordinary measures to ensure they are properly safeguarded against theft, loss, damage or unauthorized use," said Lt. Col. David Holliday, the depot's commander. "The Army's Personnel Reliability Program is a cornerstone of our safety program."

Many of the depot's 250 employees, including security guards, lab workers and ammunition handlers, are enrolled in the Personnel Reliability Program.

At the Umatilla Chemical Agent Disposal Facility, operated by the Washington Demilitarization Company, about half of the 750 employees must be enrolled. Program participants include those who work in security, handle chemical weapons before disposal, operate the lab, and oversee and maintain the automated equipment that dismantles and incinerates chemical weapons.

Modeled after a similar program for nuclear industry workers, the Army's reliability program looks for employees with physical competence, emotional stability, dependability and a positive attitude. All employees receive job history screening and must submit to random drug testing.

An employee may be disqualified from the program for drug and alcohol abuse, negligence in job performance and conviction or involvement in a serious incident, such as assault, financial irresponsibility, spousal abuse or even an inordinate number of traffic tickets. Other disqualifiers may include serious progressive illness affecting reliability or showing signs of aberrant behavior, such as lack of motivation, depression or suicide threat.

The program is part of the Army's ongoing effort to keep safety for its workforce and the surrounding communities at the forefront of its stockpile security mission.

Employees who monitor for chemical agent leaks are among those required to participate in the personnel reliability program.

"The Army's Personnel Reliability Program is a cornerstone of our safety program."

—Lt. Col. David Holliday

Reach

We want to hear from you...

The Umatilla Chemical Disposal Outreach Office serves as a clearinghouse for information about the chemical weapons stored at Umatilla Chemical Depot and the Army's plans for chemical weapons disposal. The Outreach Office has informational materials that can address your questions or concerns.

If you would like more information about the Umatilla Chemical Agent Disposal Facility, please telephone (541) 564-9339 or complete this form and mail it to:

Umatilla Chemical Disposal Outreach Office
190 East Main Street
Hermiston, OR 97838

Would you like to be added to our mailing list?
❑ Yes ❑ No

Would you like an information packet mailed to you?
❑ Yes ❑ No

If you answered yes to either of these questions, please complete the following:
Name_____
Address_____
City/State/Zip _____
Phone (optional) _____
E-mail (optional)_____

The Outreach Office schedules presentations that can be given to community groups, clubs, organizations, etc. If you know of a community group that might be interested, please complete the following:
Name_____
Address_____
City/State/Zip _____
Phone (optional) _____
E-mail (optional)_____

Umatilla Chemical Stockpile Outreach Office
c/o U.S. Army Chemical Materials Agency (Provisional)
Public Outreach and Information Office
E4585 Parrish Road
Aberdeen Proving Ground, MD 21010

Highlighting the U.S. Army's Chemical Demilitarization Program

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Fall 2003

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CMA
U.S. Army Chemical Materials Agency
www.cma.army.mil

The End of the Beginning

The year 2003 has had a series of firsts for the U.S. Army's chemical weapons disposal program. Notable among those firsts is the closure of the U.S. Army's first full-scale chemical weapons disposal facility, the Johnston Atoll Chemical Agent Disposal System (JACADS). The closure of JACADS is the end of the beginning.

File Photograph

JACADS during chemical weapons disposal operations.

The United States leads the world in disposing of chemical weapons. The Army began its mission of disposing of the entire U.S. stockpile of chemical weapons, with those located on a small island in the middle of the Pacific Ocean. Johnston Island is only a dot on the map. Though tiny, it is the site of great moments and historic firsts in the history of U.S. chemical weapons stockpile destruction.

From the time JACADS was built in 1986, thousands of men and women have lived and worked less than a mile from the chemical weapons stockpile. These dedicated men and women helped the Army achieve its goal of safe disposal of the stockpile.

On Nov. 29, 2000, JACADS completed disposal of the Johnston Island chemical weapons stockpile, and in early 2001, JACADS became the first U.S. facility to officially enter closure. This was accomplished while protecting the workers and the environment.

Johnston Island is home to hundreds of species of birds and fish. Working with the U.S. Environmental Protection Agency (EPA) and the U.S. Fish and Wildlife Service, JACADS has protected the environment while disposing of the chemical weapons. In fact, according to independent surveys and studies, the fish and bird populations are prospering. The coral reef that is Johnston Atoll is one of the few thriving reef systems in the world.

In May 2003, after finishing processing the secondary waste, the last furnace at JACADS was shut down—another first for JACADS and the program.

JACADS activities on Johnston Atoll will end in late 2003.

Because each of the eight disposal sites in the continental U.S. eventually will go through closure, program personnel are paying close attention to JACADS to ensure that valuable experience and insight from that site is shared.

Under state permit and federal law, the Umatilla Chemical Agent Disposal Facility can't be used for any other purpose than disposing of Umatilla's chemical weapons. The building where the weapons will be incinerated, the Munitions Demilitarization Building (MDB), must be destroyed once disposal is completed. Although the MDB must be demolished, the permit allows for the site's other buildings and facilities to be saved if the community Local Reuse Authority identifies a use for any of the structures and applies for a permit modification.

The year 2003 is also a year of firsts for several other U.S. stockpile sites. Incorporating lessons learned from handling and disposing of chemical agent at JACADS and the Tooele Chemical Agent Disposal Facility in Utah, the Aberdeen Chemical Agent Disposal Facility in Maryland and the Anniston Chemical Agent Disposal Facility in Alabama both started agent disposal operations, and the Tooele Chemical Agent Disposal Facility, which started operations in 1996, completed its agent changeover and started its disposal campaign for nerve agent VX.

Also in 2003, the Army completed construction of a neutralization facility for bulk agent stored at the Newport Chemical Depot in Indiana while responsibility for full-scale pilot testing of neutralization technologies to destroy the assembled

See End of the Beginning, page 4

U.S. Chemical Weapons Disposal

Since beginning chemical weapons disposal plans, the U.S. has eliminated more than 26 percent of its total chemical agent stockpile by weight and more than 39 percent by munitions count.

Chemical Materials Agency

Aberdeen Chemical Agent Disposal Facility, Md. – Neutralization operations began April 23, 2003. So far, workers have drained 90 bulk mustard agent containers, neutralized more than 152,000 pounds of agent and shipped 435,600 gallons of the neutralization byproduct, called hydrolysate, to the DuPont Secure Environmental Treatment facility in Deepwater, N.J., for biotreatment.

Anniston Chemical Agent Disposal Facility, Ala. – Disposal operations began Aug. 8, 2003. Currently, more than 45,700 gallons of GB nerve agent and 4,700 individual munitions have been destroyed. Agent trial burns in the liquid incinerator and the deactivation furnace are planned for November 2003.

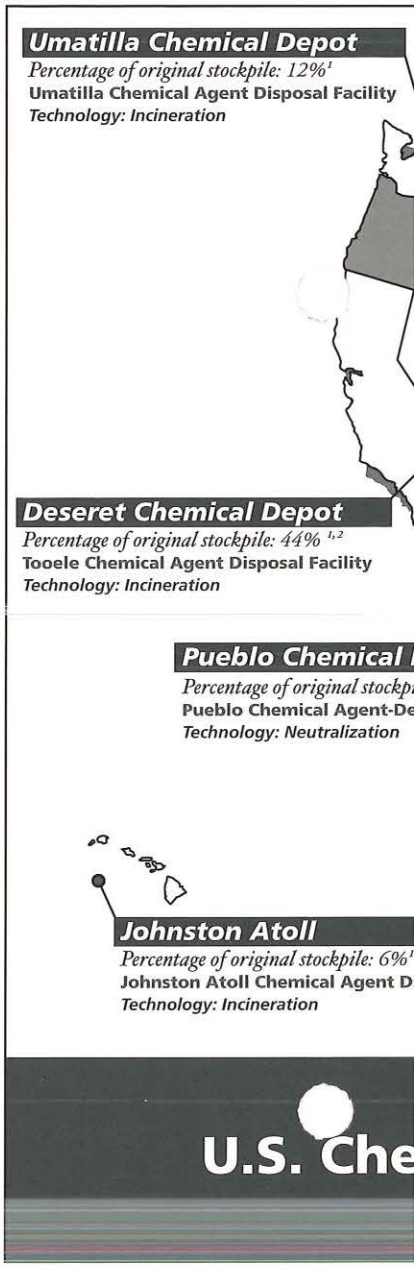
Johnston Atoll Chemical Agent Disposal System, Johnston Island – All chemical weapons stored on Johnston Island – more than 4,000,000 pounds of chemical agent and 412,000 individual munitions – were destroyed by Nov. 29, 2000. Closure and dismantling of the disposal facility began in January 2001. The closure workforce will be down to 24 personnel by the end of October 2003. Official closure (approval received from EPA) is expected to occur in 2004.

Newport Chemical Agent Disposal Facility, Ind. – Facility construction was completed in 2003. Newport is currently testing the facility and equipment. Disposal operations utilizing neutralization technology should start in 2004.

Pine Bluff Chemical Agent Disposal Facility, Ark. – Disposal facility and equipment testing began in 2003. As part of the testing process, the facility has started surrogate trial burns, using materials harder to destroy than actual agent, to prove the facility can meet the permitted destruction rates and efficiencies prior to entering into actual agent disposal. Agent disposal is expected to start in mid-2004. Site personnel currently have worked over 584 days without a lost workday injury.

Tooele Chemical Agent Disposal Facility, Utah – Agent disposal started Aug. 22, 1996. The entire Deseret Chemical Depot stockpile of nerve agent GB munitions has been destroyed. Now the stockpile of nerve agent VX munitions is being destroyed. Workers have destroyed more than 12,150,000 pounds of nerve agent and 935,700 individual munitions.

Umatilla Chemical Agent Disposal Facility, Ore. – The facility currently is performing testing and surrogate trial burns. The facility should start agent disposal in mid-2004.

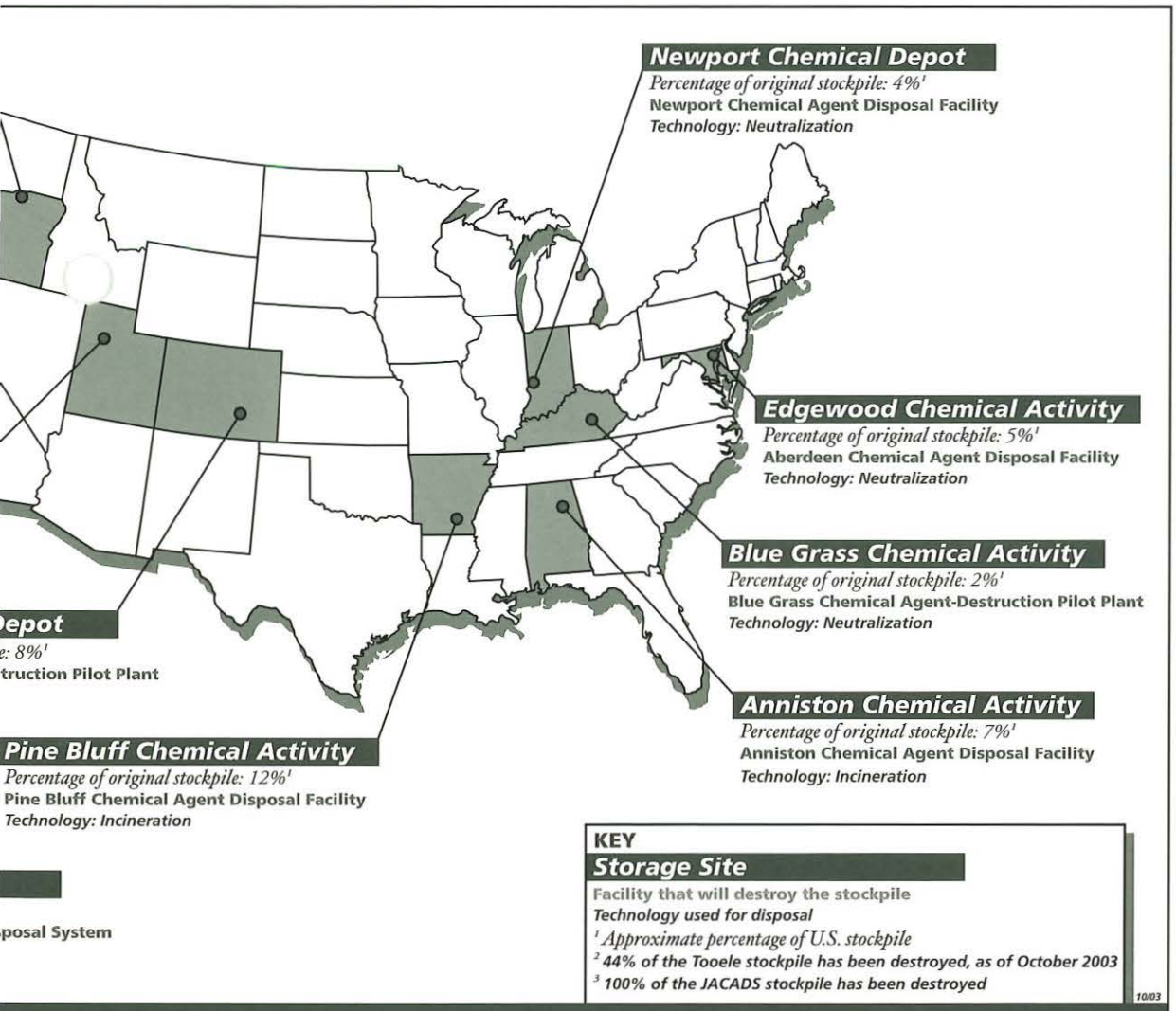


Programs Progress Update *(as of October 2003)*

Assembled Chemical Weapons Alternatives

Blue Grass Chemical Agent-Destruction Pilot Plant, Ky. – Neutralization followed by supercritical water oxidation will be used to destroy the chemical weapons stockpile. A contract for the design, construction, pilot testing, operation and closure of the facility was awarded in June 2003. A newly-formed Chemical Destruction Community Advisory Board will involve diverse community members in major issues associated with the plant, which is in the design phase.

Pueblo Chemical Agent-Destruction Pilot Plant, Colo. – In Colorado, neutralization followed by biotreatment will be used to destroy the chemical weapons stockpile. A contract for the design, construction, pilot testing, operations, and closure of the facility was awarded in 2002. The plant is currently in the design phase.



mical Agent and Munitions Stockpiles

End of the Beginning

Continued from page 1

Photo by H. Ward Maynard

Taking down the JACADS facility.

chemical weapons stockpiles at Pueblo Chemical Depot in Colorado and Blue Grass Army Depot in Kentucky was designated to the Department of Defense's Assembled Chemical Weapons Alternatives Program.

As 2003 closes out, all eight remaining chemical weapons stockpile sites are either in disposal operations, preparing to start operations or preparing to start construction of disposal facilities.

The experiences at operating sites are being used to improve the processes and facilities at the other sites as they prepare to come on-line. The Army constantly strives to update their proven safe disposal methods through research, new technology and the experiences of each disposal site. Working with agencies such as the EPA and the National Research Council, the Army ensures that the community and the environment are protected.

This year, 2003, has been a banner year for the Army's chemical weapons disposal program. The firsts have been many, and with JACADS completing closure, the beginning of U.S. chemical weapons disposal has truly come to an end.

WELL DONE!

The Army constantly strives to update their proven safe disposal methods through research, new technology and the experiences of each disposal site.

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Public Outreach and Information Office
E4585 Parrish Road
Aberdeen Proving Ground, MD 21010

U.S. Army Umatilla Chemical Depot

Public Affairs Office (541) 564-5312/5418

Yesterday, Today and Tomorrow – A Brief History

Military planners envisioned the U.S. Army Umatilla Ordnance Depot as a munitions and general supply storehouse years before it became a reality in 1941. However, the onslaught of World War II assured and then hastened the depot's construction.

In 1940 the Army selected a 16,000-acre plot of northeastern Oregon sage land for a new arsenal. Construction work began in January 1941, and 10 months later on Oct. 14, 1941, officials dedicated the depot and named it for the Umatilla Indian tribe.

Thirty-five million dollars and 7,000 workers transformed the prairie site into a complex of warehouses, munitions magazines, shops and office buildings connected by a web of paved roads and railroad tracks – essential elements for shipping and receiving.

Ordnance, as many local residents called it then, was ready when its first munitions shipment arrived Oct. 27, 1941. After the attack on Pearl Harbor six weeks later, Dec. 7, 1941, depot workers went on round-the-clock shifts to ship, receive, store and care for items.

In March 1944, six depot workers – five men and one woman – lost their lives when a conventional ammunition storage igloo exploded during a night shift. Today, a monument created from that igloo's largest remaining piece stands on the depot's parade field as a tribute to them.

During its now 60-year history, Umatilla grew to almost 20,000 acres and continued to support other war efforts, including the Korean Conflict, Vietnam, Grenada and Panama. More recently, Umatilla repeated its ammunition and general supply support role as Operation Desert Shield turned to Desert Storm. Workers shipped more than 10,000 tons of conventional ammunition during Desert Storm's first 18 days, with 223 shipments and 19,371 tons in all before the conflict ended.

Besides its conventional ammunition and general supply missions, the depot received a new mission in 1962 – receiving and storing chemical ammunition. Between 1962 and 1969, the depot received various types of ammunition with the chemical nerve agents VX and GB, and the mustard blister

agent HD, including 155MM and 8-inch projectiles; M55 rockets; M23 mines; 500- and 750-pound bombs; spray tanks; and, one-ton containers. Today the ammunition awaits destruction. Meanwhile the depot continues safely and securely storing it in storage structures commonly called "igloos," guarded round the clock by the depot's government civilian and military security force.

While igloos vary in size, most are 80 feet long, about 26 feet wide and almost 13 feet high. They are concrete structures with steel rebar, have steel doors, and are covered with a minimum of 2 feet of earth. Each igloo has a lightning protection system. Inside temperatures range from 50-60 degrees Fahrenheit year round.

In the mid-1980s, Congress directed the Army to dispose of the nation's chemical weapons stockpile. On April 25, 1997, the Army ratified the Chemical Weapons Convention, an international treaty mandating stockpile destruction.

In June 1997, construction started on the Umatilla Chemical Agent Disposal Facility – the facility that will destroy the depot's stockpiled chemical ammunition. Construction was substantially complete in August 2001. Systemization activities, such as certifying all systems components and testing the facilities four incinerators, are ongoing and will lead to disposal operations currently projected to start in the latter part of 2003.

Umatilla Chemical Depot was identified for realignment, and ultimate closure, in the 1988 Base Realignment and Closure Act. Therefore, during the early 1990s, depot workers shipped all the depot's conventional ammunition and general supplies to other U.S. depots and installations. Today the depot's sole remaining mission is to safely and securely store its chemical ammunition stockpile.

As part of its closure preparations, the depot has completed several cleanup projects, while others continue. The Army will clean up any depot environmental contamination resulting from activities here. Once these projects are complete, and the chemical munitions destroyed, depot property will be available for reuse by local communities. A Local Reuse Authority committee is already exploring future uses for depot property.

Today, safety and security remain the depot's highest priority as they have for more than 60 years – first and foremost for its workers, but also for the community and environment.

Umatilla Chemical Depot has and continues to play an integral and historical role in our nation's defense. Its employees – government and contractor alike – continue to be supportive community members and maintain the highest safety standards.

Current as of 02 Apr 03

FACT SHEET

Umatilla: Making Chemical Weapons History

Community pride and a small town spirit characterize the Hermiston, Ore., area. But did you know that this region also is playing a vital role in national and global affairs? Near Hermiston, the U.S. Army is making chemical weapons history at the Umatilla Chemical Agent Disposal Facility. This facility will destroy a large stockpile of chemical weapons that have been stored in the area for many years.

What are chemical weapons?

The weapons are sturdy containers of various types and sizes holding toxic chemical agents. Contrary to popular belief, chemical agents are not gases. Chemical agents are liquid in original form, however, they deteriorate into a thick, sludge-like substance over long periods of time.

Where are the weapons located?

The chemical weapons are located at the Umatilla Chemical Depot, a large military installation that opened in 1941. The depot's primary mission was to store and maintain a variety of military items, from blankets to ammunition. When needed during U.S. military actions, the depot then sent these items to soldiers in the field. Umatilla was given an additional mission in 1962 when the depot began storing chemical weapons. This stockpile of chemical weapons was never used and has remained in safe storage. The depot reorganized for closure from 1990 to 1994, and all conventional ammunition and supplies were shipped to other U.S. installations. Today, the chemical weapons are the only items still stored at the Umatilla Chemical Depot.

What is the Umatilla Chemical Agent Disposal Facility?

The Umatilla Chemical Agent Disposal Facility is a state-of-the-art incineration facility designed to dispose of the chemical weapons stored at the Umatilla Chemical Depot safely and efficiently. Together with its support buildings, the facility totals more than 200,000 square feet.

How will the weapons be destroyed?

The Umatilla facility will incinerate the weapons. In using this technology, robotic equipment disassembles the weapons so that each component can be treated in a separate incinerator. Specifically, chemical agent will be drained from the weapon and burned in a liquid incinerator, while the weapon's explosive components will be destroyed in a special deactivation furnace. You can learn more about incineration in the fact sheet entitled *"Incineration: A Safe, Proven Disposal Process."*

Who will destroy the weapons?

The Army's Chemical Weapons Agency (CMA) is responsible for safely disposing of the stockpile. In 1997, the Army awarded Washington Demilitarization Company a contract to build, test, operate and close Umatilla's facility. Many other organizations

For more information,
contact the
Public Outreach and
Information Office of the
Chemical Materials
Agency
1(800) 488-0648 or
www.cma.army.mil

or visit the
Umatilla
Chemical Disposal
Outreach Office
190 East Main Street
Hermiston, Oregon 97838
Phone: (541) 564-9339
Fax: (541) 564-9532

OVER ▶

Umatilla: Making Chemical Weapons History (continued)

work in partnership with the Army to complete this mission successfully. Among these are the Oregon Department of Environmental Quality and the U.S. Environmental Protection Agency, Region X. Some of your family members, friends or neighbors probably work on this important project.

How long will it take to destroy the weapons?

Construction of the facility lasted four years until its completion in May 2001. A period of testing, called systemization, is underway and will continue until operations begin. The facility will conduct disposal activities for several years. A period to close and dismantle the facility and ensure the cleanliness of the surrounding areas will follow.

How will the environment be protected?

The permits for the facility, which the state's Environmental Quality Commission approved, were written based on studies conducted locally. This ensures that operations at the disposal facility are protective of local citizens and the Hermiston area environment. Additionally, the Umatilla project has a special monitoring program that examines the air, water, soil, plants, insects and small mammals in the area. These studies are conducted as far away as Pendelton and the Tri-Cities. This monitoring is intended to help ensure that the disposal facility will have no harmful impact on people or the surrounding areas.

What will happen to the facility and the depot once the weapons are gone?

Once incineration is completed, the disposal facility will be dismantled. The depot will be closed, and the land will be made available to the local communities.

What is the Citizens' Advisory Commission?

This commission, often called the CAC for short, is made up of nine members appointed by the governor of Oregon. Seven are local citizens and two are representatives of state agencies that work closely with the chemical weapons disposal program. The purpose of this organization is to provide a link between the community and the Army. The members do not make program decisions, but they are encouraged to provide guidance and recommendations. The commission provides a local perspective to the Army so that it may manage the chemical disposal program in the most positive way for the community. The Oregon CAC holds regular meetings every third Thursday of the month. The meetings are announced in local papers, and people on the outreach office's mailing list receive notices of upcoming meetings. The meetings are open to the public, and you are encouraged to attend. Most meetings also include time for public input and questions.

How can I contact the CAC?

For information on the current issues the commission is considering, or to find out the upcoming meeting schedule, please call Robert Flourney, CAC chairman, at (541) 922-2574.

How can I learn more?

The Army opened the Umatilla Chemical Disposal Outreach Office in 1996 as a convenient "one-stop" source of information about the chemical disposal program. The office staff works closely with public affairs experts from the depot, the disposal facility and your local emergency preparedness office to ensure a comprehensive public involvement and outreach program. The office has a large repository of fact sheets, brochures, exhibits and technical studies for you to peruse, but this is just the beginning of what it offers. The outreach staff frequently can be seen in the Hermiston area giving presentations, holding public meetings, distributing informational materials and attending community events.

How can I contact the outreach office?

You can contact the outreach office staff at (541) 564-9339. You also are invited to visit the office at 190 East Main Street in Hermiston. The office is open Monday through Friday from 8:30 a.m. to 5 p.m. Additional office hours are available upon request.

Incineration: A Safe, Proven Disposal Process

Since 1990, the U.S. Army has used incineration safely and successfully to dispose of the country's stockpile of chemical nerve and blister agent. To date, more than 16 million pounds of chemical agent have been destroyed.

The Johnston Atoll Chemical Agent Disposal System (JACADS) began incineration operations in 1990 and destroyed its last chemical agent munition in November 2000. The Army has an incineration facility operating in Utah, and facilities preparing for operations in Alabama, Arkansas and Oregon.

The chemical weapons disposal facilities are engineered with specially designed weapons handling processes, remote-controlled incineration and disposal equipment, complex control systems and detailed procedures and training to protect the workers, environment and the public.

The Army's incineration processes are based on years of experience and advances that ensure safe disposal of the various nerve and blister agents, munitions and containers. The Environmental Protection Agency publicly stated that emissions from JACADS are the cleanest of any incinerator in the United States.

Safety Features. The Army's incineration process includes the following safety features:

- ***Stringent emission standards.*** The Army monitors incinerator stack emissions at levels much stricter than regulatory standards. In turn, the regulatory standards are much lower than amounts that could cause public health problems. Monitoring at higher levels than required demonstrates the Army's commitment to safe operations. In addition, these monitoring levels were established with the assistance and approval of the Department of Health and Human Services' Centers for Disease Control and the Surgeon General's Office.
- ***Higher temperatures to ensure complete agent destruction.*** Army incinerators operate at significantly higher temperatures and for longer periods of time than commercial hazardous waste incinerators. This ensures complete destruction of chemical agent and total decontamination of the casings and munition pieces.

Gases from the incinerator furnaces pass through a pollution abatement or removal system to further cleanse emissions. As a final safeguard, the emissions are monitored to ensure complete destruction of agent.

- ***Automatic shutdown if irregularities are detected.*** Computer programs in the control system monitor the process for such things as incinerator temperatures, airflow rates and pressures. These programs automatically shut down the feeding of agent to the incinerators if process irregularities are detected. Agent processing is not restarted until corrective actions have been taken and approved by oversight agencies.
- ***Additional safety features.*** Other safety features of the incineration facilities include:
  - Air pressure inside the facility is lower than outside air pressure. Air is drawn from outside the facility through the outer rooms and into the most toxic areas. Air from the toxic areas is drawn out of the plant through a series of charcoal filters. This ensures that agent vapors are contained and that only clean ventilation air is released to the environment.
  - Explosives and rocket propellants are removed or processed only in special

For more information, contact the Public Outreach and Information Office of the Chemical Materials Agency (Provisional) **1(800) 488-0648** or **www.cma.army.mil**

OVER ▶

Incineration: A Safe, Proven Disposal Process

automated explosion containment rooms designed to contain an unlikely explosion.

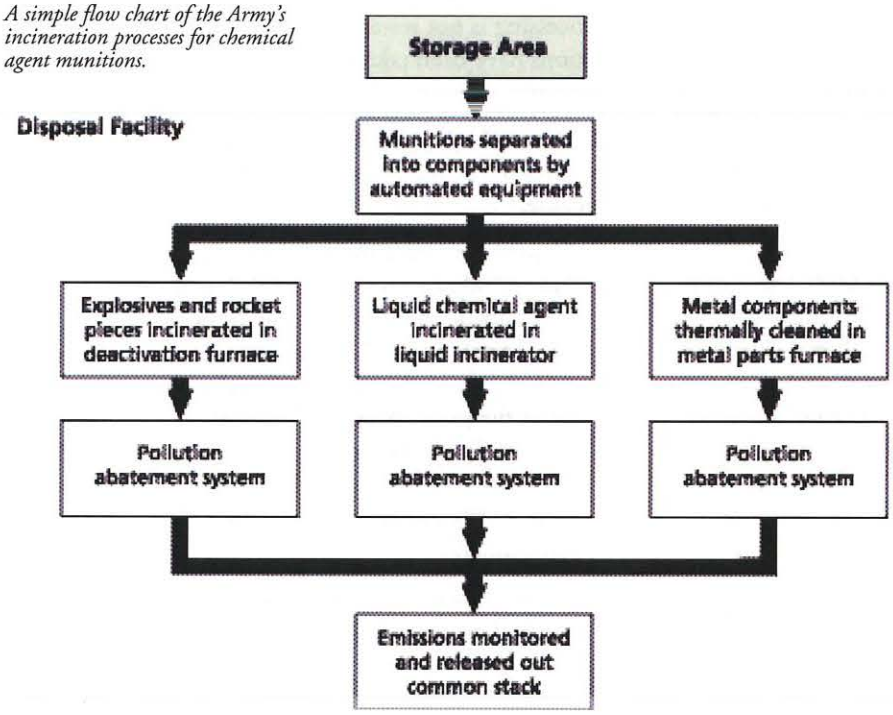
- Agent is drained from the munitions into storage tanks until it is incinerated. The storage tanks are designed to contain the chemical agent in the event of an earthquake.

Lessons Learned. The Army has a formal lessons learned program to collect improvements made at one site and ensure they are considered for use at all disposal sites. Lessons learned while operating the first disposal plant have benefited the other facilities. These benefits include special equipment and handling procedures for chemical landmines, techniques for dealing with unusual conditions caused by deteriorating chemical weapons, techniques for working in protective equipment and overall design and process improvements in the facility itself.

Independent Oversight. Congress, the Department of State, Department of Defense, Centers for Disease Control and Prevention, U.S. Environmental Protection Agency, National Academy of Sciences' National Research Council, Organisation for the Prohibition of Chemical Weapons and appropriate state environmental agencies provide formal oversight of the Army's incineration program. The incineration processes are backed by years of experience and have been scrutinized closely by the public; local, state and federal government officials; the aforementioned oversight agencies; and the court systems. To date, incineration is the only full-scale technology demonstrated in real-time operations to safely treat the complete munition—agent, explosives, metal pieces and packaging material.

For more information, please call the Army's Public Outreach and Information Office at (800) 488-0648.

A simple flow chart of the Army's incineration processes for chemical agent munitions.



Umatilla Chemical Agent Disposal Facility

Disposal Process

1

Chemical munitions are moved from the storage igloos to the facility in Enhanced On-Site Containers (EONCs). These containers have been designed to protect the munitions against external forces.

2

Trucks are unloaded and the EONCs enter the facility's container handling building on a conveyor system.

3

The plant is equipped with a cascading ventilation system and carbon filters, ensuring no chemical agent is released into the environment.

4

In the explosive containment room, (equipped with 28-inch reinforced concrete walls) explosive components are removed from the munition bodies. Rockets with their explosive components are cut into eight pieces and fed into the deactivation furnace system.

5

The deactivation furnace system (DFS) destroys the explosive components using natural gas. Temperature is about 1,050°F. Residue is collected and disposed of at a hazardous waste facility. An afterburner and pollution abatement system destroy and clean DFS gases before they are released.

6

In the munitions processing bay, liquid agent is drained from the munition bodies.

7

Drained chemical agent is destroyed in a liquid incinerator (LIC) using natural gas. Temperature is about 2,700°F. Chemical agent destruction occurs at 700°F. An afterburner and pollution abatement system destroy and clean LIC gases before they are released.

8

Empty munition casings are thermally decontaminated in the metal parts furnace (MPF). Temperature is about 1,400– 1,600°F. The decontaminated metal is recycled by smelting or disposed of at a hazardous waste landfill. An afterburner and pollution abatement system destroy and clean MPF gases before they are released.

Umatilla Chemical Disposal Outreach Office - 190 East Main Street/Hermiston, OR 97838 - (541) 564-9339

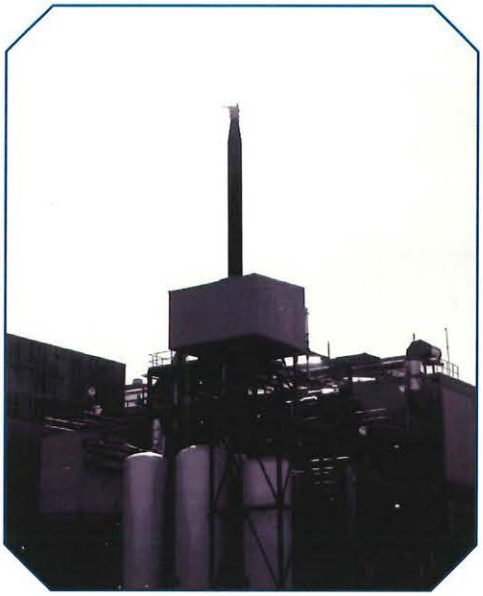
CMA

FACT SHEET

Stack Emissions

Monitoring stack air emissions at chemical weapons disposal facilities is an important part of protecting the community, workers, and the environment. The Army is committed to safely disposing of and eliminating chemical weapons at stockpile sites across the United States. During the disposal of chemical weapons, the Army complies with federal and state regulations and will do so throughout the life of the Chemical Stockpile Disposal Project.

A number of environmental regulations impact air emissions at the chemical weapons disposal facilities. These include the Resource Conservation and Recovery Act, the Clean Air Act, the Clean Water Act, the Emergency Planning and Community Right-to-Know Act, and the Toxic Substances Control Act, as well as associated state regulations. The Army has designed and constructed its facilities to meet or exceed the standards in these regulations. In fact, the Army's process destroys 99.9999 percent or more of the agent before the incinerator exhaust exits the stack.



The Army has carefully designed its chemical weapons disposal facilities to be fully protective of human health and the environment. Prior to being discharged to the environment, process exhaust gases are cooled and cleaned through the pollution abatement system and then are passed through a series of six charcoal filters. This removes any agent particles that may be present. The first filter can reduce the agent concentration in this air stream to a negligible level before it reaches the second filter. This is an estimated 400,000 times reduction, with similar reductions for each of the five successive filters.

To provide maximum safety to workers, automatic air monitoring systems provide continuous monitoring of the filters' efficiency. The monitoring systems are capable of detecting agent levels that are less than federal and state requirements. No agent has ever been detected beyond the second filter bed.

Disposal systems used by the Army are typically more effective than municipal incinerators in reducing emissions of dioxins and furans. In fact, according to the Centers for Disease Control and Prevention, cigarette smoke and diesel truck exhaust contain far greater concentrations of chlorinated dioxins than emissions from the disposal facilities on Johnston Island and Tooele, Utah.

For more information,
contact the
Public Outreach and
Information Office of the
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1(800) 488-0648 or
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October 2002

Markets

- Threat reduction.
- Design, build, operate and close chemical and nuclear weapons demilitarization facilities.
- Weapons delivery systems disarmament.
- Infrastructure services for the Departments of Defense and State.
- Classified and unclassified engineering, design, procurement and construction.
- Environmental remediation.
- Waste handling and storage.
- Facility operation.
- Homeland security.
- Threat analysis and mitigation.

Differentiators

- World's leader in chemical weapons destruction.
- 5 of 6 active design-build-operate-close contracts for U.S. chemical weapons disposal.
- Completed nation's first chemical weapons destruction program – Johnston Atoll, Pacific Ocean.
- Leading ICBM destruction contractor in the Ukraine (165 missiles destroyed).
- Expanding to similar role in Russia with five demilitarization task contracts.

Indicative Projects

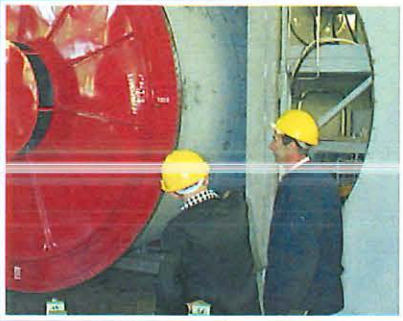
Johnston Atoll Chemical Agent Disposal System, Pacific Ocean – The only chemical demilitarization plant to process its entire inventory of chemical weapons. This **$1.4-billion** program has processed 2,031 tons of chemical agent in projectiles, mortars, containers, cartridges, rockets, mines and bombs. JACADS is the only such plant to be operating in its closure phase which is expected to last an additional two years.

Anniston Chemical Agent Disposal Facility, Anniston, Alabama – With construction essentially complete, ANCDF is in the early stages of start-up for chemical agent operations. A **$1.2-billion** program, ANCDF will destroy 2,254 tons of chemical agent stored in cartridges, projectiles, containers, rockets and mines. With about nine-years of work remaining, Washington Group also will be responsible for closure when the weapons campaign is completed.

Umatilla Chemical Agent Disposal Facility, Umatilla, Oregon – Constructed by Washington Group and currently in early stages of start-up to begin destroying 3,717 tons of agent-filled rockets, bombs, spray tanks, mines and containers. Washington Group also will operate and maintain the facility and be responsible for its closure – tasks that are expected to take another nine years The **$1.4-billion** project is the second largest construction project in the Pacific Northwest.

Pine Bluff Chemical Agent Disposal Facility, Pine Bluff, Arkansas – Substantial completion of construction was reached Aug. 24, 2002, 30 days ahead of schedule. The **$1.2-billion** facility has begun start-up activities and is expected to begin chemical agent weapons destruction in 2004. It will destroy 3,850 tons of agent stored in rockets, mines and containers. Washington Group is responsible for all phases of the project including operations, maintenance and closure, tasks that should last another 10 years.

Pueblo Chemical Agent Disposal Facility, Pueblo, Colorado – This new contract was awarded to a Washington Group-Bechtel team to design, construct, start-up, operate and close the first chemical weapons demilitarization facility using a chemical neutralization technology. All previous weapons demilitarization plants have utilized incinerators to neutralize mines, projectiles and other weaponry containing chemical agent. Half of the scope of this 10-year, **$800-million** project belongs t Washington Group.



Missile demilitarization in the former Soviet Union – For the past eight years, Washington Group has been awarded tasks from the Defense Threat Reduction Agency to destroy or disassemble intercontinental ballistic missiles in the Ukraine and Russia. The tasks – which have been underway for eight years – also include designing, building and operating facilities to store or destroy those missiles and their fuel. To date 165 missiles have been disassembled or destroyed with contracts in place to destroy 56 others. The current backlog of work involves about **$250 million** worth of tasks.

The Deactivation Furnace

The deactivation furnace system destroys solid materials such as rockets, explosives and land mines. Other items sent to the deactivation furnace include fiberglass tubes used to store rockets, explosive waste materials, maintenance waste and other small metal or non-metal items.

Wastes are fed into the deactivation furnace through chutes connected to the explosive containment rooms, where munitions such as M55 rockets are drained and dismantled. The M55 rockets, which contain explosives and propellants, are cut into eight pieces before being fed into the furnace.

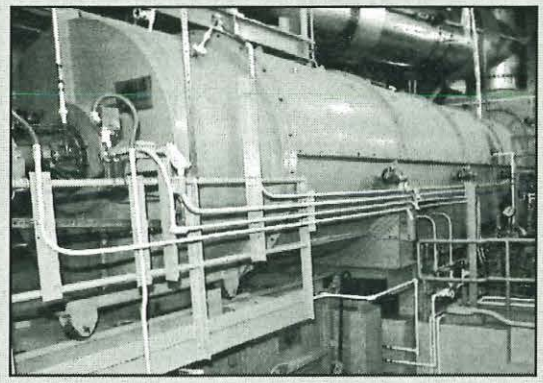
The deactivation furnace is a rotary kiln that slowly rotates to move wastes through the barrel. An internal spiral baffle that looks like threads of a screw helps keep the wastes separated. The items are heated and ignite as they enter the furnace and burn completely as they spiral through the kiln.

The burner at the discharge end maintains a minimum temperature of 1,050 degrees.

At the discharge end, the metal and ash residue drop onto a heated discharge conveyor where they are maintained at a minimum temperature of 1,000 degrees for at least 15 minutes to ensure complete decontamination. The hot items are then discharged into bins.

Combustion gases from the kiln process flow through a cyclone where the gases swirl to remove fiberglass pieces and other ash. The cyclone causes the waste particles to separate from the gas and drop into a collection hopper. The ash is then packed into drums for disposal.

After passing through the cyclone, the gases flow to a secondary combustion chamber—an afterburner—to ensure agent destruction. Temperatures in the afterburner are maintained at a minimum of 2,000 degrees. The exhaust gases then flow through the pollution abatement system for removal of any remaining pollutants prior to leaving the stack. All wastes, including residues from any of the furnaces, must be certified as agent-free prior to off-site shipment.



The deactivation furnace will destroy explosive materials.

The Metal Parts Furnace

The metal parts furnace decontaminates artillery shells, bomb casings and other metal containers by burning away residual chemical agent.

The casings have had explosives and propellants removed and liquid chemical agent drained during the demilitarization process. Chemical agent residue, however, remains in the munitions. Other items fed into the furnace include piping and equipment replaced during maintenance activities. Any remaining agent inside the metal items or on their surfaces is destroyed by combustion.

The wastes are brought from the munitions processing bay, where the munitions are dismantled. The wastes are put in a waste incineration container and fed into the furnace through airlock doors.

The furnace operates with three distinct burner zones connected by roller conveyors. It heats to between 1,450 and 1,600 degrees, depending on the munitions or material being processed. The metal parts oscillate within each zone and are moved to successive zones by timers set for each item.

Exhaust gases will be further heated in an afterburner to 2,000 degrees. This process destroys any remaining traces of agent before the exhaust gases enter the pollution abatement system. The scrap metal then enters an airlock where it is tested for any remaining agent before being released for scrap handling.

Reach

We want to hear from you...

The Umatilla Chemical Disposal Outreach Office serves as a clearinghouse for information about the chemical weapons stored at Umatilla Chemical Depot and the Army's plans for chemical weapons disposal. The outreach office has informational materials that can address your questions or concerns.

If you would like more information about the Umatilla Chemical Agent Disposal Facility, please telephone (541) 564-9339 or complete this form and mail it to:

Umatilla Chemical Disposal Outreach Office
190 East Main Street
Hermiston, OR 97838

Would you like to be added to our mailing list?

❑ Yes ❑ No

Would you like an information packet mailed to you?

❑ Yes ❑ No

If you answered yes to either of these questions, please complete the following:

Name_____
Address_____
City/State/Zip _____
Phone (optional) _____
E-mail (optional)_____

The Outreach Office schedules presentations that can be given to community groups, clubs, organizations, etc. If you know of a community group that might be interested, please complete the following:

Name_____
Address_____
City/State/Zip _____
Phone (optional) _____
E-mail (optional)_____

Umatilla Chemical Disposal Outreach Office
190 East Main Street
Hermiston, OR 97838

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

In the Matter of the Application of the United States Army for a Permit to Construct and Operate a Chemical Weapons Demilitarization Facility at the Umatilla Chemical Depot.	)))))	FINDINGS AND CONCLUSIONS OF THE COMMISSION AND ORDER

General Background Findings

1. This is a proceeding in which the United States Army (the Army) seeks a hazardous waste treatment permit for construction and operation of incinerator facilities to destroy chemical weapons stored at the Umatilla Chemical Depot. The Commission has jurisdiction pursuant to ORS 466.005 *et seq.*

2. The Umatilla Chemical Depot is a facility owned and operated by the Department of the Army. The identification number of this facility is OR6 213 820 917.

3. The Umatilla Chemical Depot encompasses approximately 20,000 acres in Morrow and Umatilla counties.

4. In September 1994, the Umatilla Chemical Depot finished destruction or removal of all conventional munitions from storage, leaving only chemical agent in storage.

5. The Umatilla Chemical Depot is currently listed for base realignment and closure following the completion of its current mission to destroy the chemical agent stockpile.

6. From 1962 to 1969 the Umatilla Chemical Depot received chemical warfare munitions for storage that included the nerve agents GB (also known as Sarin) and VX, and the blister agent HD (also known as mustard).

7. From 1969 to the present, the Umatilla Chemical Depot has continued to store chemical agent munitions termed "stockpile" munitions.

8. The Department of Defense Authorization Act of 1986 (Public Law 99-145) directed the Secretary of Defense to develop a program for the disposal of all stockpile chemical agent munitions. The law required that the stockpile be destroyed by September 30, 1994. The Army subsequently proceeded with a pilot agent incineration program at the mid-Pacific Johnston Atoll.

9. In response to Public Law 99-145 the Army established the Office of the Program Manager for Chemical Demilitarization with the responsibility to destroy the stockpile.

10. Public Law 99-145 also required that the Secretary of the Army compare and contrast the advantages and disadvantages of disposing of the chemical agents and munitions at stockpile storage locations, regional disposal centers, or a national disposal center, either inside or outside the continental United States. The Chemical Stockpile Disposal Program (CSDP) is the name of the program to address stockpile destruction.

11. The CSDP program was subjected to review under the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190, as amended). The Army proceeded with the NEPA process by first addressing stockpile destruction on a national level (e.g., whether to proceed with regional or onsite treatment) and then with site specific review. Analysis of risks of treatment

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alternatives and risks of storage were included as part of the Army's programmatic NEPA review.

12. The Army issued a FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT in January 1988. In February 1988, the Army promulgated its Record of Decision (53 Fed Reg 5816-5817) identifying on-site incineration at the continental stockpile sites as the preferred alternative for disposal of the nation's chemical weapons stockpile.

13. In September 1988, Congress passed Public Law 100-456 which ordered an evaluation period known as "Operation Verification Testing" (OVT) at the Johnston Atoll Chemical Agent Disposal System (JACADS) incineration facility to demonstrate safety and effectiveness before testing at continental stockpile sites. This law also extended the deadline for the elimination of the stockpile to April 30, 1997.

14. In February 1990, the Army completed the final PHASE 1 ENVIRONMENTAL REPORT FOR DISPOSAL OF CHEMICAL AGENTS AND MUNITIONS STORED AT UMATILLA DEPOT ACTIVITY, HERMISTON, OREGON. This report was pursuant to NEPA and was for site specific review of onsite treatment at Umatilla. The PHASE I ENVIRONMENTAL REPORT concurred that onsite treatment was appropriate for the Umatilla Chemical Depot and recommended proceeding with an Environmental Impact Statement for onsite incineration. Since this report was issued, the Army has proceeded with onsite review and has issued additional Environmental Impact Analyses. A final Environmental Impact

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Statement was issued May 1996 and a "Revised Final Environmental Impact Statement" was issued November 1996.

15. In December 1991, Congress passed Public Law 102-190 which extended the stockpile destruction date to July 31, 1999.

16. In October 1992, Congress passed Public Law 102-484 which extended the stockpile destruction deadline to December 31, 2004; directed the Army to submit a report to Congress on potential alternatives to incineration; established citizen advisory commissions in Kentucky, Indiana, and Maryland; and allowed for establishment of citizen commissions at other stockpile sites if requested by the Governor of that State. (The Governor of Oregon appointed a Citizens Demilitarization Advisory Committee for the Umatilla Chemical Depot on August 6, 1993.)

17. The Army, since 1966, has requested independent review from the National Academy of Sciences of various issues regarding chemical agent demilitarization. The National Academy of Sciences, acting on a request by the Army in 1987, formed a standing committee from its National Research Council (NRC) to review technical issues on chemical demilitarization. In March 1991, the NRC committee recommended to the Army review of alternative technologies for the chemical stockpile disposal and formulation of recommendations. The Army concurred. This NRC review culminated in a 1994 NRC report, RECOMMENDATIONS FOR THE DISPOSAL OF CHEMICAL AGENTS AND MUNITIONS, that recommended the Army's baseline incineration program be continued without delay (but with neutralization study for the two low-volume bulk sites at

Aberdeen, Maryland and Newport, Indiana). The report also recommended adding carbon filters to the proposed incinerators' pollution abatement systems. The Army concurred with the NRC's recommendation to add the carbon filters. In 1994 the Army submitted to Congress the agent destruction alternatives report, U.S. ARMY'S ALTERNATIVE DEMILITARIZATION TECHNOLOGY REPORT TO CONGRESS., required by Public Law 102-484 which included an analysis of information from the NRC report.

18. The 1994 NRC report also recommended that site-specific risk analyses of storage be conducted to confirm the conclusions of the "Final Programmatic Environmental Impact Statement" and confirm the wisdom in proceeding promptly with stockpile disposal. In response to this recommendation, the Army directed that a quantitative risk assessment be developed for the Umatilla Chemical Depot. The Army issued a report entitled, UMATILLA CHEMICAL AGENT DISPOSAL FACILITY PHASE 1 QUANTITATIVE RISK ASSESSMENT, in September 1996. The report concluded that the risk of disposal processing is significantly less than the risk of continued storage.

19. The Army has continued analysis of the issue of examining alternative technologies for the two low-level bulk agent sites. The Army solicited alternative technology proposals for the two low-volume bulk sites in August 1995, and requested the NRC to re-review and evaluate the status of a limited number of maturing alternative technologies. The NRC issued its report entitled REVIEW AND EVALUATION OF ALTERNATIVE CHEMICAL DISPOSAL TECHNOLOGIES

in October 1996. The NRC report recommended neutralization for the bulk sites located at Aberdeen, Maryland and Newport, Indiana. This report reviewed treatment for bulk liquid agents and metal containers and did not review possible alternative technologies for energetic (i.e., explosive) materials or munition casings such as those at Umatilla.

20. Congress passed Public Law 104-201 (Defense Authorization Act for Fiscal Year 1997) containing a requirement that a report be submitted by the Army to Congress that reviews alternative technologies for the disposal of assembled chemical munitions. This report must be submitted by December 31, 1997. The Army has informed the Governor of Oregon that because the risk of continued storage of agent at Umatilla is substantially greater than risks from incineration, and because incineration at this time is the only mature technology available, it desires to pursue the hazardous waste treatment permit for baseline incineration at Umatilla.

21. The U.S. and 130 other nations signed what is called the Chemical Weapons Convention in January 1993. The Senate, however, has not ratified this treaty. The treaty would mandate an international timetable to completely destroy chemical agent stockpiles, and would require irreversible destruction.

General Findings Pertaining to Permit Development

22. Anticipating the need to destroy the agent stockpile in accordance with Public Law 99-145, in September 1986 the Army submitted its first permit application to the Oregon Department

of Environmental Quality (Department) for a hazardous waste treatment permit for the construction and operation of a new hazardous waste incineration facility at the Umatilla Chemical Depot pursuant to 40 CFR § 270.10(a), adopted by OAR 340-100-002, and pursuant to ORS § 466.055, *et seq.*

23. In February 1987, the Department issued to the Army a first notice of deficiency (NOD) on the Umatilla hazardous waste treatment permit application. The NOD was issued pursuant to 40 CFR § 124.3 which is adopted by Oregon rule OAR 340-100-002. The NOD listed 57 issues to be addressed before the application could be considered complete.

24. In March 1987, the Army submitted its first Air Contaminant Discharge Permit application to the Department in accordance with OAR 340-28-1720. Pursuant to OAR 340-28-1900 the Army may not build and operate the facility until an Air Contaminant Discharge Permit is issued by the Department.

25. The Army responded in June 1987 to the Department's first NOD by updating the permit application.

26. During 1987 and 1988, the Department issued to the Army a second NOD for the Umatilla hazardous waste treatment permit application. The NOD listed 96 issues to be addressed by the applicant in order for the application to be considered complete.

27. In October 1990, the Army responded to the Department's second NOD for the Umatilla hazardous waste treatment permit application.

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28. In May 1991, the Army re-submitted the application to the Department for an air contaminant discharge permit for the Umatilla Chemical Depot.

29. In January 1992, the Department issued to the Army a third NOD on the Umatilla hazardous waste treatment permit application. The third NOD listed 60 issues to be addressed.

30. In November 1992, the Army responded to the Department's third NOD on the hazardous waste treatment permit application.

31. In April 1993, the Department issued to the Army a fourth NOD on the hazardous waste treatment permit application. The fourth NOD listed 19 issues to be addressed.

32. In June 1993, the Army responded to the Department's fourth NOD.

33. In July 1993, the Department and the Army entered into an Intergovernmental Cooperative Agreement for the continued review and processing of the hazardous waste treatment permit application.

34. In March 1994, the Department issued to the Army a fifth NOD on the Umatilla hazardous waste treatment permit application. The fifth NOD listed 19 issues to be addressed.

35. In April 1994, the Department opened a regional field office in Hermiston, Oregon staffed by a DEQ employee designated as the Umatilla permits coordinator. This position has had the primary duty of providing the public with information regarding

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the processing of the hazardous waste and air quality permit decisions.

36. On March 6, 1995, the Army responded to the Department's fifth NOD with an updated hazardous waste treatment permit application dated February 1995.

37. In August 1995, the Army submitted an updated application to the Department for an air contaminant discharge permit for the Umatilla Chemical Depot.

38. The Department requested from the Army further information in accordance with 40 CFR 124.3 (adopted by OAR § 340-100-002) on March 6, 1996. In accordance with 40 CFR § 124.3, the Army responded to the information request on March 21, 1996 with updated pages for the hazardous waste treatment permit application.

General Findings Pertaining to Risk Assessment Conducted by the Department

39. During the Department's technical review of the hazardous waste treatment permit application, the U.S. Environmental Protection Agency (EPA) issued the DRAFT NATIONAL HAZARDOUS WASTE COMBUSTION STRATEGY (COMBUSTION STRATEGY) in May 1993. The COMBUSTION STRATEGY adopted a national policy requiring a risk assessment on the potential emissions from a hazardous waste incinerator before issuance of a draft hazardous waste treatment permit for public comment. The COMBUSTION STRATEGY also stated a preference for the regulatory agency issuing the permit (i.e., EPA or the State review agency) to conduct the risk assessment.

40. In March 1994, the Department stated in its fifth NOD that the Department would be conducting a risk assessment in accordance with the COMBUSTION STRATEGY.

41. In April 1994, EPA issued guidance on how to conduct a risk assessment for hazardous waste incinerators.

42. In October 1994, the Department began work with its contractor, Ecology and Environment, Inc., to conduct a risk assessment in accordance with the national combustion strategy following the guidance issued by EPA.

43. On April 5, 1996, the Department issued a draft hazardous waste treatment permit and a DRAFT PRE-TRIAL BURN RISK ASSESSMENT FOR THE PROPOSED UMATILLA CHEMICAL DEMILITARIZATION FACILITY. The risk assessment concluded that there would be no adverse effects on either public health or the environment from the operations of the Umatilla incinerator facility.

General Findings Pertaining to Draft Permit and Public Participation

44. Pursuant to 40 CFR 124.10 (adopted by OAR § 340-100-002), the Department issued for public comment a draft hazardous waste treatment permit for the Umatilla Chemical Depot on April 5, 1966. In accordance with 40 CFR 124.8 (adopted by OAR § 340-100-002), the Department also issued a Fact Sheet which summarized the draft hazardous waste treatment permit. In accordance with 40 CFR 124.10 (adopted by OAR § 340-100-002), the Department sent out to the Umatilla Chemical Depot mailing list a

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Public Notice soliciting comments on the draft hazardous waste treatment permit.

45. In accordance with OAR 340-28-1900, the Department issued a draft air contaminant discharge permit for public comment on April 5, 1996. The Department also developed an AIR CONTAMINANT DISCHARGE PERMIT APPLICATION REVIEW REPORT, in accordance with Department policy, which summarizes the Department's review of the air application and rationale for setting draft air quality permit conditions. In accordance with OAR 340-28-1710, the Department issued a Public Notice to the Umatilla Chemical Depot mailing list soliciting comments on the draft air contaminant discharge permit.

46. In addition to soliciting comments for the draft hazardous waste treatment permit and air contaminant discharge permits, the Department issued for public notice on April 5, 1996, an INVITATION TO COMMENT ON FINDINGS (ORS 466.055 & ORS 466.060) AND RISK ASSESSMENT and mailed the notice to the Umatilla Chemical Depot mailing list. The notice requested comments on the Department's Pre-Trial Burn Risk Assessment, and on the ORS §§ 466.055 and 466.060 criteria (ORS Criteria) under which the Commission must make findings before a hazardous waste treatment permit can be issued. The Department issued this INVITATION TO COMMENT to encourage public participation.

47. The initial comment period on the draft environmental permits, risk assessment and ORS 466 criteria was to end at 5:00 p.m. on June 17, 1996 which allowed for a 73-day public

comment period. The 73-day comment period exceeds the minimum length of 45 days set forth in 40 CFR 124.10(b) (adopted by OAR § 340-100-002) for the draft hazardous waste treatment permit and the minimum length of 30 days set forth in OAR 340-28-1710 for the draft air contaminant discharge permit.

48. In accordance with 40 CFR 124.10 (adopted by OAR § 340-100-002) for the draft hazardous waste draft treatment permit, and OAR 340-28-1710 for the draft air contaminant discharge permit, four hearings were held to accept public comment. These four hearings were held as follows:

- On May 13, 1996 in Pendleton, Oregon at 7:00 p.m. at the Pendleton Convention Center.
- On May 14, 1996 in Kennewick, Washington at 7:00 p.m. at Kennewick High School.
- On May 29, 1996 in Portland, Oregon at 7:00 p.m. at the World Trade Center.
- On June 10, 1996 in Hermiston, Oregon at 7:00 p.m. at the Hermiston Community Center.

49. On June 17, 1996 the Department extended the comment period for the draft environmental permits, risk assessment and the ORS Criteria to November 15, 1996 at 5:00 p.m. This extension added an additional 151 days for a total public comment period of 224 days. Extension of the comment period for the draft hazardous waste treatment permit was in accordance with 40 CFR 124.13 (adopted by OAR § 340-100-002) and a public notice of the comment period extension was mailed to the Umatilla mailing list in accordance with 40 CFR 124.13 (adopted by OAR § 340-100-002).

50. Based on a request from a member of the public at the November 15, 1996 Commission meeting, the public comment period was extended to 8:00 a.m. on November 16, 1996.

51. A number of submittals containing comments were received by the Department at the close of the comment period. The Commission was provided complete copies of all comments received including written transcripts of public testimony accepted during public hearings. A summary of the comments received was tabulated by the Department and provided to the Commission at its November 22, 1996 meeting. Public comment and submittals were placed in the administrative record.

General Findings Pertaining to Development of Criteria Findings Required by ORS 466.055, 466.060 and OAR 340, Division 120

52. Oregon law requires that the Commission make findings on specific criteria before a final hazardous waste treatment permit can be issued. ORS 466.055, 466.060 and OAR 340, Division 120.

53. On January, 11, 1996, the Commission held a first work session on the proposed Umatilla permit in Portland, Oregon and was briefed on the proposed permit for incineration of chemical weapons at the Umatilla Chemical Depot. Presenters included DEQ staff and other interested parties.

54. On April 12, 1996, the Commission held a second work session and was briefed by DEQ staff on the proposed Umatilla permits and the Commission findings, and received limited public comment.

55. On May 10, 1996, the Commission and the Department Director traveled to Utah to tour the Tooele chemical demilitarization facility.

56. On May 16, 1996, the Commission conducted a third work session in Portland, Oregon. DEQ staff presented information about the air permit and the Pre-Trial Burn Risk Assessment, and counsel from the Oregon Department of Justice described the legal requirements and findings necessary to issue a hazardous waste treatment permit. A panel discussion was presented on alternatives to incineration. Presenters included the Army, vendors of three alternative technologies and Greenpeace.

57. On May 17, 1996, the Commission received a briefing from Oregon Emergency Management and Morrow County Emergency Management concerning the Chemical Stockpile Emergency Preparedness Program (CSEPP). Mick Harrison of Greenlaw and Dr. Mary O'Brien made presentations to the Commission on risk assessment. Public testimony was received, including testimony from representatives of local government, the Citizens Advisory Commission, Greenpeace and the Confederated Tribes of the Umatilla Indian Reservation.

58. On July 11, 1996, the Commission held a fourth work session in Portland, Oregon, and received a presentation from Department staff and the Department's risk assessment contractor, Ecology and Environment, Inc., responding to risk assessment issues. Army representatives responded to questions concerning safety and alternative permitting scenarios.

59. On August 22, 1996, the Commission conducted a fifth work session in Hermiston, Oregon. The session included a tour of the Umatilla Chemical Depot. A question-and-answer work session discussing various Umatilla subjects was held at the Hermiston Community Center. Discussion included proposed federal legislation, alternative technologies and stockpile storage risks. Professor Iisa of the Chemical Engineering Department of Oregon State University, under contract to the Department, provided verbal testimony on expected dioxin emissions from the proposed Umatilla incinerators. During an evening session the Commission heard oral public testimony on the proposed environmental permits.

60. On August 23, 1996, the Commission received a presentation from Department staff concerning the finding of "best available technology" that must be made before a new hazardous waste treatment permit can be issued by the Commission. The Commission adopted a list of evaluation criteria to be considered for evaluation of the best available technology.

61. On September 27, 1996, the Commission held a sixth work session in Portland, Oregon and heard public testimony from the Oregon Environmental Council, Greenpeace and the Oregon Center for Environmental Health. Department staff presented a draft staff report concerning Commission findings that must be made before issuance of a hazardous waste treatment permit for the incineration of nerve agents at Umatilla Chemical Depot. The Department also presented to the Commission a staff report

listing draft hazardous waste treatment permit conditions to address specific concerns raised by the Commission at previous work sessions.

62. On November 14, 1996, the Commission, during a regular meeting held in Portland, Oregon, heard a presentation from the Confederated Tribes of the Umatilla Indian Reservation which proposed a moratorium pending appointment of a Governor's task force to further evaluate alternatives to incineration of the Umatilla Chemical Depot stockpile, and construction of a munition reverse assembly facility.

63. On November 15, 1996, the Commission held a seventh work session in Portland, Oregon, reviewing the revised FINDINGS staff report and the draft BEST AVAILABLE TECHNOLOGY REPORT from the Department. Also at the meeting Professor Iisa of Oregon State University provided additional testimony to the Commission based on her October 29, 1996 written report concerning potential dioxin emissions from incineration.

64. The Commission, before its November 22, 1996 meeting, received and had the opportunity to review all public comment previously reviewed regarding the hazardous waste treatment permit including written transcripts of all scheduled public hearings.

65. On November 22, 1996, the Commission met in Pendleton, Oregon. The Commission heard final briefings from the Army and Department staff. At this meeting the Commission deliberated the issues, discussed public concerns as reflected in public

testimony and comment and came to a consensus that incineration, as proposed in the Army's hazardous waste treatment permit application, is the best available technology. The Commission determined that the remaining statutory findings could be made and directed Department staff to prepare a final hazardous waste treatment permit with additional and modified conditions and technical corrections.

66. An Administrative Record has been compiled and is maintained at the Department's Eastern Region office in Bend. An index to the Administrative Record is attached to this document as Appendix 1.

Findings and Conclusions Required by Statute and Regulation

67. ORS 466.055, ORS 466.060 and OAR 340, Division 120 require that certain specific affirmative findings be made by the Commission before a hazardous waste treatment facility permit for a new hazardous waste treatment facility may be issued in Oregon.

68. The Army's proposed chemical weapons demilitarization incinerator is a proposal for a new treatment facility subject to certain of these findings.

69. Pursuant to ORS 466.020 the Commission has previously adopted rules at OAR 340, Division 120 which implement, in part, ORS 466.055 and ORS 466.060. These rules distinguish between new *off-site* disposal and treatment facilities and *on-site* facilities. New on-site facilities are *exempted* from certain of the statutory findings enumerated in ORS 466.055.

70. The proposed Umatilla incinerator is a proposal for a

new on-site treatment facility.

71. OAR 340-120-001(4) provides:

> (4) New hazardous waste and PCB treatment and disposal facilities, other than land disposal facilities, located on the site of waste generation (on-site), are only subject to these parts of Division 120:
>
> (a) 340-120-010(2)(c) – Technology and Design;
> (b) 340-120-010(2)(e) – Property Line Setback;
> (c) 340-120-010(2)(g) – Owner and Operator Capability;
> (d) 340-120-010(2)(h) – Compliance History;
> (e) 340-120-020 – Community Participation;
> (f) 340-120-030 – Permit Application Fee.

72. OAR 340-120-010(2)(c) requires:

> (c) *Technology and Design*. The facility shall use the best available technology as determined by the [Commission] for treatment and disposal of hazardous waste and PCB. The facility shall use the highest and best practicable treatment and/or control as determined by the [Commission] to protect public health and safety and the environment.

73. The Commission has broad discretion in determining the parameters for a BAT determination under OAR 340-120-010(2)(c). In the absence of statutory or regulatory criteria, it is appropriate for the Commission to select specific criteria for evaluating best available technology on a case-specific basis.

74. Appropriate criteria for evaluating best available technology in this matter include the following:

A. Types, quantities and toxicity of discharges to the environment by operation of the proposed facility compared to the alternative technologies.

B. Risks of discharge from a catastrophic event or mechanical breakdown in operation of the proposed facility compared to the alternative technologies.

C. Safety of the operations of the proposed facility compared to the alternative technologies.

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D. The rapidity with which each of the technologies can destroy the stockpile.

E. Impacts that each of the technologies have on consumption of natural resources.

F. Time required to test the technology and have it fully operational; impacts of time on overall risk of stockpile storage.

75. Applying the BAT criteria adopted by the Commission and based on the administrative record the Army's proposed incineration technology satisfies the requirements for use of best available technology for destruction of agent at Umatilla. With the inclusion of carbon filters the proposed incineration technology will also employ the highest and best practicable emission control technology. The Commission's rationale for this finding includes the following considerations which are supported in detail by the record:

A. The proposed incineration technology is designed to have only minimal emissions of pollutants to the environment and will achieve an extremely high agent destruction removal efficiency (so-called six "9s" efficiency). The incineration technology may result in extremely minute air emissions including agent, metals, dioxins or similar chlorinated compounds. However, in addition to being extremely small, these emissions will be temporary and well within allowable regulatory limits.

B. The proposed incineration technology is designed with a high level of redundancy to minimize risk of discharge from a catastrophic event or mechanical breakdown in operation. Each

alternative technology reviewed would involve at least similar and potentially greater operational risks, each alternative has significant technical uncertainties, and none has been subjected to the kind of actual testing and operation the baseline technology has undergone.

C. The proposed incineration technology has been designed and tested for safety in operations at other facilities. Actual experience with internal system release detection and containment exists. Alternative technologies reviewed pose technical safety issues and there is no experience with operations.

D. The proposed incineration technology is currently available and will result in the most rapid destruction of the agent stored at Umatilla, a factor that must be juxtaposed to the risk of continued storage.

E. Alternative technologies reviewed, with the exception of neutralization, are years away from actual operational availability.

F. Neutralization technology for HD, while currently undergoing laboratory bench-scale study, would entail lengthy delay at Umatilla due, among other constraints, to the need for staging of construction to allow energetics destruction by incineration prior to construction and operation of neutralization facilities.

G. With the exception of neutralization, technologies reviewed appear to involve little impact on natural resource consumption. Neutralization of HD could, however, have

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significant implications for water consumption and disposal, and would need substantial ecological impact analyses.

H. Alternative technologies reviewed face testing and operational hurdles which would add years of delay to the agent destruction program at Umatilla.

I. Comparative costs of alternative technologies is considered a factor only with respect to neutralization of HD which would add significantly to costs of agent destruction at Umatilla by necessitating construction of a neutralization facility in addition to the proposed incinerators.

In making the above findings with respect to best available technology, the Commission is particularly persuaded by the analysis of alternative technologies in BEST AVAILABLE TECHNOLOGY FINDINGS REPORT UMATILLA CHEMICAL DEPOT, November 1996, prepared for the Department by Ecology and Environment, Inc.; the REPORT ON DIOXINS, by Kristina Iisa, Oregon State University, October 1996 and testimony of Dr. Iisa before the Commission; testimony of Army Assistant Secretary Decker and staff provided on November 22, 1996 concerning extensive delays associated with alternative technologies and potential natural resource impacts of bulk agent neutralization technology.

76. OAR 340-120-010(2)(e) requires:

> (e) *Property Line Setback:*
> (A) Hazardous waste and PCB treatment and disposal facilities, other than land disposal facilities, on the site of waste generation shall have at least a 250 foot separation between active waste management areas and facilities, and property

boundaries.

77. The proposed facility meets the requirement of a 250 foot setback from the property line. The proposed facility would be significantly more than 250 feet (nearly one mile) from the nearest Umatilla Chemical Depot boundary.

78. OAR 340-120-010(2)(g) requires:

> (g) *Owner and Operator Capability.* The owner, any parent company of the owner and the operator must demonstrate adequate financial and technical capability to properly construct and operate the facility. As evidence of financial capability, the following shall be submitted:
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> (A) Financial statements of the owner, any parent company of the owner, and the operator audited by an independent certified public accountant for three years immediately prior to the application;
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> (b) The estimated costs of construction and a plan detailing how the construction will be funded; and
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> (c) A three year projection, from the date the facility is scheduled to begin operating, of revenues and expenditures related to operating the facility. The projection should have sufficient detail to determine the financial capability of the owner, any parent company of the owner and the operator to properly operate the facility.

79. The Army will be the owner and principally responsible operator of the proposed facility. The Army has the legal responsibility to conduct the chemical weapons demilitarization program. The Army is currently managing operation of several agent incineration facilities. Although operations at the existing facilities have not been entirely without problems, the evidence is that the Army has adequately demonstrated the capability to properly construct and operate the facility.

The Army, as a department of the federal government, is exempt from hazardous waste law financial responsibility

requirements. However, private contractors, when selected, must demonstrate required financial responsibility as well as technical capability.

The Army has the capability to construct and operate the proposed facility. When a contractor is selected, a hazardous waste treatment permit modification will be required to make that contractor a co-permittee, and the contractor will then be required to demonstrate technical and financial capability as well.

80. OAR 340-120-010(2)(h) requires:

> (h) *Compliance History.*
> (a) The compliance history in owning and operating other similar facilities, if any, must indicate that the owner, any parent company of the owner and the operator have an ability and willingness to operate the proposed facility in compliance with the provisions of ORS 466 and any permit conditions that may be issued by the Department or Commission. As evidence of ability and willingness, the following shall be submitted:
> (i) A listing of all responses to past actual violations identified by EPA or the appropriate state regulatory agency within the five years immediately preceding the filing of the requests for an Authorization to Proceed at any similar facility owned or operated by the applicant, owner, any parent company of the owner or operator during the period when the actions causing the violations occurred; and
> (ii) Any written correspondence from EPA and the appropriate state regulatory agency which discusses the present compliance status of any similar facility owned or operated by the applicant, owner, any parent company of the owner or operator.
> (B) Upon request of the Department, the applicant shall also provide responses to the past violations identified prior to the five years preceding the filing of an Authorization to Proceed and the specific compliance history for a particular facility owned or operated by the applicant, any parent company of the owner or operator.

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81. The Department staff report of November 1996 outlines in some detail the Army's compliance history at Johnston Atoll Chemical Agent Disposal (JACADs) facility and the Tooele Chemical Disposal facility, both considered relevant to the Commission's evaluation of the Army's compliance history for purposes of the pending permit application. While instances of non-compliance by the Army have been documented, most have been deemed relatively minor in nature and appropriate corrective actions have been taken by the Army to address the few more serious violations. The Department has had no unresolvable enforcement problems with respect to existing hazardous waste activities at the Umatilla Chemical Depot.

82. The regulations pertaining to the management of hazardous waste are voluminous and complex; nevertheless, strict enforcement is warranted. However, it is not unusual for a hazardous waste facility undergoing a compliance inspection to have violations, especially in the area of recordkeeping. The permit applicant has often self-reported permit violations at other facilities. The Army as owner and operator of the proposed Umatilla facility has demonstrated sufficient ability and willingness to operate the proposed facility in compliance with statutory and regulatory provisions.

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83. OAR 340-120-020 requires:

> Community Participation
> 340-120-020 (1) The Commission finds that local community participation is important in the siting and in reviewing the design, construction and operation of hazardous waste and PCB treatment and disposal facilities.
>
> ...
>
> (3) The Director may appoint a committee *[citizen committee]* to review a proposed facility described in rule 340-120-001(4).

84. In view of the existing Governor's Advisory Committee, the Director has not appointed an additional citizens committee pursuant to OAR 340-120-020(3).

The Department and the Commission have engaged in an extensive effort to encourage both local and non-local citizen involvement in this permit application process. The extent of these efforts is reflected in the Commission's General Background Findings and in the administrative record. There has been opportunity for public input on all aspects of the permit application process including the health and ecological risk assessments and the legally required Commission findings. The public involvement has greatly assisted the Commission in its decisions.

85. ORS 466.055(5) requires a Commission finding that:

> (5) The proposed hazardous waste or PCB treatment or disposal facility has no major adverse effect on either:
> (a) Public health and safety; or
> (b) Environment of adjacent lands.

The detailed human health and ecological risk assessments

conducted by the Army and by the Department did not show that the proposed facility will have major adverse effects on either human health and safety or the environment. The proposed facility uses engineering process controls and state of the art pollution abatement systems which will undergo extensive testing before operations commence. Revised permit conditions incorporate additional safeguards as specifically directed by the Commission at its meeting in Pendleton, Oregon on November 22, 1996. The proposed facility, if operated as designed and in accordance with the permit, will not have any major adverse effect on public health and safety, or to the environment of adjacent lands.

In making the above finding regarding no adverse effects, the Commission is particularly persuaded by the REPORT ON DIOXINS by Kristina Iisa, Oregon State University, October 1996, and Dr. Iisa's testimony before the Commission; the DRAFT PRE-TRIAL RISK ASSESSMENT PROPOSED UMATILLA CHEMICAL DEMILITARIZATION FACILITY, HERMISTON, OREGON, Vols. I and II prepared by Ecology and Environment, Inc., April 1996; PERSPECTIVES ON THE UMATILLA QUANTITATIVE RISK ASSESSMENT RESULTS prepared by SAIC, September 1996 and testimony of Gary Boyd, SAIC, before the Commission November 22, 1996; and DEQ AND ECOLOGY & ENVIRONMENT RESPONSE TO RISK ASSESSMENT ISSUES, July 11, 1996

86. ORS 466.055(4)(a) requires a Commission finding that:

> (4) The need for the facility is demonstrated by:
> (a) Lack of adequate current treatment or disposal capacity in Oregon, Washington, Idaho, and Alaska to handle hazardous waste or PCB generated by Oregon Companies;
> (b) A finding that operation of the proposed facility would result in a higher level of protection of the public health and safety or environment; or

(c) Significantly lower treatment or disposal costs to Oregon Companies.

The proposed facility is a non-commercial, sole purpose on-site treatment facility. The requirements of ORS 466.055(4) are directed at commercial facilities. Nevertheless, the Commission finds that the operation of the proposed facility will reduce, and eventually eliminate, the risk to surrounding communities from continued storage of the chemical agents and munitions for which there is presently no disposal option. The need for the facility is demonstrated because operation of the proposed facility will result in a higher level of protection for public health and safety and for the environment.

Now, therefore, IT IS ORDERED that:

1. These findings, conclusions and order shall constitute the Commission's final permit decision and response to public input.

2. Nothing contained herein shall be deemed to waive or restrict any authority of the Commission or any other entity of the State of Oregon to take such action as may be deemed necessary within the scope of their respective authorities to prevent or abate an imminent hazard to public health or the environment.

3. These findings, conclusions and order are based upon representation of the permittee and evidence in the administrative record. Upon evidence of any material misrepresentation or material change in facts, the Commission reserves the right, in its discretion, to reopen these

proceedings.

4. The Commission shall issue the hazardous waste treatment permit to the United States Army containing the terms and conditions agreed upon by the Commission as of the date of this Order, including those additional permit conditions specifically ordered by the Commission as reflected in Attachment A to Appendix 3 which is incorporated herein.

5. This Order shall be an Order In Other Than A Contested Case, and no administrative appeal of the permit shall be provided to the applicant or third parties.

DATED this 12th day of February, 1997.

Henry Lorenzen
Chair

Carol A. Whipple
Vice-Chair

Linda A. McMahan
Member

Tony Van Vliet
Member

Melinda Eden
Member

Henry Lorenzen, Chair
For the Environmental Quality Commission

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Index of Adm. ...r File
Appendix 1

Item #	Heading #	Heading	Document				Type
15	1	Part A	RCRA Permit Application	3	6	95	Letter
1	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
2	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
3	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
4	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
5	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
6	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
7	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
8	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
9	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
10	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
11	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
12	1	Part B	RCRA HW Permit Application for Dept of the Arm	2	0	95	Applctn
13	1	Part B	RCRA Application NOD Response	2	0	95	Applctn
14	1	Part B	RCRA Application Change Page Summaries	2	0	95	Applctn
16	1	Part A	Draft Part A: RI/FS Work Plan	1	0	90	WrkPlan
2271	2	Part B	UMCDF RCRA & Air Final Response/Change Pages	3	21	96	ChngePages
2017	3	Environ. Permits	Draft Hazardous Waste Permit	4	5	96	Permit
2117	4	Part B Support	Does Tooele Data Demonstrate Compliance?	10	8	96	Memo
1844	4	Part B Support	Example of On-site Container Drawing Specifict	10	4	96	Drwing/Memo
1669	4	Part B Support	Utah Federal Court Decision	8	13	96	Legal Doc
1831	4	Part B Support	Reports Regarding Steve Jones Allegations	5	22	96	Reports
1832	4	Part B Support	JACADs Weekly Feed/Incident Reports	5	13	96	Reports
2118	4	Part B Support	Table 6-16 Left Out of HW Permit	5	10	96	Memo
1464	4	Part B Support	Add'l Items to Address as a Rslt of Chnge Page	4	5	96	Letter
1462	4	Part B Support	Add'l Items to Address as a Rslt of Chnge Page	4	5	96	Letter
1463	4	Part B Support	Notification of Complete Application	4	4	96	Letter
1256	4	Part B Support	Comments on the RCRA & CAA Permits for UMCDF	4	3	96	Letter
1460	4	Part B Support	UMCDF Permit Application Comments	3	28	96	Fax
1369	4	Part B Support	Follow-up to 7/17/95 Alabama Meeting	3	26	96	Fax
1461	4	Part B Support	Comments on Draft HW Permit from Region 10	3	25	96	Comments
1843	4	Part B Support	Submitting RCRA Part B Application Change Page	3	21	96	Letter
1368	4	Part B Support	Follow Up To Request of:ANCDF HRA	3	15	96	Letter
1628	4	Part B Support	BDAT Minimum Technology Standard: RCRA	3	15	96	Memo
1798	4	Part B Support	1995 Annual Report of RCRA Noncompliance JACAD	3	15	96	Report
1367	4	Part B Support	Requested Info. on 3 Issues on 2-1-96	2	20	96	Letter
1046	4	Part B Support	RCRA Permit Quality Protocol	2	1	96	Memo/Chklst
1045	4	Part B Support	Umatilla Army Incinerators Permitting	1	29	96	Memo
1459	4	Part B Support	UMCDF Preliminary RCRA Draft Permit General	1	24	96	Comments
1044	4	Part B Support	Draft Umatilla Army Incin. Permitting Proc.	1	8	96	Memo
1965	4	Part B Support	Permit Issuance Authority	7	13	95	Memo
1670	4	Part B Support	DataChem Lab Nitroglycerin/PETN Method	7	10	95	Report
17	4	Part B Support	Revisions of Draft Protocol RCRA Part B	7	29	94	Memo

1023	4	Part B Support	RCRA Permit Application Update	6	1	93	Report
1024	4	Part B Support	RCRA Permit Application Update	6	1	93	Report
1506	4	Part B Support	Liability of Federal Government Question	12	13	90	Memo
21	4	Part B Support	RCRA Part B Checklist	4	23	90	Report
24	4	Part B Support	RCRA Part B Application Completeness Technical	8	0	89	Chcklst
1739	4	Part B Support	Request for Written Opinion on Applicability	4	28	88	Memo
25	4	Part B Support	RCRA Part B Application Checklist Enclosure 3	2	12	88	Chklst
67	4	Part B Support	Contractors Liability	2	4	88	Memo
26	4	Part B Support	CBI For RCRA HW Permit Application-May 1987	5	0	87	Rqst
22	4	Part B Support	Completeness/Technical Evaluation Checklist	10	22	86	Chklst
27	4	Part B Support	UMDA RCRA Application	10	16	86	SpdLttr
28	4	Part B Support	Request for Extension, CBI For RCRA HW Prmt	9	0	86	Rqst
29	4	Part B Support	Proprietary Data of Trane Thermal-Blueprings	9	0	86	Rqst
30	4	Part B Support	Request for 40 CFR 264.340 Exemption (RCRA)	4	0	84	Report
31	4	Part B Support	RCRA Part B Permit Application Checklist	0	0	0	Chklst
32	4	Part B Support	Contingency Plan, Annex C Plan, Offsite Evactn	0	0	0	Notes
33	4	Part B Support	DOD Compliance History	0	0	0	Report
1025	4	Part B Support	Anniston Carbon Filter Design Package Specfctn	0	0	0	Report
1153	4	Part B Support	Process for Contested Case Hearings	0	0	0	Notes
34	5	NODs	NOD No. 5, Attachment A Inluded	3	15	94	Report
1026	5	NODs	NOD Review Comments RCRA Permit Application	6	0	93	Report
35	5	NODs	Notice of Permit Application NOD	4	21	93	Report
36	5	NODs	NOD Review Comments RCRA Permit Application	11	4	92	Table
1027	5	NODs	NOD Review Comments Umatilla Supplement A	11	4	92	Report
1028	5	NODs	NOD Review Comments Umatilla Supplement B	11	4	92	Report
1029	5	NODs	NOD Review Comments Umatilla Supplement C	11	4	92	Report
1030	5	NODs	NOD Review Comments Umatilla	11	4	92	Report
1659	5	NODs	NOD Review Comments - Clean Change Pages	11	4	92	NODs
20	5	NODs	Issues/Comments on UMDA	11	4	92	Report
37	5	NODs	NOD Review Comments for Anniston Air & RCRA	8	30	92	Report
39	5	NODs	NOD, Deficiencies Not Addressed	1	21	92	Letter
41	5	NODs	NOD Draft, 9-30-91, UMDA-CSDP	12	5	91	Memo/Fax
2035	5	NODs	NOD, Adequacy of Explosives Handling	10	1	90	Report
42	5	NODs	NOD for CSDP, Summary of Responses	8	6	90	Report
44	5	NODs	Compliance Order HW-ER-89-67	1	5	90	Letter
45	5	NODs	Certfctn Required by Violtn & Compliance Ordr	1	3	89	Letter
48	5	NODs	Final NOD Review, Review of Safety Procedures	1	3	89	Letter
2325	5	NODs	Request for Exemption Denied Based on Findings	2	10	88	Letter
2326	5	NODs	Meeting to Specify What is Needed for NOD Rspn	2	3	88	Fax/Memo
2327	5	NODs	On-Site Inspection Observations From 8/3/87	1	22	88	Letter
2328	5	NODs	Comments on the Revised Part B	1	0	88	Comments
49	5	NODs	Prog. Mngr for Chem. Munitns	9	24	87	Report
50	5	NODs	Tech. Evaluatn NOD & Checklist	8	28	87	Report
52	5	NODs	NOD and Warning Letter, Provides Recommendatio	2	17	87	Letter
57	5	NODs	Matrix of NODs on CAD Incinerators	0	0	0	Charts
1370	6	Response to NODs	UMCDF RCRA Part B Change Pages Request	3	6	96	Letter

60	6	Response to NODs	RCRA HW Permit Application for Anniston CSDP	10	0	94	Report
62	6	Response to NODs	Education of Citizens	9	14	94	Letter
63	6	Response to NODs	11/3/89 Letter Response	11	22	89	Letter
64	6	Response to NODs	Umatilla Army Depot Incinerator Project	3	8	89	Letter
2331	6	Response to NODs	Preliminary Design Review	11	18	88	Letter
65	6	Response to NODs	Comments on Summary of Army Responses	11	17	88	Letter
66	6	Response to NODs	Response to Letter, Applicability of HSWA Stat	11	14	88	Letter
68	6	Response to NODs	Operational Contractor May Not be Liable	2	12	88	Letter
72	6	Response to NODs	EPA Response to Final EIS	2	9	88	Letter
73	6	Response to NODs	Comments: CSDP, Final Programmatic EIS	2	5	88	Letter
69	6	Response to NODs	Request for Additional Docs and Information	4	8	87	Letter
70	6	Response to NODs	Response to Request, Compiled Summary Events	4	2	87	Letter
71	6	Response to NODs	Meeting on Health Aspects of Emergency Respons	3	20	87	Letter
2251	7	Official Comments	Public Comments	11	19	96	Memo
2252	7	Official Comments	Public Comments	11	18	96	Memo
2219	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	16	96	Letter
2249	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	16	96	Letter
2195	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2215	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2217	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2223	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2222	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2225	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2224	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2228	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2230	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2229	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2227	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2226	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2246	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Report
2267	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Rpt/Lttr
2266	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Rpt/Lttr
2212	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Rpt/Lttr
2231	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2194	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2218	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2197	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2220	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2221	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2234	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2241	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2250	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2248	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2260	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2216	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2193	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter

2237	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2238	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2192	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	12	96	Letter
2243	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	12	96	Letter
2244	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	12	96	Letter
2190	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	9	96	Letter
2191	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	9	96	Letter
2188	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	4	96	Letter
2185	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	31	96	Letter
2187	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	30	96	Letter
2186	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	30	96	Letter
2184	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	28	96	Letter
2182	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	22	96	Letter
2183	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	21	96	Letter
2180	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	17	96	Letter
2177	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	9	24	96	Letter
2178	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	9	24	96	Letter
2181	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	9	23	96	Letter
2189	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	9	1	96	Letter
2171	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	23	96	Letter
2167	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	96	Letter
2168	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	96	Letter
2169	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	96	Letter
2170	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	96	Letter
2172	7	Official Comments	Public Comments	8	22	96	Testimony
2165	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	13	96	Letter
2179	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	11	96	Letter
2175	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	1	96	Letter
2174	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	7	10	96	Letter
2214	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	14	96	Letter
1786	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	13	96	Letter
1787	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	13	96	Letter
2164	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	13	96	Letter
2176	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	12	96	Letter
1791	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	12	96	Letter
2256	7	Official Comments	Public Comments From Hermiston Public Hearing	6	10	96	Transcript
1785	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2173	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2211	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2210	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2209	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2213	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2205	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	9	96	Letter
2255	7	Official Comments	Public Comments From Pendleton Public Hearing	6	7	96	Transcript
2204	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	6	96	Letter
2254	7	Official Comments	Public Comments from Kennewick Public Hearing	6	5	96	Transcript

2206	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	2	96	Letter
1784	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	30	96	Letter
1790	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	30	96	Letter
2200	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	29	96	Letter
2201	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	29	96	Letter
2202	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	29	96	Letter
2232	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	29	96	Statemnt
2253	7	Official Comments	Public Comments Received From PDX Pblc Hearing	5	29	96	Testimony
2203	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	28	96	Letter
1788	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	15	96	Letter
1783	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	29	96	Letter
1789	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	26	96	Letter
2198	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	26	96	Letter
1782	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	25	96	Letter
1781	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	19	96	Letter
1780	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	15	96	Letter
1779	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	12	96	Letter
1692	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	12	96	Report
1778	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	11	96	Letter
1777	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	9	96	Letter
1776	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	7	96	Letter
1773	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	5	96	Letter
1771	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	3	29	96	Letter
1770	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	3	20	96	Letter
2196	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	27	95	Letter
2208	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	22	95	Letter
2199	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	95	Letter
2247	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	86	Report
2166	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Report
2245	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2242	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2240	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2239	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2233	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2236	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2235	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2232	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2207	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Drawings
2264	8	Public Notices	UAD Public Comments By CTUIR	11	15	96	Comments
2265	8	Public Notices	UAD Public Comments By Karyn Jones	11	15	96	Comments
1729	8	Public Notices	"Your Opinion Counts!"-for 8/22-23/96 EQC Mtg	8	20	96	NewsAdv
1683	8	Public Notices	"Your Opinion Counts!"-Info Meeting Notice	8	17	96	NewsArt
1675	8	Public Notices	"Your Opinion Counts"-Info Meeting Notice	8	3	96	NewsArt
2263	8	Public Notices	UAD Public Comments 6/17/96-11/15/96	6	17	96	Comments
1565	8	Public Notices	Chance to Comment on Extension,Comment Period	6	17	96	ChnceCommnt
1566	8	Public Notices	Chance to Comment on Extension, Comment Period	6	17	96	NewsArt

2158	8	Public Notices	Umatilla Public Hearing, Tape 1, Hermiston	6	10	96	Cassette
2159	8	Public Notices	Umatilla Public Hearing, Tape 2, Hermiston	6	10	96	Cassette
2160	8	Public Notices	Umatilla Demilitarization Public Hearing Tape	5	29	96	Cassette
2161	8	Public Notices	Umatilla Demilitarization Public Hearing Tape	5	29	96	Cassette
2162	8	Public Notices	Umatilla Army Depot Public Hearing, Pendleton	5	13	96	Cassette
2262	8	Public Notices	UAD Public Comments 5/13/96-6/17/96	5	13	96	Comments
1447	8	Public Notices	Chance to Comments	4	5	96	NewsArt
1562	8	Public Notices	Chance to Comment on Findings and Risk Asses.	4	5	96	ChnceCommnt
1563	8	Public Notices	Chance to Comment on Proposed Haz Waste Permit	4	5	96	ChnceCommnt
1564	8	Public Notices	Chance to Comment on Proposed Air Quality Prmt	4	5	96	ChnceCommnt
1841	8	Public Notices	Fact Sheet for Draft HW Trtmnt & Storage Prmt	4	5	96	Fact Sheet
886	8	Public Notices	Treatment/Storage&Disposal Fac	0	0	0	MagArt
887	8	Public Notices	Closing of Fort McClellan	0	0	0	NewsArt
1966	9	Governor Corres.	Response to letter from JChien	11	8	96	Letter
1967	9	Governor Corres.	GDecker Response to Governors Letter 10/7/96	11	7	96	Letter
1968	9	Governor Corres.	Application Modification and Withdrawal	10	14	96	Letter
2095	9	Governor Corres.	Comments Regarding Chemical Depot	9	4	96	Letter
2110	9	Governor Corres.	Effectiveness of DEQ Staff	7	15	96	Letter
1964	9	Governor Corres.	Regarding Letter of Concerns Regarding Permits	6	28	96	Letter
1962	9	Governor Corres.	Regarding Letter of Concerns on Best Avail Tec	6	20	96	Letter
1963	9	Governor Corres.	Regarding Letter of Concerns on Best Avail Tec	6	20	96	Letter
1531	9	Governor Corres.	Rpt on Status of Umatilla Permitting Decisions	5	31	96	Memo
1792	9	Governor Corres.	Comments Regarding Public Hearing Process	5	30	96	Letter
1961	9	Governor Corres.	CTUIR Letter of 4/26/96 Regarding Proposed Umt	5	15	96	Letter
1960	9	Governor Corres.	Regarding Letter of Concerns for Health & Env.	5	2	96	Letter
1954	9	Governor Corres.	Concerns Regarding Releases by UCD	4	26	96	Letter
1955	9	Governor Corres.	Regarding Letter of Concerns on UCD for Alt Te	4	26	96	Letter
1956	9	Governor Corres.	Regarding Letter of Concerns of Accdntl Contam	4	26	96	Letter
1957	9	Governor Corres.	Regarding Letter for Opinions on Incineration	4	26	96	Letter
1958	9	Governor Corres.	Regarding Phone Call on Burning Toxic Chemical	4	26	96	Letter
1959	9	Governor Corres.	Regarding Letter of Concerns on Incineration	4	26	96	Letter
1851	9	Governor Corres.	5/21 Mtg of Umatilla CAC & Tour of Depot	4	24	96	Memo
1953	9	Governor Corres.	Storage of Nerve Agent Undesirable, Alt Needed	4	3	96	Letter
1952	9	Governor Corres.	Regarding Letter of Concerns for a Delay	3	25	96	Letter
1377	9	Governor Corres.	Regarding Letter Requesting Moratorium on App.	3	19	96	Letter
1378	9	Governor Corres.	Regarding Letter Regarding Delay for Permit Ap	3	19	96	Letter
1379	9	Governor Corres.	Regarding Letter of Concerns for Health & Env.	3	19	96	Letter
1380	9	Governor Corres.	Regarding Letter of Concerns for Health & Env.	3	19	96	Letter
1090	9	Governor Corres.	Move Forward with Incineration	3	13	96	Letter
1371	9	Governor Corres.	Comments to Not Delay the Permit Process	2	21	96	Letter
1951	9	Governor Corres.	Concerns for Enforcement of Env. Standards	1	22	96	Letter
83	9	Governor Corres.	Draft RCRA Munitions Rule	6	20	95	Letter
1950	9	Governor Corres.	Chemical Weapons Incineration at Umatilla	3	19	95	Memo
61	9	Governor Corres.	Responding to Letter on M-55 Rocket Stability	9	14	94	Letter
149	9	Governor Corres.	Prelim Rslt -Risk Reassessment Studies	8	19	94	Letter
227	9	Governor Corres.	Contract from Jeff Blackman	9	8	93	Request

228	9	Governor Corres.	Concerns About Proposed Incineration of Chem.	9	6	93	Letter
229	9	Governor Corres.	CDCAC Executive Order No. EO-93-10	8	6	93	Order
241	9	Governor Corres.	May 12 Public Forum	6	10	93	Letter
254	9	Governor Corres.	Contract from Victor Barnett	1	5	93	Request
291	9	Governor Corres.	Proposed Executive Order	4	8	91	Memo
447	9	Governor Corres.	Concern Safety of E. Oregon Communities	0	0	91	Letter
335	9	Governor Corres.	Tour JACADs	11	1	89	Letter
345	9	Governor Corres.	Cleanup of Contamination	7	28	89	Letter
374	9	Governor Corres.	DRAFT: Participants on ICCB	9	22	88	Letter
392	9	Governor Corres.	Concerns on Specific Environmental Assessment	3	2	88	Letter
399	9	Governor Corres.	Concerns on the Proposed Nerve Agent Demil.	12	18	87	Letter
403	9	Governor Corres.	Contractor Liability During Demil.	11	7	87	Letter
464	9	Governor Corres.	Regarding Letter of Concerns	6	3	86	Letter
2261	10	Correspondence	Public Comment Received Ater 11/15/96	11	18	96	Letter
2096	10	Correspondence	Transmittal of Public Comments	11	18	96	Memo
1976	10	Correspondence	Thank you to Professor Iisa For Dioxin Report	11	8	96	Letter
1971	10	Correspondence	Participant Info Request	11	8	96	Letter
2097	10	Correspondence	Agenda Item, ORS 466.055, and Agenda 11/14-15/	10	31	96	Fax
2098	10	Correspondence	Review of Meeting on 10-18	10	30	96	Letter
2099	10	Correspondence	Letter of Appreciation for DEQ Staff	10	24	96	Letter
1972	10	Correspondence	Transmittal of Documents	10	16	96	Memo
1973	10	Correspondence	Questions re: Separation of M55 Rockets	10	14	96	Fax
1838	10	Correspondence	NAC Permission to Photocopy 7 NRC Reports	10	9	96	Letter
1940	10	Correspondence	Request for Permission to Make 7 Copies NRC Rp	10	9	96	Fax/Memo
1845	10	Correspondence	Final UMCDF Phase 1 Quantitative Risk Assessmn	10	1	96	Memo
1846	10	Correspondence	Thank You To National Academy Press	10	1	96	Fax/Memo
1974	10	Correspondence	Permission to Make 15 Copies of NRC Report	10	1	96	Fax
1975	10	Correspondence	Request Permission to Make 15 Copies of NRC Rp	10	1	96	Fax/Memo
2100	10	Correspondence	Request for Information	9	23	96	Memo
1847	10	Correspondence	Response Letter to Wendell Ford	9	14	96	Letter
1760	10	Correspondence	Thank You For Your Comments Letter	9	11	96	Letter
1709	10	Correspondence	Requst to Review NRC Report on BAT for UMCDF	9	6	96	Letter
1710	10	Correspondence	Request for PAS Carbon Design Opinion for UMCD	9	6	96	Letter
1759	10	Correspondence	Invitation to The 2nd Env.Forum ChemWeapons...	8	28	96	Letter
1708	10	Correspondence	PMCD Memo Re: EQC Meeting 8/22/96	8	27	96	Memo
1796	10	Correspondence	Denver Dialogue, 7-10-96	8	26	96	Letter
1686	10	Correspondence	Permit Changes to CMassimino	8	21	96	Memo
1795	10	Correspondence	Transmittal of Umatilla Permit Information	8	12	96	Memo
1848	10	Correspondence	Secondary Chamber Feed for HD LIC Trial Burn	8	7	96	Letter
1794	10	Correspondence	Disposal of Chemical Agents & Munitions Stored	8	5	96	Letter
1632	10	Correspondence	Request for Attendance & Travel Cncrning UCD	8	2	96	Letter
1630	10	Correspondence	Request for Attendence & Travel Cncrning UCD	7	30	96	Letter
1631	10	Correspondence	Request for Attendence & Travel Cncrning UCD	7	30	96	Letter
1800	10	Correspondence	Disposal of ChemAgents at Umailla Depot Fnl EI	7	19	96	Letter
1707	10	Correspondence	Ford-Brown Chem Weapons Demil Amendment	7	17	96	Letter
1799	10	Correspondence	Thank You Letter to E&E	7	16	96	Letter

1671	10	Correspondence	Responding to Statements By Army Official	7	15	96	Letter
1797	10	Correspondence	Response letter for request from JHaley	6	28	96	Letter
1610	10	Correspondence	Thank you for Info on CSEPP Plan	6	26	96	Letter
1793	10	Correspondence	Transcript Review Consistant with Mtg. Notes	6	26	96	Letter
1609	10	Correspondence	Response to Comments Regarding Incineration	6	21	96	Letter
2101	10	Correspondence	Resume for Larry Baxter	6	20	96	Fax
1561	10	Correspondence	Transmittal of EQC Alt.Tech. Video	6	17	96	Memo
1608	10	Correspondence	Request for Complete Copy of Part A HW Appl	6	17	96	Letter
1560	10	Correspondence	Provision within AQ Rules Pertaining To Permit	6	14	96	Letter
1607	10	Correspondence	Comments in Response to 6/12/69 Editorial	6	14	96	Letter
1559	10	Correspondence	Response to DTweten's 6-6-1996 Letter	6	13	96	Letter
1558	10	Correspondence	Conversation w/Jim Long-Oregonian Reporter	6	4	96	Memo
1532	10	Correspondence	Transmittal of Cassettes Pub.Hearing 5/29/96	6	3	96	Memo
1849	10	Correspondence	Summary of Concerns Voiced at 5/29/96 Hearing	6	3	96	Memo
1530	10	Correspondence	Transmittal of UAD Air Dispersion Computr File	5	23	96	Memo
1529	10	Correspondence	Air Dispersion Modeling Files	5	22	96	Letter
1850	10	Correspondence	Request for Pre-Trial Burn RA Air Modeling Fil	5	20	96	Fax
1526	10	Correspondence	Umatilla Incineration Air Modeling Data Access	5	16	96	Memo
1527	10	Correspondence	Increase of Funds Available for Army Research	5	16	96	Memo
1528	10	Correspondence	Misinterpretation of MFurse Statement	5	16	96	Memo
1509	10	Correspondence	Transmittal of Umatilla Diskettes	5	8	96	Memo
1508	10	Correspondence	Transmittal of Requested Copies	5	6	96	Memo
1077	10	Correspondence	Responding to Letter of Concerns of Incineratn	5	6	96	Letter
1507	10	Correspondence	Transmittal of Umatilla Diskettes	4	26	96	Memo
1693	10	Correspondence	Responding to Letter of Concerns	4	24	96	Letter
1473	10	Correspondence	Fax Transmittal of North Carolina Study	4	23	96	Fax
1474	10	Correspondence	Agenda for Portland Mtg. 5/16/96	4	23	96	Fax
1472	10	Correspondence	Transmittal of Umatilla Diskettes	4	19	96	Memo
1471	10	Correspondence	UMCDF Part B Request for Additional Info	4	17	96	Letter
1470	10	Correspondence	JACADS Class 1 Permit Modification Denial	4	5	96	Letter
1469	10	Correspondence	Comments on Chance to Comments Sheets	4	4	96	Comments
1382	10	Correspondence	JACADS Class 2 Permit Modification Approval	3	27	96	Letter
1376	10	Correspondence	Permit Condition Modifications	3	19	96	Fax/Memo
1375	10	Correspondence	Opposition to UMCDF	3	16	96	Letter
1468	10	Correspondence	Comments on Revised EIS from Greenlaw	3	15	96	Comments
1373	10	Correspondence	Revised Draft EIS Comments	3	14	96	Letter
1374	10	Correspondence	EPA Involvement in UMCDF Permitting Decision	3	14	96	Letter
1381	10	Correspondence	EPA Involvement in UMCDF Permitting Decision	3	14	96	Letter
1211	10	Correspondence	JACADS Class 2 Permit Modification Approval	3	12	96	Letter
1209	10	Correspondence	Transmittal of Diskette w/Draft UMCDF Permit	3	11	96	Memo
1210	10	Correspondence	Transmittal of Diskette	3	11	96	Memo
1208	10	Correspondence	Transmittal of Umatilla Draft Permit w/Notes	3	8	96	Memo
1467	10	Correspondence	Sumps Classified As Non-RCRA TOCDF	2	29	96	Letter
1372	10	Correspondence	Dedication for Army Outreach Office	2	28	96	Letter
1155	10	Correspondence	Response to Request for One-Year Moratorium	2	23	96	Letter
1204	10	Correspondence	Request to Review WAP	2	14	96	Fax

1053	10	Correspondence	Request for Information	1	27	96	Letter
1188	10	Correspondence	Re: Change in ODEQ Haz Waste Program	1	22	96	Letter
1050	10	Correspondence	JACADs Class One Modification Notices	1	11	96	Letter
1051	10	Correspondence	JACADs RD&D Permit Application	1	11	96	Letter
1048	10	Correspondence	JACADs Class One Modification Notice	1	10	96	Letter
1049	10	Correspondence	JACADs Class One Modiciation Approval	1	10	96	Letter
1052	10	Correspondence	JACADS Class One Modification Approval	1	10	96	Letter
1186	10	Correspondence	Transmittal of Risk Assessment Documents	1	1	96	Memo
1036	10	Correspondence	Letter Sent with Preliminary Draft Permit	12	29	95	Letter
1035	10	Correspondence	Transmittal of Draft Umatilla Chem Demil Prmt	12	27	95	Memo
74	10	Correspondence	JACADS Class 1 Permit Modification Rejection	12	14	95	Letter
1203	10	Correspondence	JACADS Class 2 Permit Modification Request	11	27	95	Letter
1156	10	Correspondence	Response to Risk Assess. Storage Biggest Rsk	11	2	95	Letter
1466	10	Correspondence	Problems Discovered During LIC & DFS Trl Brns	10	31	95	Letter
1201	10	Correspondence	JACADS 14 Class 2 Permit Modification Proposal	10	26	95	Letter
1202	10	Correspondence	JACADS Class 1 Permit Modification Submittals	10	16	95	Letter
75	10	Correspondence	Letter Sent to Morrow County Re: Mtg. Arrngmnt	8	28	95	Memo/Fax
76	10	Correspondence	Revised Scope From Contractors	8	25	95	Memo
1465	10	Correspondence	Information From Agent Monitoring Meeting	8	25	95	Memo
77	10	Correspondence	CTUIR Comments on Draft Pre-Trial Burn RA	8	22	95	Letter
1157	10	Correspondence	JACADS Class 1 Permit Mod.Submittals	8	17	95	Letter
78	10	Correspondence	Qualitative Risk Assessment Contacts	8	11	95	Fax
79	10	Correspondence	Umatilla Project Activities at Hermiston Offic	8	8	95	Memo
80	10	Correspondence	JACADs-Army Application for a New Permit	8	1	95	Letter
81	10	Correspondence	JACADS Permit Application Review	7	19	95	Memo
82	10	Correspondence	Pre-Proposed Munitions' Rule	6	21	95	Letter
84	10	Correspondence	Use of STEL or TLV-TWA or Ceiling Limits	6	19	95	Letter
85	10	Correspondence	Performance Evaluation Report	5	24	95	Memo/Fax
86	10	Correspondence	E&E Access to Depot	5	24	95	Letter
87	10	Correspondence	Conforth Ranch as Game Reserve	5	15	95	Memo/Fax
88	10	Correspondence	TOCDF Medical Forms	5	12	95	Memo/Fax
89	10	Correspondence	Closing of Ft. McClellan	5	9	95	Letter
90	10	Correspondence	OR/US Army Cooperative Agreement	5	1	95	Letter
91	10	Correspondence	CSEPP Reentry Restrtn Matrl	4	28	95	Memo
92	10	Correspondence	Inspection of Tooele Depot	4	17	95	Letter
93	10	Correspondence	RCRA Permit Application	4	14	95	Letter
94	10	Correspondence	Chem Agent Stockpile Incin.	3	24	95	Letter
95	10	Correspondence	GAO Letter, Budget Estimates Weapons Dest.	3	17	95	Letter
96	10	Correspondence	Incineration of Stockpile	3	8	95	Letter
97	10	Correspondence	Permit Application, 5X,3X	3	8	95	Memo/Fax
98	10	Correspondence	Class 2 Permit Modification	3	6	95	Letter
99	10	Correspondence	Meteorological Monitring Plan	2	28	95	Letter
100	10	Correspondence	Class 2 Permt Modifictn, JACADS	2	28	95	Letter
101	10	Correspondence	Proposal Being Postponed	2	27	95	Letter
102	10	Correspondence	Meeting at Umtlla Co. Emer.	2	24	95	Letter

448	10	Correspondence	Comments on Applctn by Army for Permit Mod	2	23	95	Letter
103	10	Correspondence	Check Acc., Commission Mtgs.	2	22	95	Memo
104	10	Correspondence	Mtg. at Lutheran Church	2	20	95	Letter
1034	10	Correspondence	Narrtve Postn Descrptns Demil Project	2	8	95	Memo
1637	10	Correspondence	UMDA Meteorological Station Systems Audit	2	1	95	Letter
105	10	Correspondence	Extension Granted to Army-NOD	1	24	95	Letter
106	10	Correspondence	GAO Report on Chemical Weapons	1	13	95	Memo/Rpt
107	10	Correspondence	Approval Resp. Extension NOD#5	12	22	94	Letter
108	10	Correspondence	FEMA Agreement EMS-94-K-0327	12	22	94	Letter
109	10	Correspondence	Update on Workplan	12	16	94	Memo/Fax
110	10	Correspondence	Solicit Input Army's Criteria	11	23	94	Letter
111	10	Correspondence	Permit Review	11	22	94	Letter
112	10	Correspondence	HW Compliance Inspection	11	21	94	Letter
113	10	Correspondence	Update on Response to NOD	11	20	94	Letter
114	10	Correspondence	Meeting Notice for Open House	11	16	94	Notice
115	10	Correspondence	Meteorological Monitoring Plan	11	15	94	Letter
116	10	Correspondence	PAS Air Filter System	11	14	94	Letter
117	10	Correspondence	Site Visit @ MD, UT, & OR	11	4	94	Letter
118	10	Correspondence	Transmittal of Documents	11	4	94	Memo
119	10	Correspondence	Met Station Information Update	11	1	94	Memo
120	10	Correspondence	Upcoming DEQ Open House	11	1	94	Letter
121	10	Correspondence	Risk Assumptions Proposal	10	31	94	Fax/Memo
122	10	Correspondence	Address as Follow	10	26	94	Fax
123	10	Correspondence	Nov Emergency Board Letter	10	26	94	Fax
124	10	Correspondence	Weapons Destrctn Prog. Report	10	21	94	Letter
125	10	Correspondence	WkGrp Rev-Eval of Method 0010	10	17	94	Letter
126	10	Correspondence	DEQ Open House in Hermiston	10	17	94	Memo
127	10	Correspondence	EPA - US ARMY Meeting Outline	10	11	94	Outline
128	10	Correspondence	UT-DEQ Risk Assessment Status	10	11	94	Letter
129	10	Correspondence	Demil Cit Adv Comm Period Extn	10	11	94	Letter
130	10	Correspondence	DOA Concerns Chem Demil Prmt	10	11	94	Memo
131	10	Correspondence	On-Site Meteorological Station	10	10	94	Fax/Memo
132	10	Correspondence	Bullet Summary of Fed FY 95	10	5	94	Fax/Memo
133	10	Correspondence	Site Visits, Questions, Pine Bluff	10	5	94	Letter
134	10	Correspondence	Supplemental RI Study Sites	10	4	94	Letter
135	10	Correspondence	Comment-60% Remedial Design	9	28	94	Memo
136	10	Correspondence	Two Regulations Attached	9	21	94	Fax/Memo
137	10	Correspondence	Technical Conference	9	20	94	Flyer
138	10	Correspondence	Draft Notes Meeting on ANCDF	9	20	94	Memo
139	10	Correspondence	Interview with Steve Jones	9	20	94	Stment
140	10	Correspondence	Recent Study of M-55 Rocket	9	14	94	Letter
141	10	Correspondence	Response to Info Request Lettr	9	14	94	Letter
142	10	Correspondence	Request for Ext to Resp to NOD	9	9	94	Letter
143	10	Correspondence	Request for Ext to Resp to NOD	9	9	94	Letter
144	10	Correspondence	Follow-up / Subcommittee Wkgrp	9	8	94	Letter

145	10	Correspondence	Draft Risk Assessment-Anniston	8	30	94	Letter
146	10	Correspondence	Remedial Design Reports	8	29	94	Letter
147	10	Correspondence	Draft Cooperative Agreement	8	24	94	Letter
148	10	Correspondence	Mailing List for Umatilla	8	22	94	Letter
150	10	Correspondence	What if the DEQ & EPA issue a Final Permit?	8	12	94	Fax
151	10	Correspondence	Fact Sheets	8	9	94	Letter
152	10	Correspondence	Ext to Submit Resp to NOD #5	8	8	94	Letter
153	10	Correspondence	Response to USACMDA-HW Permit	8	8	94	Letter
154	10	Correspondence	Activity Summary	8	4	94	Letter
155	10	Correspondence	Validation Testing by RADIAN	8	3	94	Fax
156	10	Correspondence	RCRA Comments on Umatilla RODs	8	3	94	Memo
157	10	Correspondence	ADA Operable Unit Workplan	8	1	94	WkPlan
158	10	Correspondence	Carbon Filter System Summary	7	29	94	Letter
180	10	Correspondence	Items for Review/Files	7	29	94	Memo
159	10	Correspondence	Affitional Comments from Peer Review	7	28	94	Fax
160	10	Correspondence	Phone Conv - Risk Analysis	7	28	94	Memo
161	10	Correspondence	Records fo Decisions- Signed	7	27	94	Letter
162	10	Correspondence	Preliminary Rslt-RADIAN's Test	7	26	94	Fax
163	10	Correspondence	Task Order No. 64-93-10	7	25	94	Letter
164	10	Correspondence	Technical Conference	7	25	94	Letter
165	10	Correspondence	Public Assessment Survey/draft	7	6	94	Fax
166	10	Correspondence	Notification to Update Permit	7	5	94	Letter
167	10	Correspondence	2 Proposed Records of Decision	6	30	94	Memo
168	10	Correspondence	Testimony Before Senate Interim	6	29	94	Testimny
169	10	Correspondence	Ext Request Resp NOD #5 Delay	6	28	94	Memo
170	10	Correspondence	Systemization Process - Tooele	6	24	94	Letter
171	10	Correspondence	"Permitting Fact Sheet Draft 2	6	23	94	E-Mail
172	10	Correspondence	Miscellaneous Umatilla Issues	6	23	94	E-Mail
173	10	Correspondence	Risk Assessment Meeting	6	21	94	Notes
174	10	Correspondence	Meeting Notes-Advisory Comm	6	21	94	E-Mail
175	10	Correspondence	Risk Assessment Meeting	6	17	94	Fax/Agnda
176	10	Correspondence	Comments on Draft Fact Sheet#2	6	10	94	Memo
177	10	Correspondence	Selection of CDCAC Chairperson	6	9	94	Letter
178	10	Correspondence	GB Rocket Fire Incident Report	6	8	94	Letter
179	10	Correspondence	RCRA & Air Emissions Issues	6	7	94	Letter
181	10	Correspondence	Indirect HRA for TOCDF	5	26	94	Letter
182	10	Correspondence	Agency Reorganization	5	26	94	Letter
183	10	Correspondence	NOD Cover Letter	5	19	94	Memo
184	10	Correspondence	HW Permitting Status	5	13	94	Memo
185	10	Correspondence	Chem Demil Mtg/ Draft Comments	5	11	94	Memo
186	10	Correspondence	Chem Demil Mtg/ Draft Comments	5	6	94	Memo
187	10	Correspondence	Activity Summary	5	3	94	Letter
188	10	Correspondence	Cooperative Agreement/draft	4	29	94	Letter
189	10	Correspondence	List of References	4	28	94	Memo
190	10	Correspondence	Demil Permit Processing Mtg	4	20	94	Outline
191	10	Correspondence	Carbon Filter Sys Perf Rpt-Rev	4	19	94	Letter

192	10	Correspondence	Comments on 5X Test Plan	4	15	94	Letter
193	10	Correspondence	Assessment of Alt. Tech. Rprt	4	12	94	Letter
194	10	Correspondence	ADA at Umatilla Depot	4	12	94	E-Mail
195	10	Correspondence	UAD Budget Meeting	3	29	94	E-Mail
196	10	Correspondence	GB Release from the Common Stack	3	23	94	Report
197	10	Correspondence	NOD #5	3	15	94	Letter
18	10	Correspondence	Response to US Army's Plan to Incinerate	3	14	94	Letter
198	10	Correspondence	DEQ's Comments for the USACMDA	3	11	94	Memo
199	10	Correspondence	Follow-up Phone Convrstn w/ TMiller	3	3	94	Letter
200	10	Correspondence	Proposed Cleanup Plans Mtg	3	2	94	Agenda
201	10	Correspondence	Annual HW Generation Report	2	23	94	Letter
202	10	Correspondence	Chem Demil Cit Adv Comm Mtg	2	13	94	Fax/Agenda
203	10	Correspondence	EPA's Response to the NRC Report	2	9	94	E-Mail
204	10	Correspondence	Comments on the Exec Summary	2	9	94	Notes
205	10	Correspondence	NRC Report, review, comments	2	9	94	E-Mail
206	10	Correspondence	CEPPO Risk Mgmt Planning	2	7	94	Message
207	10	Correspondence	Chem Demil Cit Adv Comm Mtg	2	5	94	Fax/Agenda
208	10	Correspondence	Rev Com CSDP Air Filter Design	2	3	94	Memo
209	10	Correspondence	Permit Appl Review-3rd NOD	1	25	94	Letter
210	10	Correspondence	UAD Committee Follow-up	1	22	94	E-Mail
211	10	Correspondence	Umatilla Funding	1	21	94	E-Mail
212	10	Correspondence	UAD Citizens Advisory Comm	1	12	94	E-Mail
213	10	Correspondence	Chem Demil Cit Adv Comm/Roster	12	16	93	List
214	10	Correspondence	Notes from Umatilla Meeting	12	10	93	E-Mail
215	10	Correspondence	Overview of the COMPDEP Model	12	9	93	Notes
216	10	Correspondence	Facility Proj Management Plan	12	1	93	Memo
217	10	Correspondence	RCRA & Air Permit Applications	11	10	93	Letter
218	10	Correspondence	Chem Demil Wrkgrp Conf Call	11	9	93	E-Mail
219	10	Correspondence	Advisory Committee	11	9	93	E-Mail
220	10	Correspondence	CSEPP Fact Sheet	10	25	93	Memo
221	10	Correspondence	1992 TSDF Billing	10	13	93	E-Mail
222	10	Correspondence	Umatilla Conference Call	10	6	93	E-Mail
224	10	Correspondence	Public Info. Materials Requested	9	30	93	Letter
225	10	Correspondence	Current Stckples Deteriorating	9	23	93	Letter
226	10	Correspondence	Current Stckples Deteriorating	9	23	93	Letter
230	10	Correspondence	Statute Trtmnt Strge Disposal	8	13	93	Letter
231	10	Correspondence	Dioxin Emission Limits	8	11	93	Memo
232	10	Correspondence	EPA in Surrogate Trial Burn	8	9	93	Letter
233	10	Correspondence	Cost Pricing Proposals	8	5	93	Letter
234	10	Correspondence	Original Cooperative Agreement	7	22	93	Letter
235	10	Correspondence	Destroy Stockpile of Obsolete Chemicals	7	7	93	Letter
236	10	Correspondence	UAD - Cit Adv Comm	6	30	93	Memo
237	10	Correspondence	Notice of Permit App Defcncy	6	29	93	Letter
238	10	Correspondence	UMCDF Second NODs	6	22	93	Memo
239	10	Correspondence	Concerned Citizen, Nerve Gas	6	17	93	Letter
240	10	Correspondence	Destroy Stockpile	6	10	93	Letter

242	10	Correspondence	Chronology of the Project	6	4	93	Letter
243	10	Correspondence	Chem Weap Demil&Dis:GB&VX Camp	5	12	93	Overview
244	10	Correspondence	Request for Info.on Demil	5	5	93	Letter
245	10	Correspondence	NOD	4	21	93	Letter
246	10	Correspondence	Umatilla NOD Transmittal	4	11	93	Fax/Memo
247	10	Correspondence	Incinerator Project Status	3	29	93	Report
248	10	Correspondence	RCRA Deact Furnce Waste Drums	3	5	93	Mmo/Fax
249	10	Correspondence	Governor Authorization of CAC	2	22	93	Memo
250	10	Correspondence	Chronology of Project	1	22	93	Letter
251	10	Correspondence	List of Hazardous Substances	1	13	93	Letter
252	10	Correspondence	CSEPP	1	13	93	Letter
253	10	Correspondence	OVT at the JACADS	1	13	93	Memo
255	10	Correspondence	Project Status & Issue Report	1	3	93	Report
256	10	Correspondence	Finding Funds 4 Tribe Involvmnt	11	30	92	E-Mail
257	10	Correspondence	Met Station	11	20	92	E-Mail
258	10	Correspondence	Open Burning/Open Detonatn Pit	11	20	92	E-Mail
446	10	Correspondence	Chem Stckpl Disp Sys	11	4	92	Review
259	10	Correspondence	Sumbittal of Clsre Pln, Phone	10	2	92	Summary
1031	10	Correspondence	RCRA Trial Burn for Liquid Incin.	10	1	92	Letter
260	10	Correspondence	NOD	9	10	92	Letter
261	10	Correspondence	Fee Adjustment	8	25	92	Letter
262	10	Correspondence	Review & Comments Review	8	22	92	Letter
263	10	Correspondence	Wipe Testing for Furnace	7	21	92	Chart
264	10	Correspondence	Clean-up/Closure	7	20	92	E-Mail
265	10	Correspondence	June 1992 RCRA Closure Plan	7	7	92	Memo
266	10	Correspondence	Cleanup of Popping Furnace	7	7	92	E-Mail
267	10	Correspondence	Revised Schedule for Clsre Doc.	5	8	92	Letter
268	10	Correspondence	Metereorological Monitoring Station Setting	4	1	92	Report
269	10	Correspondence	Public Meeting	3	18	92	E-Mail
270	10	Correspondence	Postpone Clsre Pln, Phone Use	3	3	92	Summary
271	10	Correspondence	Correction of Address	2	11	92	Letter
272	10	Correspondence	IRZ\PAZ Population	2	6	92	Memo
273	10	Correspondence	Nerve Agent Incin. Questions	1	30	92	Letter
274	10	Correspondence	Incineration Project	1	21	92	E-Mail
275	10	Correspondence	Dept. Position on Cndcting brn	1	10	92	Letter
276	10	Correspondence	Agencies Final Comments on Part B Permit	1	2	92	Memo
277	10	Correspondence	Comments on Draft NOD	12	5	91	Memo
278	10	Correspondence	Changing Furnace Burnout Proc	11	22	91	Letter
279	10	Correspondence	Burnout Rationale	11	13	91	Fax/Letter
280	10	Correspondence	Air Contaminant Dschrge Prmt	10	22	91	Letter
281	10	Correspondence	Amendment to Closure Plan	10	22	91	Letter
282	10	Correspondence	Burnout & Removal of Furnace	9	30	91	Memo
283	10	Correspondence	EMSL TA for XRF	8	5	91	Letter
284	10	Correspondence	Land Use Compatibility Statmnt	7	31	91	Trnsmttl
285	10	Correspondence	Ancillary Support Projects	6	5	91	Letter
286	10	Correspondence	Ancillary Support Construction	5	27	91	Letter

287	10	Correspondence	Air Contaminant Discharge	5	23	91	Letter
288	10	Correspondence	JACADs Trl Brn POHCs Dcn Soltn	5	9	91	Memo
289	10	Correspondence	Air Containment, Air Pollutn	5	6	91	Letter
290	10	Correspondence	NON, installation of Tank	4	16	91	Letter
292	10	Correspondence	JACADS Liquid Injection	3	4	91	Memo
293	10	Correspondence	Part B HW, Offcr of Installtn	2	21	91	Letter
294	10	Correspondence	Signatories on RCRA Permit	1	28	91	Letter
295	10	Correspondence	Lbility Fed Gov Question	12	13	90	Memo
296	10	Correspondence	Fed gov Lblty, Umatilla	12	4	90	Letter
297	10	Correspondence	Umatilla Depot Incinerator	11	19	90	Memo
298	10	Correspondence	Part B Application Change	11	5	90	Letter
299	10	Correspondence	Umtla Dpt Incin., Pblc Prtctn	10	29	90	Letter
300	10	Correspondence	Changes to RCRA Part B Permit	10	17	90	Letter
301	10	Correspondence	RCRA Prmt App CSDP	10	9	90	Letter
302	10	Correspondence	Permit App UMDA	10	5	90	Letter
303	10	Correspondence	Sampling Plan UAD Closure Plan	9	26	90	Summary
304	10	Correspondence	Approval of UAD Closure Plan	9	18	90	Summary
305	10	Correspondence	RCRA Permit Appl Enclosed	8	27	90	Letter
306	10	Correspondence	Visit to JACADs	8	23	90	Transmttl
307	10	Correspondence	Request of OR Emerg. Mngment	8	21	90	E-Mail
308	10	Correspondence	Amendment to Closure Plan	7	26	90	Letter
309	10	Correspondence	Revisions to Closure Plan	7	26	90	Letter
310	10	Correspondence	Addendum to UMDA Furnace Clsre	6	29	90	Letter
311	10	Correspondence	RCRA/$Fund Overlap	6	27	90	Memo
312	10	Correspondence	Issues to be Solved in Closure	6	11	90	Letter
313	10	Correspondence	US - Soviet Weapons Reduction	6	6	90	Memo
314	10	Correspondence	Popping Furnace Closure Schdl	5	22	90	Memo
315	10	Correspondence	Followup Info. from Phone Conversation	5	15	90	Letter
316	10	Correspondence	4/10/90 National ICCB Meeting	5	9	90	Transmittal
317	10	Correspondence	Conference call Chem Warfare Agent	4	20	90	Memo
318	10	Correspondence	UAD Popping Furnace ClosurePln	4	18	90	Letter
319	10	Correspondence	Revised CSDP Schedules	4	17	90	Memo
320	10	Correspondence	National ICCB Meeting	4	10	90	Memo
321	10	Correspondence	ICCB Meeting attendance	3	28	90	Transmittal
322	10	Correspondence	JACADs RCRA Permit	3	15	90	Memo
323	10	Correspondence	Revised Closure Plan for Deactvtn Furnance	3	9	90	Letter
324	10	Correspondence	Tank Integrity Assessment	3	6	90	Letter
397	10	Correspondence	DEQ included in Committee	3	6	90	Letter
325	10	Correspondence	RCRA Permit Document Request	2	12	90	Letter
326	10	Correspondence	RCRA Part B App. changes Requested	2	9	90	Letter
327	10	Correspondence	Phone Use Rpt, Info Closure Plan	1	17	90	Summry
328	10	Correspondence	Compliance Order HW-ER-89-67	1	5	90	Letter
329	10	Correspondence	Small-arms Firing Range	12	18	89	Letter
330	10	Correspondence	Deactivation Furnace Closure	12	1	89	Letter
331	10	Correpsondence	UST Leak Testing Certification	11	17	89	Letter
332	10	Correspondence	Telephone/Fax #'s for POCs	11	14	89	Memo/Fax

333	10	Correspondence	Certifications & Tank Integrity	11	3	89	Letter
334	10	Correspondence	Deny RCRA Permit	11	1	89	Letter
336	10	Correspondence	Notice of Final Determination	11	1	89	Agremnt
337	10	Correspondence	Tooele Prmt Word Disks	10	19	89	Memo
338	10	Correspondence	Permits/AQ, HW & RCRA Part B	10	4	89	Memo
339	10	Correspondence	Deadline Extension-Thank You	9	28	89	Letter
340	10	Correspondence	Interagency Agremnt for UAD	9	19	89	Memo
341	10	Correspondence	Interagency Agreement	9	19	89	Letter
342	10	Correspondence	Deadline Extension-Granted	9	14	89	Letter
343	10	Correspondence	Apprval of Schedule for Tank	9	8	89	Letter
344	10	Correspondence	Proposed RCRA Permit Denial	8	30	89	Letter
346	10	Correspondence	Deactivation Furnance	7	7	89	Fax
347	10	Correspondence	APE 1236 Deactivation Furnace	5	25	89	Letter
348	10	Correspondence	Umatilla IAG	5	25	89	Letter
349	10	Correspondence	Remdl Invest. of Explsv Wshout	5	11	89	Letter
350	10	Correspondence	Addt'l Requirements for Incin.	4	21	89	Letter
351	10	Correspondence	Nrve Agnt Incin. HW Facility	4	17	89	Intrmemo
352	10	Correspondence	Mailing List for HW Incin Prmts	3	15	89	Letter
353	10	Correspondence	Incenerator Project.	3	8	89	Letter
354	10	Correspondence	RCRA Part B Completion	3	8	89	Letter
355	10	Correspondence	Conference Call on 03-06-89	2	28	89	Memo
356	10	Correspondence	Incin. Final Operating Permits	2	27	89	Letter
357	10	Correspondence	Notice of Deficiency Warning	2	12	89	Report
358	10	Correspondence	Cooperating Agencies Meeting	2	10	89	Letter
359	10	Correspondence	Review of DOD's Instruction	2	2	89	Letter
360	10	Correspondence	Public Scoping Meeting	2	2	89	Letter
361	10	Correspondence	RCRA Part B - OB/OD UMDA	1	23	89	Memo
362	10	Correspondence	USTs at Umatilla	1	17	89	E-Mail
363	10	Correspondence	OB/OD Completeness	1	9	89	Letter
364	10	Correspondence	OB/OD Completeness Check, Phone	1	6	89	Summary
365	10	Correspondence	Permitting Info. & Nonprmtting	1	3	89	Memo
366	10	Correspondence	Tooele Part B Review Spprt Doc	12	29	88	Memo
367	10	Correspondence	Completeness Review (Part B)	12	29	88	Letter
368	10	Correspondence	Popping Furnace Deadline Appl	12	20	88	Memo
369	10	Correspondence	Revw of RCRA Permit App.	12	20	88	Memo
370	10	Correspondence	Popping Furncace & OB/OD Act	12	2	88	Letter
371	10	Correspondence	CSDR Team EPA/State Review	11	28	88	Notes
372	10	Correspondence	CSDP Tentative RCRA review	11	3	88	Schedule
373	10	Correspondence	Incomplete Applications	9	30	88	Letter
375	10	Correspondence	Proposed Nerve Agent Inc Wkgrp	9	16	88	Letter
376	10	Correspondence	Proposed Nerve Agent Inc Wkgrp	9	16	88	Letter
377	10	Correspondence	Funding Request-Director's Ltr	9	15	88	Memo
378	10	Correspondence	Thank You Letter to FHanson	8	26	88	Letter
379	10	Correspondence	Deactivation Furnace Upgrade	8	24	88	Fax
380	10	Correspondence	OAR for Aquatic Toxicity Test	8	19	88	Letter
381	10	Correspondence	Appoint two Representatives	8	18	88	Letter

382	10	Correspondence	Local Intergov't Consultion Board	8	12	88	MemoLttr
383	10	Correspondence	Inspection Visit	7	6	88	Memo
384	10	Correspondence	Full-Time Person Needed	6	30	88	Letter
385	10	Correspondence	Disposal of Nerve Agents	6	30	88	Letter
386	10	Correspondence	Final Minutes to 2-18-88 mtg	6	17	88	Memo
387	10	Correspondence	Installation Restoration Program Plan	6	10	88	Letter
388	10	Correspondence	Invite to Inspection	5	16	88	Memo
389	10	Correspondence	Conference Call and Info.	5	9	88	Memo
390	10	Correspondence	Permitting of Popping Furnace	4	11	88	Memo
391	10	Correspondence	Review Comments from -	3	24	88	Letter
393	10	Correspondence	Army ROD & Permit Schedules	3	2	88	Memo
394	10	Correspondence	Emergency Response Concept Plan	2	24	88	Letter
395	10	Correspondence	Disposal of Chemical Munitions	2	17	88	Letter
396	10	Correspondence	EPA Review of CDC Proposal	2	1	88	Letter
398	10	Correspondence	Nonrequirement of Permit	12	30	87	Letter
400	10	Correspondence	Incinerability of Impurities	12	16	87	Memo
401	10	Correspondence	Emmisions Test Report for CAMDs	12	14	87	Report
402	10	Correspondence	Pasadena,CA CAD Workgroup Mtg	11	12	87	Notes
404	10	Correspondence	Protecting Public Health	11	6	87	Notes
405	10	Correspondence	Demil of Nerve Agent Concerns	10	28	87	Memo
406	10	Correspondence	Meeting w/Army, 11/12-13/87	10	16	87	Memo
407	10	Correspondence	Materials on Perceived Rsk	10	8	87	Letter
408	10	Correspondence	Tooele Report & NOD Comparison	10	6	87	Letter
409	10	Correspondence	Released Reports on Incidents CAMD	10	5	87	Memo
410	10	Correspondence	Interim Safety Report	10	2	87	Letter
411	10	Correspondence	Mailing List Addition	9	23	87	Letter
412	10	Correspondence	Nerve Agent Incidents Reports	9	22	87	Memo
413	10	Correspondence	Protecting Public Health	9	16	87	Notes
414	10	Correspondence	Chem Incid. JACADs, CAMDs Toole	9	10	87	Memo
415	10	Correspondence	Final RCRA Fac. Investigation	7	27	87	Report
416	10	Correspondence	Emission & Exposure Levels	7	23	87	Memo
417	10	Correspondence	Schedule for Mtg. Aug. 5	7	21	87	Letter
418	10	Correspondence	Nerve Gas Demilitarization Note	7	8	87	Notes
419	10	Correspondence	Mailing List	6	30	87	Memo
420	10	Correspondence	Barry J Davis, Hearing	6	4	87	Tstmny
421	10	Correspondence	UAD Events Schedule Nrve Incin	6	0	87	Schdle
422	10	Correspondence	Workgroup for EIS	5	13	87	Letter
423	10	Correspondence	SWMU Investigation Meeting Sum	5	11	87	Transmittal
424	10	Correspondence	Igloo Monitoring	5	8	87	Letter
425	10	Correspondence	Procsing Fee HW Incin App	4	24	87	TransAdv
426	10	Correspondence	Incinerator Prmt Act Schedule	4	15	87	Memo
427	10	Correspondence	CDC Mtg, Safe Expsre Levels	4	9	87	Letter
428	10	Correspondence	Health Aspects of Emerg. Rspnse	4	8	87	Letter
429	10	Correspondence	Register Community Position	4	7	87	Letter
430	10	Correspondence	Response to House of Rep Lttr	3	31	87	Letter
431	10	Correspondence	Invstgtn Prpsl Unaccptble	3	23	87	Letter

432	10	Correspondence	Chem. Weapns disposal, mtg	3	23	87	Letter
433	10	Correspondence	Wrkgrp Cnfrnce Call, Trail Burn	3	23	87	Letter
434	10	Correspondence	Participation in Pblc Hearing	3	18	87	Letter
435	10	Correspondence	Addt'l Info to Hearing	3	16	87	Letter
436	10	Correspondence	3/25-27 Mtg. RCRA Prmts Demil	3	10	87	Memo
437	10	Correspondence	Confidentlty Claim Convstn	3	6	87	Letter
438	10	Correspondence	Analysis of Database	3	6	87	Memos
439	10	Correspondence	Investigation Report Chem Incident	3	4	87	Report
440	10	Correspondence	Disposal of Lethal Chem Agents	2	4	87	Letter
441	10	Correspondence	Briefing Concrning GB Release	2	4	87	Memo
442	10	Correspondence	DOD Draft Instruction Comments	1	14	87	Memo
443	10	Correspondence	Response to October 2, 1986	1	12	87	Letter
444	10	Correspondence	Review of Attachment D-2	1	5	87	Memo
445	10	Correspondence	NOD Tooele South CSD	1	5	87	Letter
449	10	Correspondence	Groundwater Monitoring	12	11	86	Letter
450	10	Correspondence	Revised "Model" NOD	12	10	86	Memo
451	10	Correspondence	CDC Exposure Limit/draft	12	8	86	Letter
452	10	Correspondence	Notes from Phone Conversation	12	2	86	Notes
453	10	Correspondence	HW Print Fee	11	17	86	Memo
454	10	Correspondence	Conf Call on NOD for Demil Inc	11	14	86	Memo
455	10	Correspondence	"Model" NOD	11	7	86	Memo
456	10	Correspondence	Fed. Facilities Compliance	9	23	86	Letter
457	10	Correspondence	Draft Prgrammtc Env. Impct	9	23	86	Letter
458	10	Correspondence	RCRA Part B Permit	9	18	86	Letter
459	10	Correspondence	Secrecy Agreement	8	29	86	Agreemnt
460	10	Correspondence	HW Inventory of Sites	8	5	86	Letter
461	10	Correspondence	Federal Fac Compliance Issues	7	9	86	Memo
462	10	Correspondence	Proposed Chem Agent Inc Meetng	6	12	86	Letter
463	10	Correspondence	Formation of Prmt Wrtr Wrkgrp	6	6	86	Memo
465	10	Correspondence	Storage/Trtmnt/Disp - GB,VX,HD	4	18	86	Memo
466	10	Correspondence	Mandating Disposal Stckple	3	28	86	Letter
467	10	Correspondence	Army Concept Plan Briefing	3	24	86	Letter
468	10	Correspondence	"Environmental Significance"	11	13	85	Memo
469	10	Correspondence	NOV Response	10	29	85	Letter
470	10	Correspondence	DOD RCRA Incineration Issues	10	25	85	Memo
471	10	Correspondence	Requirements for Inspectors	10	17	85	Letter
472	10	Correspondence	What to do w/HW at the Depot	10	17	85	Memo
473	10	Correspondence	Quarterly Rprt of HW Storage	10	17	85	Memo
474	10	Correspondence	Information Sheet	10	10	85	Letter
475	10	Correspondence	Response to NOV	9	23	85	Letter
476	10	Correspondence	Request Furnsh Delvry Status	8	15	85	Letter
477	10	Correspondence	Attachment 2, Part B Checklist	7	22	85	Chcklist
478	10	Correspondence	Signatories to DOD Prmt Appl	7	3	85	Letter
479	10	Correspondence	Consent Agreement& Final Order	6	24	85	Letter
480	10	Correspondence	Consent Agreement & Fnl Order	6	10	85	Letter
481	10	Correspondence	Prog Implementation Gudnc Syst	2	11	85	Memo

482	10	Correspondence	M55 Chemical Rockets Storage	2	4	85	Letter
483	10	Correspondence	Notes of RCRA Methods & QA Act	2	1	85	Memo
484	10	Correspondence	Last 6 mo Summary on GB & VX	12	14	84	Letter
485	10	Correspondence	Disposal of M55 Rockets	6	18	84	Letter
486	10	Correspondence	Proposed Annual License Fee	3	11	83	Letter
487	10	Correspondence	Rescinding Permit Action	4	10	81	Letter
488	10	Correspondence	Proposed Meterological Data	0	0	0	Fax
489	10	Correspondence	Nerve Agnt Incin. Proj. Status	0	0	0	Report
1655	12	Other State Docs	Public request for comments from ADEM	11	8	96	PubNotice
1654	12	Other State Docs	ADEM Completeness letter	11	7	96	Letter
1425	12	Other State Docs	TOCDF Compliance	11	1	96	Letter
1423	12	Other State Docs	Requesting written opinion of TOCDF compliance	10	17	96	Letter
1422	12	Other State Docs	JACADS-GB Crystalization	9	27	96	Letter
1421	12	Other State Docs	JACADS-GB Crystalization	9	9	96	Letter
1420	12	Other State Docs	JACADS-GB Crystalization	9	6	96	Letter
1803	12	Other State Docs	EPA HQ Rev.of Armys proposal of HCl acute Tox.	9	4	96	Letter
1852	12	Other State Docs	JACADS Class 2 Permit Mod Approval	5	28	96	Letter
1534	12	Other State Docs	JACADS HVC Filter Change-Out Tests	5	23	96	Letter
1535	12	Other State Docs	Waste Analysis Plan/Notice of Deficiency	5	15	96	Letter
1475	12	Other State Docs	MPF Surrogate Trial Burn	4	18	96	Memo
1533	12	Other State Docs	Notice of Violation - TOCDF	4	15	96	Letter
1942	12	Other State Docs	JACADS request for additional information	9	6	95	Letter
1802	12	Other State Docs	Pollution Abatement Filter System (PFS) Mod Re	7	20	95	Letter
1383	12	Other State Docs	JACADS - Determination of Violation	3	13	95	Report
1941	12	Other State Docs	JACADS GB ReleaseNotification to EPA R7	4	4	94	Letter
1981	15	CTUIR	Responses to CTUIR comments on Final EIS	11	8	96	Report
1977	15	CTUIR	AQ dispersion and deposition review and eval	11	5	96	Report
1978	15	CTUIR	Eval of combustion by-products Task 6	11	5	96	Report
1979	15	CTUIR	Eval of Monitoring Locations Task 8.2 & 9	11	5	96	Report
1980	15	CTUIR	Interim final eval of chem fate to transport	11	5	96	Report
1229	15	CTUIR	MOA between Army and CTUIR	10	17	96	MOA
1804	15	CTUIR	CTUIR's EIS Comments	7	24	96	Letter
1594	15	CTUIR	Response to 6/7/96 letter to LMarsh	6	24	96	Letter
1593	15	CTUIR	Support for Sen. Ford Amendment to Defense	6	18	96	Letter
1592	15	CTUIR	Extension of public comment period...	6	7	96	Letter
1629	15	CTUIR	Response to 4/26/96 letter	5	26	96	Letter
1536	15	CTUIR	EPA/Tribes Scope of work	4	26	96	Outline
1567	15	CTUIR	CTUIR/SSRP Follow-up on DEQ Briefing to EQC	4	26	96	Letter
1853	15	CTUIR	Transmittal of draft permit diskettes	4	16	96	Memo
1854	15	CTUIR	Unable to attend EQC Briefing on 4/12/96	4	12	96	Letter
1478	15	CTUIR	Response to moratorium request	4	1	96	Letter
1388	15	CTUIR	Response to Feb 15,1996 letter from DSampson	3	19	96	Letter
1387	15	CTUIR	CTUIR/SSRP Rev. Draft EIS Comments	3	14	96	Letter
1236	15	CTUIR	Comment on CTUIR Feb 15,96 Letter	2	23	96	Letter
1237	15	CTUIR	Objection to Umatilla Indians' Petition	2	23	96	Letter
1235	15	CTUIR	Comments by the Tribes - Incinerator	2	21	96	Letter

1234	15	CTUIR	Mayors Response to Moratorium Request	2	16	96	Letter
1161	15	CTUIR	Request for Assistance in Estab. Moratorium	2	15	96	Letter
1162	15	CTUIR	Proposal for Coord effort to rectify Defic.	2	15	96	Letter
1163	15	CTUIR	Statement of Armand Minthorn	2	15	96	Statement
1164	15	CTUIR	News Release	2	15	96	NewsRelease
1165	15	CTUIR	Statement of Donald Sampson	2	15	96	Statement
1386	15	CTUIR	News Release Material From CTUIR	2	15	96	NewsRls
1066	15	CTUIR	Response to 1-19-96 letter	2	6	96	Letter
1477	15	CTUIR	Quarterly Leaker Reports For UAD	1	23	96	Letter
1054	15	CTUIR	Follow up to 1-11-96 EQC re Issues	1	19	96	Letter
1476	15	CTUIR	CTUIR/SSRP Comments on EPA Military Munitions	1	8	96	Letter
1055	15	CTUIR	Invitation to meet	1	3	96	Letter
1056	15	CTUIR	Corrective action authorization	12	8	95	Letter
490	15	CTUIR	Final Rule HW Prog. Revision	11	28	95	FederlReg
491	15	CTUIR	Working Relationship w/ CTUIR	11	14	95	Letter
1037	15	CTUIR	Columbia Basin Salmon Policy	11	9	95	Policy
492	15	CTUIR	HW Management Program Revisions	11	8	95	Letter
1385	15	CTUIR	Minutes from meeting with CTUIR	11	1	95	Letter
493	15	CTUIR	Explain Chem Weapons Incin.	10	26	95	Article
494	15	CTUIR	Nerve & Blister Agents	10	17	95	Memo
1384	15	CTUIR	Triabal Advisory Committee Outreach	9	29	95	Letter
1205	15	CTUIR	Comments on Draft Pre-trial Burn Work Plan	8	22	95	Letter
495	15	CTUIR	Demil Risk Assessment	8	21	95	Letter
496	15	CTUIR	Info. Request at 5/30/95 Meeting;Followup	8	14	95	Memo
497	15	CTUIR	Rsk Asses. Prpsd Incnrtn Cmplx	5	12	95	Letter
1160	15	CTUIR	Proposed Agenda Items for May 30, 1995 Mtg	5	12	95	Letter
1159	15	CTUIR	Response to Draft Risk Assessment Work Plan	4	24	95	Letter
498	15	CTUIR	CTUIR Paper on Risk Asses.	3	30	95	Report
1158	15	CTUIR	Colubia Basin Salmon Policy	3	8	95	Report
1233	15	CTUIR	Umatilla Tribes contact	12	28	92	Email
1232	15	CTUIR	Comments on CRCS and DEIS	11	9	92	Letter
499	15	CTUIR	Prmnnt Rules to Spill Rules	4	0	87	Memo
1231	15	CTUIR	Treaty w/Walla Walla,Cayuse,and Umatilla Tribe	0	0	0	Report
1479	20	State Permits	ANCDF Draft Permits	11	3	95	Letter
500	20	State Permits	CSDP	7	18	95	Air Prmt
1672	20	State Permits	Major Issues for review of ANAD Subpart B	3	20	95	Report
501	20	State Permits	ANCDF RCRA Application Sec D-9	6	1	94	ApplSec
502	20	State Permits	Tooele Depot S. Final Permit	7	18	89	Memo
508	20	State Permits	Tooele Permit/final 7/89	7	1	89	Permit
509	20	State Permits	Tooele Permit/draft 4/89	4	7	89	Permit
503	20	State Permits	Demil Interim Draft Permit	3	2	89	Memo
511	20	State Permits	Tooele Permit/attachments 1-3	2	17	89	Attach
512	20	State Permits	Tooele Permit/attachments 4-8	2	17	89	Attach
513	20	State Permits	Tooele Permit/attachment 9	2	17	89	Attach
514	20	State Permits	Tooele Permit/attachments 9-10	2	17	89	Attach
515	20	State Permits	Tooele Permit/attachments11-13	2	17	89	Attach

504	20	State Permits	Tooele Army Depot/draft	2	14	89	Permit
510	20	State Permits	Tooele Permit 8/89	2	0	89	Permit
	20	State Permits	RCRA & HW Permit Application	9	1	88	Applictn
505	20	State Permits	JACADS Permit Modification	5	27	88	Permit
506	20	State Permits	Major Operating Conditns Deactvtn Furnance	0	0	0	Table
507	20	State Permits	JACADS Permit	0	0	0	Permit
516	20	State Permits	Tooele Permit/attachments14-21	0	0	0	Attach
1987	21	Other State NODs	Pine Bluff Arsenal response to NODs	8	12	96	NODs
1855	21	Other State NODs	PBCDF NOD for Part B Application	6	7	96	Letter
1480	21	Other State NODs	Fourth NOD Comments ANCDF RCRA/Air App.	3	7	96	Letter
1505	21	Other State NODs	ANCDF Draft RCRA Change Pages	6	19	95	Report
517	21	Other State NODs	Attached FYI, Fnl Sub X Comments, Notes, etc	10	12	94	Rvw Cmmnts
518	21	Other State NODs	Preliminary Design Review	11	18	89	Report
519	21	Other State NODs	Documents w/second NODs	11	18	87	Memo w/L
520	21	Other State NODs	Anniston Army Depot	11	3	87	Letter
2329	21	Other State NODs	NOD for Tooele CSDP, Summary of Responses	10	15	87	Report
521	21	Other State NODs	CSDS Onsite Alternative	10	15	87	Letter
522	21	Other State NODs	Tooele NOD Summary of Response	8	27	87	Report
523	21	Other State NODs	Matrix of NODs Lxngtn,Nwprt,Tle	3	18	87	Memo
524	21	Other State NODs	DOD Chem. Agent Munitions Prmt	1	21	87	Letter
525	21	Other State NODs	Utah NOD Comments for Dept Army	11	15	86	Report
1829	30	Army Reports	Exec.Summary-Alternative Technology Eval. Rpt	9	9	96	Report
1830	30	Army Reports	UMCDF Phase 1 Quantitative Risk Assess.	9	0	96	Report
1983	30	Army Reports	Probablistic seismic hazard assessment UMCDF	9	0	96	Report
1828	30	Army Reports	Tooele HVAC Agent Leak Report	8	28	96	Report
1982	30	Army Reports	Seismic Fragilities of Structures & Equip.	8	0	96	Report
1856	30	Army Reports	Interim Status Assessment for Chem Demil	4	15	96	Report
1827	30	Army Reports	Draft-UMCDF Phase 1 Quantitative Risk Assess.	4	0	96	Report
1510	30	Army Reports	JACADS RCRA Wkly Feed/Incident Rpt 1/21-27/96	2	14	96	Report
1833	30	Army Reports	Surrogate Trial Burn Report for LIC1	11	29	95	Report
1834	30	Army Reports	Surrogate Trial Burn Report for LIC1-Appndx A-	11	27	95	Report
1835	30	Army Reports	Surrogate Trial Burn Report for LIC1-Appndx I-	11	27	95	Report
1390	30	Army Reports	Ton Container Survey Analysis of HD @ APG	10	0	95	Report
528	30	Army Reports	Off-Site Meterolgcl Data Set	4	3	95	Report
1409	30	Army Reports	RCRA trial burn reports-JACADS-Agent GB	3	0	95	Report
726	30	Army Reports	M55 Rocket Storage Life Eval	1	23	95	Report
530	30	Army Reports	M55 Rocket Storage Life Eval	12	0	94	Report
1268	30	Army Reports	Rpt of 11-19-94 ECR "B" Incident	12	0	94	Report
1166	30	Army Reports	Estimated Control Limits... - Final Draft	11	0	94	Report
1167	30	Army Reports	Appendix H: UAD Activity Site Report	11	0	94	Report
727	30	Army Reports	Health Risk Assessment	9	12	94	Report
531	30	Army Reports	60% Cntmnted Soil Ammntn Dmltn	9	0	94	Report
532	30	Army Reports	60% Cntmntd Soil Ammntn Demltn	9	0	94	Report
533	30	Army Reports	Meteorological Monitoring Plan	7	15	94	Report
534	30	Army Reports	Summary Cryofracture Process	5	1	94	Report
1428	30	Army Reports	Alternative Demil Tech Report	4	11	94	Report

1427	30	Army Reports	Alternative Demil Tech Report - Executive Summ	4	11	94	Report
529	30	Army Reports	1993 Annual Report of RCRA NON	3	5	94	Report
1267	30	Army Reports	Liquid Incinerator Slag Mngmnt System Report	1	21	94	Report
535	30	Army Reports	Future Uses of the CAMDS:	12	1	93	Report
1265	30	Army Reports	Site Monitoring Concept Study	9	15	93	Report
536	30	Army Reports	Ass of Carbon Fltr System Perf	9	1	93	Report
1266	30	Army Reports	Assessment of Carbon Filter System Performance	9	0	93	Report
537	30	Army Reports	Data Ass Carbon Fltr Sys Perf	8	1	93	Report
1263	30	Army Reports	Health Risk Assessment No. 42-21-M1X6-93	7	8	93	Report
538	30	Army Reports	Physical & Chemical Integrity	7	1	93	Report
539	30	Army Reports	Eval HD Projectile:JACADS OVT	5	1	93	Report
1826	30	Army Reports	Summary Evaluation-JACADS Ops Verification Tes	5	0	93	Report
541	30	Army Reports	Brn w/ HD Feed Liqd Incin	4	6	93	Report
542	30	Army Reports	Brn w/ HD Feed Liqd Incin	4	6	93	Report
543	30	Army Reports	Brn w/ HD Feed Liqd Incin	4	6	93	Report
544	30	Army Reports	Brn w/ HD Feed Liqd Incin	4	6	93	Report
545	30	Army Reports	Brn w/ HD Feed Liqd Incin	4	6	93	Report
546	30	Army Reports	Brn w/ HD Feed Liqd Incin	4	6	93	Report
547	30	Army Reports	Brn W/ HD Feed Liqd Incin	4	6	93	Report
548	30	Army Reports	Brn w/ HD Feed Liqd Incin	4	6	93	Report
549	30	Army Reports	Brn W/ HD Feed Liqd Incin	4	6	93	Report
1262	30	Army Reports	Health Risk Assessment No. 42-21-M1BE-93	4	6	93	Report
540	30	Army Reports	Eval HD Ton Cntnr:JACADS OVT	4	0	93	Report
	30	Army Reports	Health Risk Assess. Inhalation, Combustion	4	0	93	
550	30	Army Reports	Demo Burn Metal Parts Furnance W/ HD	3	1	93	Report
551	30	Army Reports	Demo Burn Metal Parts Furnance W/ HD	3	1	93	Report
552	30	Army Reports	Demo Burn Metal Parts Furnance w/ HD	3	1	93	Report
553	30	Army Reports	Demo Burn Metal Parts Furnance w/ HD	3	1	93	Report
554	30	Army Reports	Demo Burn Metal Parts Furnance w/ HD	3	1	93	Report
555	30	Army Reports	Demo Burn Metal Parts Furnance w/ HD	3	1	93	Report
556	30	Army Reports	Demo Burn Metal Parts Furnance w/ HD	3	1	93	Report
557	30	Army Reports	Demo Burn Metal Parts Furnance w/ HD	3	1	93	Report
558	30	Army Reports	Demo Burn Metal Parts Furnance w/ HD	3	1	93	Report
559	30	Army Reports	Demo Burn Metal Parts Furnance w/ HD	3	1	93	Report
560	30	Army Reports	Results Trl Brn Metal Parts Furnance W/ HD	3	1	93	Report
561	30	Army Reports	Extrtaction Labs Ntbk/Bench Nt	3	1	93	Report
562	30	Army Reports	Trl Burn Rprt HD-MPF JACADS	3	1	93	Report
563	30	Army Reports	Dmstratn Tst Brn Thrml Dstrctn	2	0	93	Report
1389	30	Army Reports	RCRA Trial Burn Report for JACADS - HD	12	16	92	Report
564	30	Army Reports	Evaluation of VX Rocket Test:	11	0	92	Report
565	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
566	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
567	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
568	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
569	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
570	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report

571	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
572	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
573	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
574	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
575	30	Army Reports	Trl Brn w/ VX Feed Liqd Incin JACADS	10	6	92	Report
576	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
577	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
578	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
579	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
580	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
581	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
582	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
583	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
584	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
585	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
586	30	Army Reports	Trl Brn & TSCA Demo DFS w/ M55 VX Rckts	10	6	92	Report
1261	30	Army Reports	Disposal of Chemical Agents & Munitions	10	0	91	Report
587	30	Army Reports	Draft DOD on Env Response Closing Miltry Bse	9	23	91	Rpt/Memo
	30	Army Reports	Health Risk Asses. Inhalation Risk, Incin.	9	0	91	
588	30	Army Reports	Evaluation /GB Rocket Campaign	7	25	91	Rpt/Memo
589	30	Army Reports	Trial Burn Rslt-JACADS-LIC,GB	6	17	91	Report
590	30	Army Reports	Eval GB Rckt Cmpn:JACADS OVT	6	1	91	Report
591	30	Army Reports	Monitoring Concept Plan	4	5	91	Report
593	30	Army Reports	Rslt Trl Brn Liquid Incin	12	10	90	Report
592	30	Army Reports	Rslt Trl Brn Liquid Incin	12	5	90	Report
1260	30	Army Reports	Chemical Stockpile Disposal Program	10	0	90	Report
594	30	Army Reports	OVT Plan for the JACADS Vol.1	2	9	90	Report
595	30	Army Reports	OVT Plan for the JACADS Vol.2	2	9	90	Report
1259	30	Army Reports	Disposal of Chemical Agents & Munitions	2	0	90	Report
526	30	Army Reports	Requirement of Report of HW Managemnt Actvts	1	4	90	Letter
527	30	Army Reports	ST Demil During 1st Quarter FY90	1	2	90	Memo
596	30	Army Reports	OVT Directive for the JACADS	3	1	89	Report
597	30	Army Reports	CAMDS Filter Design Panel	4	0	88	Report
598	30	Army Reports	CSDP/Implementaion Plan	3	15	88	Report
599	30	Army Reports	Elmts Prcss Dsgn Criteria CSDP	11	13	87	Report
600	30	Army Reports	Eval CAMDS DFS M55 Rckt Incin	10	1	87	Report
601	30	Army Reports	Eval CAMDS DFS M55 Rckt Incin	10	1	87	Report
602	30	Army Reports	Eval CAMDS DFS M55 Rckt Incin	10	1	87	Report
603	30	Army Reports	Poll. Abtmnt Sys Ass CAMDS LIC	8	1	87	Report
604	30	Army Reports	Rsk Analysis Contnued Strge of Chem Muntns	8	0	87	Report
605	30	Army Reports	Rsk Analysis Onsite Dspsl of Chem Muntns	8	0	87	Report
606	30	Army Reports	Rsk Anlysis Chem Mntns Regnl or Natl Sites	8	0	87	Report
607	30	Army Reports	CAMDS Follow-up Ass. Panel	7	24	87	Report
608	30	Army Reports	Air Pollution Control Syst Ass	6	1	87	Report
609	30	Army Reports	Technical Investigation Board	3	30	87	Report
610	30	Army Reports	CSDP Supplement	3	1	87	Report

611	30	Army Reports	Tech. Ass. Determination Chem	1	1	87	Report
612	30	Army Reports	Nerve Agent Demil Project	10	28	86	Report
613	30	Army Reports	5X Thermal Task Report	9	3	86	Report
614	30	Army Reports	Chem Stockpile Displ Cncpt Pln	3	15	86	Report
615	30	Army Reports	Chem Stockpile Displ Cncpt Pln	3	15	86	Report
616	30	Army Reports	M55 Rocket Disposal Program Srudy	11	22	85	Report
617	30	Army Reports	Independent Evalua/Assessment	10	0	85	Report
618	30	Army Reports	Disposal of Chemical Munitions	12	0	84	Report
619	30	Army Reports	Thermal Decomp. of GB, VX & HD	9	28	84	Report
620	30	Army Reports	Military Explosives	9	20	84	Report
621	30	Army Reports	Effects of Subacute Exposures	6	0	83	Report
622	30	Army Reports	Air Monitoring System Tech Ass	4	1	83	Report
627	30	Army Reports	Final Demilitarization Plan	0	0	83	Report
623	30	Army Reports	Ana Decontaminated Packing -	12	7	81	Report
624	30	Army Reports	Revision of Lmts Human Expos.	12	0	79	Report
625	30	Army Reports	Prfrmnce Evaluation Gas Filtrs	10	0	78	Report
626	30	Army Reports	Report for GB Challange Testng	2	28	77	Report
628	30	Army Reports	Executive Summary	0	0	0	Summary
2321	31	EIS Reports	Revised Final EIS	11	0	96	Report
1668	31	EIS Reports	Disposal of Chem Agents & Munitions-Final EIS	5	0	96	Report
1673	31	EIS Reports	Comments on Draft EIS	1	10	96	Letter
629	31	EIS Reports	Disposal of Chem. Agents & Munitions Stored	12	0	95	Report
637	31	EIS Reports	Review of Monitoring Activities	6	13	94	Report
638	31	EIS Reports	Evltn JACADS Operational Verification Tsting	6	13	94	Report
1269	31	EIS Reports	Eval of the JACADS Operational Verification	0	0	94	Report
1270	31	EIS Reports	Review of Monitoring Activities	0	0	94	Report
1271	31	EIS Reports	Convention-Prohibition of Dev,Production etc	0	0	93	Report
1666	31	EIS Reports	Disposal of Chem Agents & Munitions-Prelim EIS	5	0	92	Report
630	31	EIS Reports	Proposed Burn of Chem Weapons	1	17	92	Letter
640	31	EIS Reports	Disposal Chemical Agents/draft	10	0	91	Report
	31	EIS Reports	Final EIS	8	1	91	Report
641	31	EIS Reports	Final/Base Realignment&Closure	8	0	91	Report
642	31	EIS Reports	JACADS/final 2nd Supplemental-	6	0	90	Report
643	31	EIS Reports	JACADS/final 2nd Supplemental-	6	0	90	Report
631	31	EIS Reports	EIS CSDP	1	11	89	Letter
644	31	EIS Reports	JACADS/final	12	0	88	Report
645	31	EIS Reports	Chemical Stockpile Dspsl/final	1	0	88	Report
646	31	EIS Reports	Chemical Stockpile Dspsl/final	1	0	88	Report
1168	31	EIS Reports	Chemical Stockpile Disposal/Final	1	0	88	Report
647	31	EIS Reports	Evaluation of Draft Programatic EIS	9	30	87	Report
648	31	EIS Reports	JACADS/draft Supplemental EIS	8	17	87	Report
633	31	EIS Reports	CSDP Drft Prgrammtc Env. Impct	9	19	86	Letter
634	31	EIS Reports	CSDP-DPEIS	8	27	86	Letter
635	31	EIS Reports	Disposal of Nerve Agents	8	12	86	Letter
650	31	EIS Reports	Notice for Public Hearing	7	30	86	Letter
649	31	EIS Reports	Chemical Stockpile Dspsl/draft	7	1	86	Report

636	31	EIS Reports	Draft EIS for UAD	0	0	0	SpdLttr
1986	32	Other Reports	Dioxin Report	10	29	96	Report
1984	32	Other Reports	Remarks from Dr.RMcGee before the CDCAC	10	7	96	Report
1985	32	Other Reports	Public Involvement and the ChemDisposal Prog	10	0	96	Report
1943	32	Other Reports	Notes from 8/22/96 EQC Meeting	8	27	96	Notes
1859	32	Other Reports	Tech.wrkshp of WTI Incinerator R.A. issues	5	0	96	Report
1570	32	Other Reports	The Incineration of HD Agenct at JACADS	3	17	96	Report
1391	32	Other Reports	Revised Draft EIS Comments	3	14	96	Letter
1057	32	Other Reports	Chemical Weapons Stockpile Info Declassified	1	22	96	Report
1537	32	Other Reports	The Oregon Experiment:A Grassroots Approach	1	0	96	Report
1538	32	Other Reports	Evaluation of Army's Draft Assess Criteria...	1	0	96	Report
651	32	Other Reports	HW Incineration Study	5	12	95	Memo
1058	32	Other Reports	List of GAO Reports	5	5	95	Report
652	32	Other Reports	Trial Burn Plan 4 LIC1	4	24	95	Report
653	32	Other Reports	Test Results & Operations	1	12	95	Lttr/Memo
1858	32	Other Reports	Stability of the US Stockpile	12	0	94	Report
	32	Other Reports	Analytical Methods for Env Sampling	9	20	94	Book
1548	32	Other Reports	US Chem Weapons Destruction Program	9	0	94	Report
654	32	Other Reports	Community Assessment Survey	8	0	94	Report
	32	Other Reports	Review of Monitoring Activities	6	13	94	Report
	32	Other Reports	Evaluation of JACADS OVT Part2	6	13	94	Report
	32	Other Reports	Review of Monitoring Activities	6	13	94	Report
	32	Other Reports	Evaluation of JACADS OVT Part2	6	13	94	Report
655	32	Other Reports	Installation Restoration Prgm	4	12	94	Report
656	32	Other Reports	Columbia Rvr Pathway Dosimtry	4	0	94	Report
657	32	Other Reports	Atmosphrc Pathwy Dosimtry	4	0	94	Report
2330	32	Other Reports	Recommendations for Disposal	3	17	94	Report
658	32	Other Reports	Validation of HEDR Models	1	0	94	Report
659	32	Other Reports	Radionclde Relse To Atmosph.	1	0	94	Report
660	32	Other Reports	Radionclde Concntratns Columbia R. Frm Hanfrd	1	0	94	Report
661	32	Other Reports	Commercl Milk Distrbtn	12	0	93	Report
662	32	Other Reports	Comprehnsve Pln Exctve Summry	10	0	93	Report
663	32	Other Reports	Comprehensive Plan Summary	10	0	93	Report
664	32	Other Reports	Technical Report	10	0	93	Report
665	32	Other Reports	Alternative Technologies	8	2	93	Report
1569	32	Other Reports	Chemical Weapons Demil.and Disposal	5	12	93	Report
666	32	Other Reports	List of Hazardous Substances	1	13	93	Report
667	32	Other Reports	1990 Fee Adjustment	8	25	92	Letter
1206	32	Other Reports	Citizens' Environmental Protection Committee	7	0	92	Report
1857	32	Other Reports	Disposal of Chemical Weapons-Alt.Tech.	6	0	92	Paper
668	32	Other Reports	Chemical Demil POHC Evaluation	2	10	92	Letter
1568	32	Other Reports	All Fired Up	1	1	92	Report
669	32	Other Reports	Final Report- POHC Evaluation	11	12	91	Report
670	32	Other Reports	"Playing With Fire HW Incin"	10	5	91	Report
671	32	Other Reports	Engr Anlsis Chem Agnt Demil Plnt	1	0	91	Report
673	32	Other Reports	Cryofracture/Tech. Assessment	0	0	91	Manual

672	32	Other Reports	Stckple Dstrctn Delay Army Prototype Dspsl	7	0	90	Report
674	32	Other Reports	Nevada Draft DOD/IRP Agreement	5	17	90	Memo
675	32	Other Reports	Obstacles to Pln 2 Destry Stck	5	0	90	Report
676	32	Other Reports	Comments Draft Plan Test	12	22	89	Letter
677	32	Other Reports	Commnts on Report by RWeston	6	21	89	Letter
678	32	Other Reports	Proposal for EPP & Systm for Chem Demil	3	1	89	Report
679	32	Other Reports	EPA Contract; Army CADF	12	22	88	Letter
680	32	Other Reports	Primary Combstn Chmbr	11	14	88	Report
681	32	Other Reports	Briefing EPA & State of Utah	4	28	88	Report
682	32	Other Reports	UMDA CAIRA Plan, Rvsns Rcmnded	4	21	88	Letter
683	32	Other Reports	GAO Report, Contrctr Indemnfctn	3	28	88	Rules
684	32	Other Reports	Proposed Revisions to Annex C	2	26	88	Rvsns
685	32	Other Reports	2nd HW Inventory	2	10	88	Letter
686	32	Other Reports	Installatn Restrtn Prog Plan	2	0	88	Report
687	32	Other Reports	Request Doc Oprtn of DATs	10	27	87	Letter
688	32	Other Reports	Army Reports on Nerve Agent Incid. Tooele	9	22	87	Memo
689	32	Other Reports	Army Rprt Toole JACADs Nrve Agt	9	22	87	Memo
690	32	Other Reports	App for ACDP Reviewed By AQ Div	9	8	87	Letter
1410	32	Other Reports	Archeological Overview for UAD	9	0	87	Report
691	32	Other Reports	Sets of Text for RCRA HW Prmt	8	12	87	Letter
692	32	Other Reports	Data Bases for Chem Agents to be Destroyed	6	26	87	Letter
693	32	Other Reports	Downwind Hazard Plts Enclosed	6	11	87	Letter
694	32	Other Reports	Final Interim RCRA Facility Assessment	6	0	87	Report
695	32	Other Reports	Document and Needed Information	4	29	87	Memo
696	32	Other Reports	Houk's Statement of 3/26/87	3	26	87	Sttment
697	32	Other Reports	Liquid Incinerator Facility	3	20	87	Report
698	32	Other Reports	Health Aspects Emergncy Respns	3	10	87	Report
699	32	Other Reports	PCB Update	3	3	87	Report
700	32	Other Reports	Army Doc Nerve Agent Exposure	12	22	86	Memo
701	32	Other Reports	Request of Technical Reports	11	12	86	Letter
702	32	Other Reports	Submittal of Additional Comments	10	21	86	Letter
703	32	Other Reports	When does a Waste Become a Waste?	10	20	86	Memo
1611	32	Other Reports	M55 Rocket Separation Study	11	22	85	Report
704	32	Other Reports	Rsk Asses, Rsk Mngmnt Toxic Sub	4	0	85	Report
705	32	Other Reports	Report of Chem Compositions	10	20	83	Report
706	32	Other Reports	Annex M OR State Emerg Oprtns Plan UCERP	1	0	80	Report
707	32	Other Reports	Phase I Lessons Learned	0	0	0	Report
708	40	Army Manuals	Contract TOCDF	7	20	93	Letter
711	40	Army Manuals	P-MOP Operator Certification Concurrence Sht	7	17	93	Report
709	40	Army Manuals	P-MOP Operator Certification Concurrence Sht	6	23	93	Report
710	40	Army Manuals	P-MOP Operator Certification Concurrence Sht	6	22	93	Report
712	40	Army Manuals	Reentry Planning	4	1	90	Report
713	40	Army Manuals	Evaluating Protctve Actns Chem Agent Emerg.	4	1	90	Report
714	40	Army Manuals	Oil & Hzrdous Substbce ISCP	4	0	85	Report
715	40	Army Manuals	Oprtn DATs at Designated Military Installtns	6	0	83	Report
716	40	Army Manuals	Oprtn DATs at Designated Military Installtns	6	0	83	Report

717	40	Army Manuals	Engineering Design Handbook	12	15	78	Report
1418	50	Plans & Maps	On-site container O&M mannual	11	30	95	Mannual
718	50	Plans & Maps	Tooele RCRA Permit Drawings	2	24	89	Plans
2273	50	Plans & Maps	Figure 3-13, Unitized Total Deposition Rates	0	0	0	Map
2274	50	Plans & Maps	Figure 3-12, Unitized Air Prtclte Concentratio	0	0	0	Map
2275	50	Plans & Maps	Figure 3-11, Unitized Air Prtclte Cncntrtn	0	0	0	Map
2276	50	Plans & Maps	Figure 5-3, Wildlife Areas of Interest	0	0	0	Map
2277	50	Plans & Maps	Figure 3-10, Umatilla Watershed	0	0	0	Map
2278	50	Plans & Maps	Figure 3-9, Study Area Watershed	0	0	0	Map
2279	50	Plans & Maps	Figure 3-8, Selected Receptors	0	0	0	Map
2280	50	Plans & Maps	FIgure 3-7, Polar, Boundary, & Discrete Recptr	0	0	0	Map
719	50	Plans & Maps	Sheet 1 of 3	0	0	0	Plans
720	50	Plans & Maps	Sheet 2 of 3	0	0	0	Plans
721	50	Plans & Maps	Sheet 3 of 3	0	0	0	Plans
722	50	Plans & Maps	Projectile/Mortar Processing	0	0	0	Plans
723	50	Plans & Maps	Provost Marshal - Regional Map	0	0	0	Map
724	50	Plans & Maps	Fig B-2-1 Topographic Map	0	0	0	Map
1033	50	Plans & Maps	Rmdl Actn Wrkpln	0	0	0	Map
1674	50	Plans & Maps	Munitions Processing Schematics	0	0	0	Plans
2320	55	Alt. Technologies	Explore M4, Chem Demil News	11	0	96	News
1988	55	Alternative Tech	Promise of Alternative Technologies	10	30	96	Report
1945	55	Alternative Tech	Thank you letter to Wendell Ford	9	14	96	Letter
1863	55	Alternative Tech	Alt Tech Program Evaluation report - DRAFT	9	9	96	Report
2270	55	Alternative Tech	Review & Evaluation of Alt Chem Dspsl Tech	9	0	96	Report
1862	55	Alternative Tech	Tech & Econ Analysis Comp Alt.Tech.to Baseline	7	0	96	Report
1634	55	Alternative Tech	ECO Logic Press Release	6	10	96	PressRls
1571	55	Alternative Tech	Plasma ARC & Quantum Tech, Houston	5	1	96	Report
1633	55	Alternative Tech	Exec.Summary Prelim RA of Alt Tech for Chem...	5	0	96	Report
1667	55	Alternative Tech	Prelim. R.A. of Alt Tech for Chem Demil	5	0	96	Report
1861	55	Alternative Tech	Pyro-Plasma Alternative Tech. requesting info	4	29	96	Letter
1860	55	Alternative Tech	Molten Metal Federal Register Information	4	8	96	FedReg
1595	55	Alternative Tech	Pyro-Plasma Process	3	21	96	Report
1596	55	Alternative Tech	Moletn Metal Documents	2	27	96	Reports
1458	55	Alternative Tech	Supercritical H2O Oxidation information	2	26	96	Report
1457	55	Alternative Tech	Molten Metal News Release	1	17	96	NewsRls
1456	55	Alternative Tech	Various Army Alt Tech. Outreach Material	12	0	95	Articles
1454	55	Alternative Tech	CDC Brochure Demil of Chemical Weapons	10	0	95	Brochure
1455	55	Alternative Tech	Ecologic Steam Processing	10	0	95	Report
1228	55	Alternative Tech	Advances in Altern Demil Tech - Wkshp	9	25	95	Report
1453	55	Alternative Tech	Application of the Silver(II) Process	9	25	95	Report
1059	55	Alternative Tech	Supercritical Water Oxidation Lit.	5	19	95	Brochure
1452	55	Alternative Tech	Chemical Reactions for Neutralising Chem...	5	1	95	MagArt
728	55	Alternative Tech	Supercritical Water Oxidation	6	29	94	Article
729	55	Alternative Tech	Destrctve Desrptn Adsrptn Tech	6	13	94	FactSht
730	55	Alternative Tech	Chem Weap WorkGroup Conference	3	17	94	Memo
1426	55	Alternative Tech	Recommendations for Disposal	3	7	94	Report

731	55	Alternative Tech	HyMelt Demonstration Project	2	18	94	Hndout
639	55	Alternative Tech	Alt Tech Destruction of Chem Agents & Munition	8	2	93	Report
732	55	Alternative Tech	Mult. Alter. Studied Disposal	6	10	93	Release
733	55	Alternative Tech	Resource Recovery & Poll Prev	6	4	92	Hndout
734	55	Alternative Tech	Destruction of Chemical Warfare Agents	6	4	92	Present
735	55	Alternative Tech	Chem Neutralization/Hydrolysis	0	0	0	Article
736	55	Alternative Tech	Prac Advantages Biodegradation	0	0	0	Hndout
1948	60	Coop Agreement	Typo changes in FY97 Coop Agreement letter	10	16	96	Letter
1946	60	Coop Agreement	Funding Request FFY97	10	11	96	Letter
1947	60	Coop Agreement	Fax cover sheet for FY97 request	10	11	96	FaxCover
1711	60	Coop Agreement	Comments for 2nd and 3rd FFY Quarters	8	30	96	Figures
1865	60	Coop Agreement	Additional Funding Request-FY96	5	15	96	Letter
1864	60	Coop Agreement	Funding Info Req-FY95,Prelim Funding Req-FY96	5	5	96	Letter
1392	60	Coop Agreement	UAD FY96 Reports	3	19	96	Fax
737	60	Coop Agreement	Agreement Funding Request	9	8	95	Letter
738	60	Coop Agreement	Agreement Funding Request - FY95	3	30	95	Letter
739	60	Coop Agreement	Agreement Funding Request - FY95	2	28	95	Letter
740	60	Coop Agreement	Federal Fiscal Year 1995	0	0	95	Agreemnt
1169	60	Coop Agreement	FY95 Projected Expenditures Report	10	21	94	Report
741	60	Coop Agreement	Federal Fiscal Year 1994-3rd Q	7	20	94	Agreemnt
742	60	Coop Agreement	CDCAC Members Names & Addresses	12	16	93	List
743	60	Coop Agreement	Environmental Permitting Act.	6	23	93	Letter
744	60	Coop Agreement	HW Permtting Chem. Demil Facil.	10	9	92	Agreemnt
745	60	Coop Agreement	Construction Permit & Licenses	6	1	92	Letter
1540	61	Quarterly Reports	Activity Summary 1st Quarter FFY96	4	25	96	Report
1207	61	Quarterly Reports	Activity Rpt, 4th Quarter FFY 1995	11	7	95	Report
746	61	Quarterly Reports	4th Qrter 1994, Actvty Rprt	2	28	95	Letter
1713	65	Facts & Studies	Chart of number of leakers at various ChemStoc	9	11	96	Memo
1868	65	Facts & Studies	Leaker Figures - All Sites	8	22	96	Memo
1949	65	Facts & Studies	Review of waste incineration research program	8	15	96	Letter
1869	65	Facts & Studies	Overheads of Quantitative Risk Assessment	8	6	96	Overheads
1712	65	Facts & Studies	Lower Columbia River Bi-State WQ Program	6	0	96	Report
1636	65	Facts & Studies	Chem Reactions for Neutralising Chemical...	5	1	96	Report
1574	65	Facts & Studies	Incinerator Air Emissions	12	0	95	Article
747	65	Facts & Studies	Expanding RFD Concept	10	0	95	Newslttr
1992	65	Facts & Studies	Pursian Gulf Review	8	0	95	Flyer
1870	65	Facts & Studies	Leaker Report from Army	7	10	95	Figues
1572	65	Facts & Studies	A Case Study of Municipal Waste incineration	7	0	95	Report
1867	65	Facts & Studies	Chemical Agent Testing Labs	5	24	95	List
1991	65	Facts & Studies	Agent Orange Review - Volume 11,No.2	5	0	95	Flyer
725	65	Facts & Studies	Rsk Assessment Supprting Chem Demil	1	23	95	Hndout
1638	65	Facts & Studies	Review Comments on PAS Air Filter System	11	14	94	Letter
1573	65	Facts & Studies	Health Assessment Studies	8	0	94	Report
748	65	Facts & Studies	Proposed Cleanup Plans	2	0	94	FactSheet
749	65	Facts & Studies	Explosive Washout Lagoons GW	2	0	94	FactSheet
750	65	Facts & Studies	Explosive Washout Plant	2	0	94	FactSheet

751	65	Facts & Studies	Miscelaneous Sites Operable	2	0	94	FactSheet
752	65	Facts & Studies	SRI Study Sites & PCB Transfrm	2	0	94	FactSheet
753	65	Facts & Studies	Ammunition Demolition Activity	2	0	94	FactSheet
1635	65	Facts & Studies	Effect of Sulfur on Formation of PCDD/PCDF...	5	3	93	Report
1761	65	Facts & Studies	Incineration of Haz.Waste:A critical review...	1	0	93	Report
1575	65	Facts & Studies	Waste Wars:The Army opens new front	4	29	92	Article
1866	65	Facts & Studies	Dioxin Toxicity	6	0	90	Report
754	65	Facts & Studies	Intent to Deny HW Permit	8	30	89	FctSheet
755	65	Facts & Studies	Attached ORD Recommendations	12	7	87	Memo
756	65	Facts & Studies	Arsenic, Toxic Substnces	6	0	87	FctSheet
757	65	Facts & Studies	Pentachlorophenol, Toxic Sub.	6	0	87	FctSheet
758	65	Facts & Studies	Triclopyr, Toxic Substances	6	0	87	FctSheet
759	65	Facts & Studies	PCB Cntmntd M55 Rockt Incin.	3	3	87	FctSheet
760	65	Facts & Studies	Agent Mustard	12	26	86	Info.Sht
761	65	Facts & Studies	Carcinogens in Drnk H2O Stndrds	8	21	86	Report
762	65	Facts & Studies	Bubbler Adsorption System	3	24	86	FactSheet
763	65	Facts & Studies	Liquid Incinerator Agnt Incinertn Tsts	2	0	86	Results
764	65	Facts & Studies	Lt Review of Thrml Decompostn Studies of Agnt	8	24	84	Rvw
2120	65	Facts & Studies	OR Dept of Veterans Affairs, Agent Orange	5	0	84	Guide
765	65	Facts & Studies	Nerve Agents Hndout #2	0	0	0	Hndout
766	65	Facts & Studies	HW Management Facility Permit	0	0	0	FactSheet
1990	65	Facts & Studies	Eval.& treatment of Post-traumatic stress...	0	0	0	Flyer
2163	70	News Articles	Kuma, EQC-pm	11	22	96	NewsArt
2018	70	News Articles	"Burn weapons at Umatilla"	11	21	96	NewsArt
2019	70	News Articles	"Weapons incineration - Burning questions"	11	21	96	NewsArt
2020	70	News Articles	"DeFazio opposes weapons incinerator"	11	21	96	NewsArt
2021	70	News Articles	"DeFazio opposes weapons burning"	11	21	96	NewsArt
2015	70	News Articles	"State may not approve Army's plan to incin...	11	17	96	NewsArt
2016	70	News Articles	"State considers neutralization of mustard gas	11	17	96	NewsArt
2013	70	News Articles	"Details may delay permits for incinerator"	11	16	96	NewsArt
2014	70	News Articles	"State may bar burning of mustard gas supply"	11	16	96	NewsArt
2011	70	News Articles	"Tribes endorse draining rockets"	11	14	96	NewsArt
2012	70	News Articles	"Panel tabs stress as factor in many gulf..."	11	14	96	NewsArt
2010	70	News Articles	"Tribal testimony expected on chem weapons..."	11	12	96	NewsArt
2009	70	News Articles	"Schools fault CSEPP communication"	11	5	96	NewsArt
1994	70	News Articles	"Final hearings on disposal of nerve,mustard..	11	4	96	NewsArt
2008	70	News Articles	"Destroy the us chemical weapons stockpile"	11	1	96	WWWArt
2006	70	News Articles	"Hermiston wants US money to deal with..."	10	25	96	NewsArt
2007	70	News Articles	"Umatilla tribes, US Army paln to confer..."	10	25	96	NewsArt
2003	70	News Articles	"Umatilla Chem Depot to dedicate treatment..."	10	24	96	NewsArt
2004	70	News Articles	"Storing chemical weapons risky"	10	24	96	NewsArt
2005	70	News Articles	"Study: Disposal of chemicals safer"	10	24	96	NewsArt
2002	70	News Articles	"Study: Disposal safest choice"	10	23	96	NewsArt
2001	70	News Articles	"Agreement ensures Tribes and Army will keep..	10	18	96	NewsArt
2000	70	News Articles	"Army official outlines CSEPP changes"	10	17	96	NewsArt
1999	70	News Articles	"No 'leakers' found last quarter at Army Depot	10	14	96	NewsArt

2134	70	News Articles	Video Tape: Nervous Alternatives	10	13	96	Video
1998	70	News Articles	"NRC favors incineration of stockpile"	10	8	96	NewsArt
1871	70	News Articles	"Utah town grows despite chem weapons plant"	10	6	96	NewsArt
1997	70	News Articles	"Safety remains key in Depot's plans"	10	0	96	NewsArt
1872	70	News Articles	"Study suggests destroying chem weapons with..	9	25	96	NewsArt
1873	70	News Articles	"DOE says waste fr.Tennessee will go to Idaho"	9	24	96	NewsArt
1874	70	News Articles	"Clinton orders disposal assessment"	9	20	96	NewsArt
1875	70	News Articles	"Way clearing for emergency center"	9	20	96	NewsArt
1806	70	News Articles	"Politics bog treaty to ban chemical arms"	9	13	96	NewsArt
1995	70	News Articles	"Bayh says Army should consider options..."	9	12	96	NewsArt
1758	70	News Articles	"In Hermiston, all eyes are on Utah"	9	5	96	NewsArt
1805	70	News Articles	"Chem Weapons: Army Resumes Incineration at...	9	3	96	PressRls
1996	70	News Articles	"Taking out the trash, Chemical Weapon Style"	9	0	96	Newsltr
1756	70	News Articles	"Other methods could sidestep incineration"	8	31	96	NewsArt
1757	70	News Articles	"Senator criticizes proposal to ship..."	8	31	96	NewsArt
1750	70	News Articles	"Investigation team dispatched to Tooele"	8	27	96	NewsArt
1751	70	News Articles	"Large crowd voices support for Army's..."	8	27	96	NewsArt
1752	70	News Articles	"The paper farmer"	8	27	96	NewsArt
1756	70	News Articles	"Leak halts incineration at Tooele,Utah"	8	27	96	NewsArt
1754	70	News Articles	"Incinerator leak under study"	8	27	96	NewsArt
1747	70	News Articles	"Leak detected at Tooele burner"	8	26	96	NewsArt
1748	70	News Articles	"Leak halts weapons incineration"	8	26	96	NewsArt
1749	70	News Articles	"Gas leak halts chemical weapons incineration"	8	26	96	NewsArt
1746	70	News Articles	"Umatilla's Deadly Dilemma"	8	25	96	NewsArt
1744	70	News Articles	"Chemical burn ground-rules aired"	8	24	96	NewsArt
1745	70	News Articles	"Commission works toward permit decision"	8	24	96	NewsArt
1738	70	News Articles	"Most at hearing endorse incineration"	8	23	96	NewsArt
1740	70	News Articles	"Chemicals:State will assess burner's..."	8	23	96	NewsArt
1741	70	News Articles	"Burning begins at Tooele"	8	23	96	NewsArt
1742	70	News Articles	"Oregon officials visit Umatilla Depot"	8	23	96	NewsArt
1743	70	News Articles	"Army burns chemical weapons"	8	23	96	NewsArt
1714	70	News Articles	"New Gulf War chemical report issued"	8	22	96	NewsArt
1733	70	News Articles	"Incineration begins on stockpile"	8	22	96	NewsArt
1734	70	News Articles	"Incineration of chemical weapons starts"	8	22	96	NewsArt
1735	70	News Articles	"Hearing tonight for depot burn plan"	8	22	96	NewsArt
1736	70	News Articles	"Chemical weapons set for burning"	8	22	96	NewsArt
1737	70	News Articles	"The EQC will meet..."	8	22	96	NewsArt
1685	70	News Articles	"Army site in Utah will start burning chem..."	8	21	96	NewsArt
1731	70	News Articles	"Army set to fire up Utah incinerator"	8	21	96	NewsArt
1732	70	News Articles	"Utah incinerator set to start burning...	8	21	96	NewsArt
1684	70	News Articles	"Commission needs straight answers..."	8	20	96	NewsArt
1726	70	News Articles	"Surveys:Most people confident of incineration	8	20	96	NewsArt
1727	70	News Articles	"Public comment sought on incineration"	8	20	96	NewsArt
1728	70	News Articles	"Public has chance to weigh in on Army's..."	8	20	96	NewsArt
1730	70	News Articles	"Judge refuses to block start up of Utah incin	8	20	96	NewsArt
1725	70	News Articles	"Army to answer depot questions"	8	19	96	NewsArt

1682	70	News Articles	"Earlier Polls Were Better" - Stuart Dick	8	17	96	NewsArt
1723	70	News Articles	"Judge allows weapons incineration"	8	15	96	NewsArt
1724	70	News Articles	"Utah allowed to burn weapons"	8	15	96	NewsArt
1680	70	News Articles	"Judge rejects incineration hold"	8	14	96	NewsArt
1721	70	News Articles	"Judge won't halt weapons incinerator"	8	14	96	NewsArt
1678	70	News Articles	"Sealed Tight-DEQ say nerve gas incin.risk..."	8	13	96	NewsArt
1679	70	News Articles	"Army to answer Depot questions"	8	13	96	NewsArt
1677	70	News Articles	"Poll gives new take on Depot attitudes"	8	10	96	NewsArt
1719	70	News Articles	"Tri-Citians have fewer fears of depot plans"	8	10	96	NewsArt
1676	70	News Articles	"Weapons Diposal Guidelines Outlined"	8	6	96	NewsArt
1717	70	News Articles	"Depot information effort has fallen short"	8	1	96	NewsArt
1718	70	News Articles	"DEQ sets meetings on incineration"	8	1	96	NewsArt
1648	70	News Articles	"Public Wary of Army plans"	7	30	96	NewsArt
1715	70	News Articles	"Debate over chemical leaks heats up"	7	27	96	NewsArt
1716	70	News Articles	"More detailed picture of 'leakers' emerges	7	27	96	NewsArt
1647	70	News Articles	"Weapons incineration report risk data rlsed..	7	24	96	NewsArt
1646	70	News Articles	"Whistleblower testifies in Army incinerator..	7	23	96	NewsArt
1640	70	News Articles	"Army:Burning best for nerve gas"	7	12	96	NewsArt
1641	70	News Articles	"Unfiltered testimony-public deserves..."	7	12	96	NewsArt
1642	70	News Articles	"US Army emphatically endorses incineration"	7	12	96	NewsArt
1643	70	News Articles	"Burning best for nerve gas, Army says"	7	12	96	NewsArt
1644	70	News Articles	"Depot burn backers light up meeting w/facts"	7	12	96	NewsArt
1622	70	News Articles	"Concern over depot emergency preparations.."	7	6	96	NewsArt
1621	70	News Articles	"Stay put if nerve gas accident occurs..."	7	5	96	NewsArt
1618	70	News Articles	"Officials advise staying put in a release.."	7	4	96	NewsArt
1619	70	News Articles	"Kitzhaber questions depot safety"	7	4	96	NewsArt
1620	70	News Articles	"Gov.Kitzhaber questions weapons depot..."	7	4	96	NewsArt
1876	70	News Articles	"Weapons depot raises fears"	7	4	96	NewsArt
1616	70	News Articles	"Judge throws out 7 counts in Tooele..."	7	2	96	NewsArt
1617	70	News Articles	"Incinerator Lawsuit"	7	2	96	NewsArt
1615	70	News Articles	"More plutonium may have escaped Hanford"	7	1	96	NewsArt
1614	70	News Articles	"'Shelter in place'touted as best reaction.."	6	29	96	NewsArt
1613	70	News Articles	"Utah approves chemical incineration"	6	27	96	NewsArt
1612	70	News Articles	"Army aboveboard"	6	25	96	NewsArt
1591	70	News Articles	"Objectivity depends on your distance..."	6	20	96	NewsArt
1877	70	News Articles	"County officials return w/confidence in..."	6	18	96	NewsArt
1590	70	News Articles	"Army releases impact statement"	6	15	96	NewsArt
2128	70	News Articles	Weapons Incinerator Comment Period Extended	6	15	96	NewsArticle
1589	70	News Articles	"Questions remained unanswered"	6	12	96	NewsArt
1588	70	News Articles	"Incineration plan concerns voiced"	6	11	96	NewsArt
1587	70	News Articles	"Living with uncertainty in Army Depot's..."	6	10	96	NewsArt
1586	70	News Articles	"Hermiston incineration hearing scheduled"	6	8	96	NewsArt
1545	70	News Articles	"Kitzhaber Delays permits on depot's burning..	6	5	96	NewsArt
1543	70	News Articles	"Around the Northwest"	5	29	96	Cable Brief
1544	70	News Articles	"Chemical Weapons Controversy"	5	29	96	NewsArt
1541	70	News Articles	"New Members join chemical advisory group"	5	27	96	NewsArt

1542	70	News Articles	"Oregon becomes hot spot of tourist industry"	5	27	96	NewsArt
1539	70	News Articles	"Examine Alternatives"	5	24	96	NewsArt
1878	70	News Articles	"DEQ assessment right on" - Jack Blackwell	5	21	96	NewsArt
1525	70	News Articles	"Depot disposal plan attacked"	5	18	96	NewsArt
1524	70	News Articles	"Incineration Alternatives discussed"	5	17	96	NewsArt
1879	70	News Articles	Cartoon of chemical demilitarization issue	5	16	96	NewsArt
1523	70	News Articles	"Incineration foes, friends, speak minds..."	5	14	96	NewsArt
1522	70	News Articles	"Comment sought on Depot Plan"	5	11	96	NewsArt
1521	70	News Articles	"If disaster struck Umatilla Depot"	5	10	96	NewsArt
1520	70	News Articles	"Army Study: Chem weapons stable"	5	4	96	NewsArt
1519	70	News Articles	"Incineration office to open"	5	1	96	NewsArt
1881	70	News Articles	"Don't delay nerve gas disposal"	4	28	96	NewsArt
1518	70	News Articles	"Incineration friends and foes"	4	27	96	NewsArt
1517	70	News Articles	"Army gets ready to burn cache of chemical..."	4	19	96	NewsArt
1516	70	News Articles	"EPA Proposing changes to screen cancer..."	4	16	96	NewsArt
1485	70	News Articles	"Commission plans tour of Tooele incinerator"	4	13	96	NewsArt
1515	70	News Articles	"Treatment Storage of Chemicals Weapons..."	4	12	96	MagArt
1484	70	News Articles	"Dueling Studies add to the controversy"	4	10	96	NewsArt
1514	70	News Articles	"Chemical weapons battle off to court"	4	10	96	NewsArt
1483	70	News Articles	"State study:Incineration poses no risks"	4	9	96	NewsArt
1482	70	News Articles	"Researcher says incineration increases risk"	4	8	96	NewsArt
1450	70	News Articles	"Time to move on Depot"	4	6	96	NewsArt
1451	70	News Articles	"Burning gas risky, Umatilla study says"	4	6	96	NewsArt
1446	70	News Articles	"Reservation not a depot disaster evac. zone"	4	5	96	NewsArt
1448	70	News Articles	"Consider Army's record"	4	5	96	NewsArt
1449	70	News Articles	"Express your opinions about chemical..."	4	5	96	NewsArt
1445	70	News Articles	"Governor,Tribes talk incineration"	4	4	96	NewsArt
1444	70	News Articles	"Don't rush gas disposal"	4	1	96	NewsArt
1443	70	News Articles	"Testimony in whistleblower hearing..."	3	30	96	NewsArt
1442	70	News Articles	"Tribes astonished by gas burning plan"	3	29	96	NewsArt
1441	70	News Articles	"Tribes blast Army evacuation plan"	3	28	96	NewsArt
1438	70	News Articles	"Tooele Safety attitudes attacked"	3	27	96	NewsArt
1439	70	News Articles	"NRC Reviews Tooele incinerator"	3	27	96	NewsArt
1440	70	News Articles	"Make deliberate decision regarding..."	3	27	96	NewsArt
1401	70	News Articles	"Kitzhaber may slow papers for Army..."	3	26	96	NewsArt
1437	70	News Articles	"Gov. would consider some burner delay"	3	26	96	NewsArt
1481	70	News Articles	"Terrifying cache faces destruction"	3	26	96	NewsArt
1435	70	News Articles	"Army hopes to fire up chemical wheapons..."	3	25	96	NewsArt
1436	70	News Articles	"Incinerator complaints to be aired"	3	25	96	NewsArt
1396	70	News Articles	"Community's silence deafening on Army's..."	3	19	96	NewsArt
1397	70	News Articles	"AG quashes incinerator moratorium"	3	19	96	NewsArt
1398	70	News Articles	"Morrow Co. residents file for commission..."	3	19	96	NewsArt
1399	70	News Articles	"Army outreach office benefits for both..."	3	19	96	NewsArt
1400	70	News Articles	"Army opens outreach office"	3	19	96	NewsArt
1395	70	News Articles	"Umatilla Army Depot staff hunts leakers"	3	16	96	NewsArt
1434	70	News Articles	"N-waste conversion into glass begins"	3	13	96	NewsArt

1252	70	News Articles	"Burn that poison gas"	3	11	96	NewsArt
1251	70	News Articles	"State, county discuss dispute over CSEPP"	3	9	96	NewsArt
1433	70	News Articles	"There's no need for haste on nerve gas..."	3	9	96	NewsArt
1250	70	News Articles	"Kitzhaber may not have power to delay..."	3	4	96	NewsArt
1394	70	News Articles	"Tooele Looses Support"	3	4	96	Mag Art
1199	70	News Articles	"Stop stalling, burn the stuff"	3	1	96	NewsArt
1200	70	News Articles	"State won't make quick decision..."	3	1	96	NewsArt
1249	70	News Articles	"Destroy Umatilla weapons"	3	1	96	NewsArt
1170	70	News Articles	"Ore+D2126 congressman asks Governor to halt w	2	26	96	NewsArt
1197	70	News Articles	"War of Words"	2	24	96	NewsArt
1198	70	News Articles	"No More Hermiston"	2	24	96	NewsArt
1193	70	News Articles	"Weapons burning spurs concern"	2	23	96	NewsArt
1194	70	News Articles	"Governor asked to delay weapons-burning plans	2	23	96	NewsArt
1195	70	News Articles	"Governor asked to delay weapons burning"	2	23	96	NewsArt
1196	70	News Articles	"DeFazio adds his voice to request..."	2	23	96	NewsArt
1248	70	News Articles	"Nerve gas burning plan fuels debate"	2	23	96	NewsArt
1192	70	News Articles	"Mayors Call for Incinerator Action"	2	22	96	NewsArt
1247	70	News Articles	"Mayors rally around depot weapons burn"	2	22	96	NewsArt
1246	70	News Articles	"Delay warranted for incinerator at UAD"	2	21	96	NewsArt
1243	70	News Articles	"Cynicisn enhanced"	2	20	96	NewsArt
1244	70	News Articles	"Mayor eyes support for burning weapons"	2	20	96	NewsArt
1245	70	News Articles	"'Time Out': Tribes seek halt to incin.plan...	2	20	96	NewsArt
1242	70	News Articles	"DEQ forges ahead on incinerator review"	2	17	96	NewsArt
1241	70	News Articles	"Tribes seek incinerator moratorium"	2	15	96	NewsArt
1240	70	News Articles	"Incineration Debate filled w/misinformation"	2	13	96	NewsArt
1171	70	News Atricles	"Chemical Time Bombs"	2	12	96	NewsArt
1172	70	News Artilces	See Various Highlighted Articles	2	9	96	MagArt
1393	70	News Articles	"The Military's Mess - Johnston Atoll..."	2	0	96	Mag Art
1065	70	News Articles	"Binary Weapons"	1	25	96	NewsArt
1064	70	News Articles	"DEQ briefed on weapons incineration"	1	12	96	NewsArt
1060	70	News Articles	"Chemical agent leaks at Umatilla"	1	10	96	NewsArt
1063	70	News Articles	"Army Analyzing Cost,benefits of using enzymes	1	8	96	MagArt
1040	70	News Articles	"Tooele whistleblower truns attention to UAD"	1	1	96	NewsArt
1062	70	News Articles	"Whistle-blower paints deadly scenario"	12	31	95	NewsArt
1061	70	News Articles	"State Begins Assesment of Incinerator Risks"	12	28	95	NewsArt
1189	70	News Articles	"Chem weapons whistleblower sched for court...	12	27	95	MagArt
1257	70	News Articles	"Indian Tribe Rejects Navy offer for..."	12	27	95	MagArt
767	70	News Articles	"Utah officials question start up date..."	12	5	95	MagArt
1432	70	News Articles	"Lets not rush when our health is on the line"	12	5	95	NewsArt
1431	70	News Articles	"Nerve gas incinerator const. contract near"	11	30	95	NewsArt
1038	70	News Articles	"Residents agree toxins must go,disagree..."	11	29	95	NewsArt
1430	70	News Articles	"We need dose of truth" - 'Dutch' Meyers	11	29	95	NewsArt
1585	70	News Articles	"Nerve gas incinerator plans studied again"	11	16	95	NewsArt
768	70	News Articles	"Army looks at new ways to destroy nerve gas"	11	15	95	NewsArt
1258	70	News Articles	"US-Russian Chem Weapons Incineration..."	11	15	95	MagArt

1191	70	News Articles	"Exhuming the Cold War's Deadly Crypts"	11	12	95	NewsArt
769	70	News Articles	"Army chem incinerator faces two hurdles"	11	5	95	NewsArt
770	70	News Articles	"Greatest risk is waiting" - Frank Harkenrider	11	4	95	NewsArt
771	70	News Articles	"Opponents challenge nerve gas incineration"	11	4	95	NewsArt
772	70	News Articles	"Incinerator must pass 2 environmental reviews	11	3	95	NewsArt
1039	70	News Articles	"Army pursues bioremediation on explosives..."	11	0	95	MagArt
773	70	News Articles	"DEQ calls hearings on plan for incinerator...	10	26	95	NewsArt
774	70	News Articles	"Jones to attend environment conference"	10	16	95	NewsArt
775	70	News Articles	"Law group to file suit over planned army..."	10	4	95	MagArt
776	70	News Articles	"The nerve gas incineration merry-go-round"	7	21	95	NewsArt
1880	70	News Articles	"Lt.Col.Marie Baldo takes over"	7	20	95	NewsArt
1403	70	News Articles	"Funding approved for Army incinerator"	6	20	95	NewsArt
777	70	News Articles	"It'd be quicker & safer to reconfigure M-55s	5	15	95	NewsArt
778	70	News Articles	"Hot water,sludge may be answer to mustard gas	5	9	95	NewsArt
1402	70	News Articles	"New process tested for destroying mustard.."	5	8	95	NewsArt
779	70	News Articles	"Weapons vapor leaks found"	3	29	95	NewsArt
780	70	News Articles	"Incineration said unsafe at any speed"	3	28	95	NewsArt
781	70	News Articles	"EPA fines Army over nerve gas safety error"	3	17	95	NewsArt
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783	70	News Articles	"Army responds to EPA citation"	3	14	95	PressRls
784	70	News Articles	"GAO faults Army on nerve gas plans"	3	2	95	NewsArt
785	70	News Articles	"Ore.group defends storage of nerve gas"	2	22	95	NewsArt
786	70	News Articles	"Stop Incineration" - Stuart Dick	2	4	95	NewsArt
787	70	News Articles	"Depot workers face renewed layoff threat"	2	3	95	NewsArt
788	70	News Articles	"Weapons threat exists either way"	1	31	95	NewsArt
1639	70	News Articles	"Army Releases Report on M55 rocket storage.."	1	23	95	NewsRls
789	70	News Articles	"Umatilla Depot Plan Risky, GAO says"	1	17	95	NewsArt
790	70	News Articles	"Gas Pains"	11	16	94	NewsArt
791	70	News Articles	"If You Hear the Alarm..."	10	31	94	MagArt
792	70	News Articles	Speedy St Prmt Eludes Army Inc	10	25	94	NewsArt
793	70	News Articles	"Army Wants Hastened Inc Apprl"	10	19	94	NewsArt
794	70	News Articles	"Inc Go Despite Lack of Permit"	10	18	94	NewsArt
795	70	News Articles	"Cold War Cleanup Frustrating"	10	16	94	NewsArt
796	70	News Articles	"Army Hopes to Speed Work Inc"	10	13	94	NewsArt
797	70	News Articles	"House to Incestigate Utah..."	9	27	94	NewsArt
798	70	News Articles	"Army Invest Conditions @Tooele"	9	24	94	NewsArt
799	70	News Articles	"Challenging Incineration"	9	22	94	NewsArt
800	70	News Articles	"Turning Closure to Opporunity"	9	22	94	NewsArt
801	70	News Articles	"Incinerator Success Argued"	9	21	94	NewsArt
802	70	News Articles	"Incinerator Funding Delayed"	9	21	94	NewsArt
2132	70	News Articles	"M-55 Rocket Cause for Concern"	9	21	94	NewsArt
803	70	News Articles	"UT Incinerator Ready to Burn"	9	20	94	NewsArt
804	70	News Articles	"Tooele, UT Strikingly Similar	9	20	94	NewsArt
2133	70	News Articles	Incinerator will Bring Good Jobs to Area	9	20	94	NewsArt
805	70	News Articles	"Evidence Shows Clear..."	9	12	94	NewsArt
806	70	News Articles	"Army Data was a Surprise"	9	10	94	NewsArt

807	70	News Articles	"Tiny Leaks Found..."	9	7	94	NewsArt
808	70	News Articles	"Nerve Gas Leaks in Bunker"	9	7	94	NewsArt
809	70	News Articles	"Playing Chicken w/Chem Weap"	9	1	94	NewsArt
810	70	News Articles	"Army Owes Us Answers"	8	17	94	NewsArt
811	70	News Articles	"Risk of Weapons Lowered"	8	11	94	NewsArt
812	70	News Articles	"Weap Incineration Permitting"	7	1	94	MagARt
813	70	News Articles	"Alternatives To Burning"	6	30	94	NewsArt
814	70	News Articles	"1995 Too Optimistic"	6	29	94	NewsArt
815	70	News Articles	"..Recognize Danger of Delay?"	6	8	94	NewsArt
816	70	News Articles	"Incin Eff Not Like Russia's"	5	25	94	NewsArt
817	70	News Articles	"Incinerator Delays-Big Risk"	5	24	94	NewsArt
818	70	News Articles	"In Disposing of Posion Gas"	5	22	94	NewsArt
819	70	News Articles	Mustard-gas tab: $1 billion	5	22	94	NewsArt
820	70	News Articles	State May Decide Fate	5	18	94	MagArt
821	70	News Articles	"Inc Study Skips Crucial Data"	5	11	94	NewsArt
822	70	News Articles	"DEQ Opens Hermiston Office"	5	6	94	NewsArt
823	70	News Articles	"DEQ Opens Office -Depot Proj"	5	6	94	NewsArt
824	70	News Articles	"The Env: A Growth Industry"	5	1	94	MagArt
825	70	News Articles	"Incinerator Seems to be OK.."	4	26	94	NewsArt
826	70	News Articles	"Inc Should Proceed Nerve Gas"	4	26	94	NewsArt
828	70	News Articles	"Plan- Burn Chem Divides Herm"	4	14	94	NewsArt
829	70	News Articles	"Incineration Support Tabled"	3	31	94	NewsArt
830	70	News Articles	"Critique of Incin Proposal"	3	18	94	MagArt
831	70	News Articles	"Mock Army Depot Disaster Test"	3	10	94	NewsArt
832	70	News Articles	Risk Assessment Methods	2	4	94	MagArt
833	70	News Articles	Inc Permits Demand New Tactics	2	1	94	MagArt
834	70	News Articles	"A Burning Question"	12	12	93	NewsArt
835	70	News Articles	"Tips on Fleeing Home"	12	12	93	NewsArt
836	70	News Articles	Affidavit of Publication	12	28	92	Affidavit
837	70	News Articles	Affidavit of Publication	12	15	92	Affidavit
838	70	News Articles	Cntmnte Crops, Hrt Economy	11	17	92	NewsArt
839	70	News Articles	Zapping Old Chem Weapons More Than a Burning Q	7	8	92	NewsArt
840	70	News Articles	Incinerators Spark Fears	6	9	92	NewsArt
841	70	News Articles	Weapons Burning Discussed Tonight	3	17	92	NewsArt
844	70	News Articles	Storing Aging Chemicals	10	31	91	NewsArt
845	70	News Articles	Chem Weapons Disposal Prog in Doubt	5	31	91	NewsArt
846	70	News Articles	US Plan to Burn Chem Weapons Strs Pblc Fear	5	2	91	NewsArt
847	70	News Articles	Altntv Evactn Hazmat Emerg.	12	0	90	NewsArt
848	70	News Articles	Weapons Destruction Expensive	11	18	90	NewsArt
849	70	News Articles	Johnston Atoll	11	12	90	NewsArt
850	70	News Articles	US Hlping Sviets Destroy Poisn	6	8	90	NewsArt
851	70	News Articles	Nuclear Weapons Reduction	6	2	90	NewsArt
852	70	News Articles	Cleanup for Depot Soil	12	27	89	NewsArt
853	70	News Articles	Public Health Protection	10	0	89	NewsArt
854	70	News Articles	Incineration Rouses Opposition	9	26	89	NewsArt
855	70	News Articles	Beyond Waste: Assurance Plan	9	0	89	NewsArt

856	70	News Articles	Court Rules States May Not Recover Penalties	2	28	89	Litigatn
857	70	News Articles	Weapons Incinerator Public Use	2	20	89	NewsArt
858	70	News Articles	Incinerator for Nerve Gas Only	2	17	89	NewsArt
859	70	News Articles	Stringent Oprtn Assured Dispsl of Chem Agnts	2	17	89	NewsArt
860	70	News Articles	Incin Plan Brings Criticism	2	16	89	NewsArt
861	70	News Articles	Loss of Civilian Jobs	12	30	88	NewsArt
1238	70	News Articles	"Army Cautious on Shipping Aberdeen Toxins"	11	30	88	NewsArt
862	70	News Articles	Defense Firms win Major Legal Victory	6	28	88	NewsArt
863	70	News Articles	Chemical Weapons up in Smoke	6	0	88	NewsArt
864	70	News Articles	State Fears Losing Role in Cleanup at Hanfrd	4	7	88	NewsArt
865	70	News Articles	Extend Chem. Arms Deadline	3	18	88	NewsArt
866	70	News Articles	Quandary at Aberdeen	3	15	88	NewsArt
867	70	News Articles	Army to Burn Chem Agnts Aberdn	2	24	88	NewsArt
868	70	News Articles	Delay in Plans to Burn Arms	2	1	88	NewsArt
869	70	News Articles	Lugar is Against Nerve Gas Pln	1	26	88	NewsArt
870	70	News Articles	Nerve Gas Burner Coming?	1	8	88	NewsArt
873	70	News Articles	Incinerate On-Site	5	26	87	NewsArt
874	70	News Articles	Witnsses Fght Pln Brn Chem Arm	3	4	87	NewsArt
891	70	News Articles	Report to EPA on Johnston Islnd Strge Incdnt	3	2	87	NewsArt
875	70	News Articles	Nerve Gas Inspection Lagging	2	5	87	NewsArt
876	70	News Articles	Disposal of Chemical Munitions	7	0	85	NewsArt
878	70	News Articles	Nerve Gas Poisoning in Sheep	4	15	70	NewsArt
879	70	News Articles	Dugway Accident, Sheep Kill	12	27	68	NewsArt
880	70	News Articles	"America's Toxic Messes"	10	5	0	NewsArt
881	70	News Articles	Depot Checks Weapons Weekly	0	0	0	NewsArt
882	70	News Articles	Incinerate Poison Gas	0	0	0	NewsArt
883	70	News Articles	Long-Term Strge Incrses Danger	0	0	0	NewsArt
884	70	News Articles	Incin, Safe, Pivotal Year	0	0	0	NewsArt
885	70	News Articles	Army on Hot Seat for Hazardous Waste Plan	0	0	0	NewsArt
888	70	News Articles	Closing of Fort McClellan	0	0	0	NewsArt
889	70	News Articles	Military HW Escape Rules	0	0	0	NewsArt
890	70	News Articles	Browder to Fight Weapons Disposal	0	0	0	NewsArt
1889	75	Public Outreach	Pres.executive order forces army's hand...	9	18	96	NewsRls
1722	75	Public Outreach	"The EQC will host 2 days of meetings..."	8	15	96	RadioNews
1681	75	Public Outreach	"Utah chemical arms destruction to start..."	8	14	96	NewsRls
1720	75	Public Outreach	"Torch it."	8	12	96	RadioNews
1888	75	Public Outreach	Chem Weap:New Army info shows leaks not increa	7	31	96	PressRls
1645	75	Public Outreach	"State officials admit to supressing..."	7	23	96	NewsRls
1887	75	Public Outreach	Bayh says army should consider options...	7	12	96	PressRls
1807	75	Public Outreach	Stop Chem Weapons incineration in Oregon	7	5	96	Flyer
1549	75	Public Outreach	Greenlaw Injunction at Tooele	6	12	96	Memo
1766	75	Public Outreach	Governor supports more public comment on...	6	4	96	PrsRelease
1546	75	Public Outreach	Greenpeace Documents	6	3	96	Documents
2036	75	Public Outreach	Chemical Weapons Controversy-News release	5	29	96	NewsRls
1576	75	Public Outreach	New report debunks myth on state incineration	5	22	96	Article
1886	75	Public Outreach	Action Alert	5	16	96	Flyer

1239	75	Public Outreach	"US-Russian activists issue statement on ..."	10	25	95	MagArt
1762	75	Public Outreach	Open Forum-Hermiston Community Center-11/2/95	10	12	95	MtgNotice
1764	75	Public Outreach	ChemDemil, Reviewing Alt Tech of Chem.Weapons	10	0	95	Flyer
892	75	Public Outreach	Chem. Agent Stockpile Incinerat	5	26	95	Letter
893	75	Public Outreach	CDCAC Meeting Notice	3	2	95	Notice
1763	75	Public Outreach	Medical Prep.for areas near chem.weapons sites	0	0	95	Flyer
1067	75	Public Outreach	Community Surveys by Army	11	1	94	Report
1885	75	Public Outreach	Demilitarization on Chemical Weapons	5	0	94	Brochure
1765	75	Public Outreach	Demilitarization of Chemical Weapons	8	0	93	Flyer
894	75	Public Outreach	A Chance to Comment On:D2135 Closure	1	22	93	Flyer
895	75	Public Outreach	A Chance to Comment On: Closure	12	27	91	Flyer
896	75	Public Outreach	A Chance to Comment On. Clsre	9	7	90	Flyer
897	75	Public Outreach	Intent to Jointly Deny Permit	8	30	89	Notice
898	75	Public Outreach	Public Info Needs Assessment	10	9	87	Report
899	75	Public Outreach	Radio Deny HW Treatmnt Permit	0	0	0	Announcemnt
913	75	Public Outreach	US Chem Warfare Stockpiles	0	0	0	Flyer
1882	75	Public Outreach	Monitoring Chemical Agents	0	0	0	Flyer
1883	75	Public Outreach	Chemical Weapons Incinerators	0	0	0	Flyer
1884	75	Public Outreach	Alt Methods of Disposing of stockpiled...	0	0	0	Flyer
2038	76	Pub Outreach/Army	Public notice of public comment period closure	11	12	96	Notice
2037	76	Pub Outreach/Army	Tooele Bi-Weekly update #2	11	7	96	PressRls
1890	76	Pub Outreach/Army	Updates and Happenings at UAD	10	3	96	Letter
1809	76	Pub Outreach/Army	Alt. Tech. program evaluation report	9	11	96	Report
2039	76	Pub Outreach/Army	"Continental Chemical Weapons Disposal begins"	9	0	96	Newsltr
1755	76	Pub Outreach/Army	"Disposal operations to resume at the Tooele..	8	30	96	PressRls
1842	76	Pub.Outreach/Army	News Release re: Tooele release	8	25	96	NewsRls
1892	76	Pub Outreach/Army	Chemical Event at Anniston Army Depot	8	11	96	Media Advis
1649	76	Pub Outreach/Army	Alternative Tech. Outreach Materials	7	11	96	Brochures
1623	76	Pub Outreach/Army	Press release-Utah approves disposal permit	6	26	96	Pressrls
1808	76	Pub Outreach/Army	Umatilla Area Baseline Survey	4	0	96	Report
1212	76	Pub Outreach/Army	"Army Destroys Agent-Filled Bombs..."	3	1	96	NewRls
1404	76	Pub Outreach/Army	Chem Demil Update Volume 4, Issue 1	3	0	96	Publication
1068	76	Pub Outreach/Army	Chemical Weapons Stockpile Declassified	1	22	96	Report
900	76	Pub Outreach/Army	Chem Demil Update:Army Wrkshop	11	0	95	Flyer
901	76	Pub Outreach/Army	Chem Demil Update:JACADS M-55	9	0	95	Flyer
1174	76	Pub Outreach/Army	Chemical Event at Anniston Army Depot	8	1	95	Notice
902	76	Pub Outreach/Army	Chem Demil Update:Commnty Voice	7	0	95	Flyer
903	76	Pub Outreach/Army	Chem Agent Detected	5	9	95	Advsry
904	76	Pub Outreach/Army	Chem. Demiltrztn Update	5	1	95	Flyer
905	76	Pub Outreach/Army	CSEPP Exercise	4	10	95	Exrcse
906	76	Pub Outreach/Army	Chem Demilitrztn Remedtn Actvty	3	2	95	Hndout
908	76	Pub Outreach/Army	Detects Trace Amt of Chem Agnt	2	2	95	NewsRels
907	76	Pub Outreach/Army	Chem Demilitrization Update	2	0	95	Handout
909	76	Pub Outreach/Army	Quick Facts	10	25	94	Fax
910	76	Pub Outreach/Army	Demil Prog Under Singl Command	10	1	94	Flyer
911	76	Pub Outreach/Army	Release Rprt on Alter Techn	4	1	94	Flyer

912	76	Pub Outreach/Army	What's Stored at Umatilla	0	0	0	Flyer
1173	76	Pub Outreach/Army	JACADS - Johnston Atoll Chemical Agent Disp.	0	0	0	Brochure
2041	77	Pub Outreach/DEQ	UAD Community Assessment Tracking Survey"	7	0	96	Report
1488	77	Pub Outreach/DEQ	Meeting Notice Open House 4-27-96	4	22	96	Notice
1891	77	Pub Outreach/DEQ	Pub comment opens on proposed UAD incinerator	4	3	96	NewRlse
1405	77	Pub Outreach/DEQ	EQC UAD Briefings for chem weapon facility	3	26	96	Notice
2307	77	Pub Outreach/DEQ	Open Forum-Risk Assessment	11	2	95	Cassette
2308	77	Pub Outreach/DEQ	Open Forum-Risk Assessment	11	2	95	Cassette
914	77	Pub Outreach/DEQ	Meeting Notice Open Forum	10	12	95	Flyer
915	77	Pub Outreach/DEQ	Fact Sht #4 Risk Assess. Basics	8	10	95	Flyer
916	77	Pub Outreach/DEQ	Mtg. Notice CDCAC	8	2	95	Flyer
917	77	Pub Outreach/DEQ	Topics at Umatilla Pub Out	7	25	95	Hndout
919	77	Pub Outreach/DEQ	Meeting Notice CDCAC .	4	5	95	Notice
1486	77	Pub Outreach/DEQ	DEQ to hold open house on proposed UMCDF	11	10	94	Newsrls
1185	77	Pub Outreach/DEQ	UADC Fact Sheet #2 - Environmental Permits	8	0	94	Flyer
918	77	Pub Outreach/DEQ	Hrmstn Progress Report & To Do	5	23	94	Report
920	77	Pub Outreach/DEQ	UADC Weapons Destruction Fact Sheet #1	0	0	0	FctSheet
921	77	Pub Outreach/DEQ	Spanish Fact Sheet	0	0	0	FactSheet
922	77	Pub Outreach/DEQ	DEQ Permits and the Public Process	0	0	0	Hndout
1577	78	Pub Outreach/EPA	Revised Technical Standards for HW Combust.	5	20	96	Memo
1893	78	Pub Outreach/EPA	Strategy Update:HW minimization & combustion	3	0	96	NewsLetter
1187	78	Pub Outreach/EPA	Response to KHarris Letter	2	6	96	Letter
923	78	Pub Outreach/EPA	Waste Minimization	9	1	94	Flyer
2305	78	Pub Outreach/EPA	EPA Admin Announces New HW Rdctn & Cmbstn Stra	5	18	93	Report
924	78	Pub Outreach/EPA	National Priorities List Sites	9	1	91	Flyer
925	78	Pub Outreach/EPA	Design & Constr of RCRA/CERCLA	5	1	91	Fax
1069	78	Pub Outreach/EPA	Understanding Env. Health Risks...	9	0	90	Pamphlet
2083	80	CSEPP	Comments to be entertained by EQC	11	13	96	Letter
2075	80	CSEPP	November 5-6, 1996 Agenda Proposal	10	14	96	Memo
1894	80	CSEPP	Draft UMCD compliance requirements & schedule	10	2	96	List
1895	80	CSEPP	CAIR plan sycronization Time period H(sync 1)	10	1	96	Report
1896	80	CSEPP	Response to G&DNelson 4/11/96 letter	9	23	96	Letter
1698	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
1699	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
1700	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
1701	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
1702	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
1697	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	15	96	Letter
1810	80	CSEPP	Governor's CSEPP concerns for FEMA and Army	7	1	96	Letter
2081	80	CSEPP	Permit Conditions II.H.4.b and II.H.4.c	6	20	96	Letter
2082	80	CSEPP	Sufficient level of Preparedness now exists	6	17	96	Letter
1624	80	CSEPP	CSEPP National Conference - 5/21-24/96	5	29	96	Memo
1696	80	CSEPP	Emergency Medical Preparedness Plan	5	29	96	Letter
1511	80	CSEPP	CSEPP Hazard Specific Annex to the state EOP	5	15	96	Letter
1898	80	CSEPP	CSEPP Exercise 5/9/95 report	5	14	96	Memo
1695	80	CSEPP	CSEPP Hazard Specific Annex to State EOP	5	13	96	Memo

1899	80	CSEPP	Personal Protective Equipment	5	5	96	Memo
1578	80	CSEPP	CSEPP Exercise, May 1,1996	5	2	96	Memo
1547	80	CSEPP	Chemical Accident/Incident Response Assist...	4	30	96	Report
1897	80	CSEPP	Letter regarding emergency reponse	4	17	96	Letter
1487	80	CSEPP	April 5,96 Meeting Report	4	12	96	Report
1694	80	CSEPP	IRZ/PAZ Census Data	2	21	96	Memo
1213	80	CSEPP	Comments on "Appendix M" draft	2	12	96	Letter
1175	80	CSEPP	Reply to January 23-25 CSEPP Mtg	1	30	96	Letter
1043	80	CSEPP	Appendix M to CSEPP Planning Guidance	1	9	96	Letter
1070	80	CSEPP	Response to request for permit denial	1	9	96	Letter
926	80	CSEPP	Director Opposes Incineration	10	1	95	Article
927	80	CSEPP	Response to Recent Inquires	9	26	95	Memo
928	80	CSEPP	Emergency Public Info. Instrctn	9	25	95	Booklet
929	80	CSEPP	Warning you in an Emergency	9	25	95	Flyer
930	80	CSEPP	Status Update on UADA Progress	9	19	95	Letter
931	80	CSEPP	UMDA Mitigation Program	8	26	95	Memo
932	80	CSEPP	CAIRA Plan Support Requirement	8	16	95	Memo
1691	80	CSEPP	Recovery Presentation/Pendleton	7	12	95	Report
933	80	CSEPP	Reentry/Restoration Symposium	5	25	95	Letter
934	80	CSEPP	Reentry/Restoration Symposium	4	24	95	Letter
1214	80	CSEPP	Chemical Accident/Incident response...	4	24	95	Report
935	80	CSEPP	Issue of PPE	4	10	95	Letter
936	80	CSEPP	Symposium on Recovery Issues	4	5	95	Report
937	80	CSEPP	CDCAC Mtg Handouts	4	5	95	Handouts
938	80	CSEPP	Arrangements for Meeting	2	24	95	Letter
939	80	CSEPP	FY 95 Funds	2	23	95	Letter
940	80	CSEPP	Clarification of a Misundrstnd	2	9	95	Letter
941	80	CSEPP	Briefing on issues of Concern	2	7	95	Letter
1689	80	CSEPP	Emergency Response Concept Plan for CSEPP	1	27	95	Report
1688	80	CSEPP	Planning Guidelines for Recov.Phase Act.-CSEPP	11	22	94	Report
	80	CSEPP	CSEPP Library Materials	7	1	94	Biblio
1687	80	CSEPP	Re-entry/Restoration Plan Workbook	6	0	94	Wrkbk
942	80	CSEPP	Updated Schedules	10	18	93	Rlse/Fax
	80	CSEPP	Env Monitoring Chem. Welfare Agents	10	11	93	Memo
1658	80	CSEPP	Public Opinion Research	10	0	93	Report
943	80	CSEPP	The Facts	6	7	93	Fctsht/Memo
944	80	CSEPP	The Facts	6	1	93	FctSht
945	80	CSEPP	The Facts	4	2	93	FctSht
946	80	CSEPP	The Facts	3	10	93	FctSht
947	80	CSEPP	Calendar, Emerg. Public Info	0	0	93	Calendar
952	80	CSEPP	Emergency Operations Plan CSEPP Appendices	10	23	90	Report
948	80	CSEPP	Technical Orientation Wrkshop	8	24	90	Agenda
949	80	CSEPP	FY 1990 CSEPP CCA Funding	4	17	90	Tables
953	80	CSEPP	Draft Management Plan for Emerg. Response	7	0	89	Report
954	80	CSEPP	Implementing Procedures for Chem Accdnts	4	0	88	Report
955	80	CSEPP	Implementing Procedures for Chem Accdnts	4	0	88	Report

950	80	CSEPP	Record of Decision	2	23	88	Release
956	80	CSEPP	Emergency Response Concept Plan	7	0	87	Report
951	80	CSEPP	Emerg. Prog. Funding Studies	0	0	0	Report
957	80	CSEPP	CSEPP Information Folder	0	0	0	Folder
2077	81	CAIRA Plan & Update	Change 1 to UMCD CAIRA Plan, dated 4/96	7	31	96	Memo
2076	82	CSDP	N. Carolina Protocol for Indirect Exposure RA	8	0	96	Report
958	82	CSDP	CSDP What is it?	1	8	90	Hndout
959	82	CSDP	Update, Response Activities	9	18	89	Memo
960	82	CSDP	RCRA Meeting, CSD, Tooele	11	29	88	Agenda
961	82	CSDP	RCRA Part B App. Tooele Depot	11	3	88	Memo
962	82	CSDP	Implementation Plan	3	15	88	Report
963	82	CSDP	Tech Advisory Comite, Membrshp	6	5	87	Letter
964	82	CSDP	Chem Stockpile Dispodal Study	5	27	87	Letter
965	82	CSDP	CSD Plan Supplement	3	27	87	Letter
1660	82	CSDP	CSDP Draft Programatic EIS	7	1	86	Report
966	82	CSDP	Umatilla Depot Activity Status	0	0	0	Report
967	82	CSDP	Program Overview	0	0	0	Report
968	82	CSDP	The US Chem Stckple Dispsl Prog	0	0	0	Hndout
2103	85	CDCAC	CDCAC Meetings listed as function for DEQ Rqmn	11	13	96	Letter
2104	85	CDCAC	Clarification of CDCAC Mtg listing for DEQ Rqm	11	13	96	Letter
2105	85	CDCAC	Meeting Notice, 11/12/96 in Hermiston	11	12	96	Notice
2106	85	CDCAC	Regarding 10 Min. Prsntatn by Karyn Jones	10	24	96	Memo
2107	85	CDCAC	Orientation for New Executives/Brd/Commmssn Me	10	10	96	Memo
2108	85	CDCAC	Transmittal of Review & Eval of Alt Tech Rpt	10	10	96	Memo
1905	85	CDCAC	Oct 7, 1996 CDCAC Meeting Notice	10	7	96	Notice
2129	85	CDCAC	Remarks of Dr. R Magee Before CDCAC 10/7/96	10	7	96	Remarks
1904	85	CDCAC	Transmittal of NRC "Review & Eval of Alt Tech"	9	26	96	Memo
2109	85	CDCAC	Memorandum of Understanding	9	23	96	Memo
1811	85	CDCAC	Response to RDaniels letter	8	15	96	Letter
1812	85	CDCAC	Additional response to 6/23/96 JStengle letter	8	8	96	Letter
1801	85	CDCAC	Response to JStengle 6/23/96 letter	7	25	96	Letter
1650	85	CDCAC	Memorandum of Understanding	7	19	96	MOU
1902	85	CDCAC	July 18, 1996 CDCAC Meeting Notice	7	18	96	Notice
1903	85	CDCAC	Alternative Tech Handouts from 7/18/96 meeting	7	18	96	Handouts
1901	85	CDCAC	Transmittal of requested material	7	15	96	Memo
2111	85	CDCAC	Effectiveness of DEQ Staff	7	15	96	Letter
1900	85	CDCAC	Congrats to KJones for re-election as Chair	7	5	96	Letter
1597	85	CDCAC	Letter from JStengle	6	23	96	Letter
1489	85	CDCAC	May 21,96 meeting notice and agenda	4	19	96	Letter
1490	85	CDCAC	May 21,96 meeting notice and agenda	4	19	96	Letter
1491	85	CDCAC	May 21,96 meeting notice and agenda	4	19	96	Letter
1492	85	CDCAC	May 21,96 meeting notice and agenda	4	19	96	Letter
1493	85	CDCAC	May 21,96 meeting notice and agenda	4	19	96	Letter
1494	85	CDCAC	May 21,96 meeting notice and agenda	4	19	96	Letter
1495	85	CDCAC	May 21,96 meeting notice and agenda	4	19	96	Letter
1496	85	CDCAC	May 21,96 meeting notice and agenda	4	19	96	Letter

1406	85	CDCAC	CDCAC Roster	3	22	96	Roster
1072	85	CDCAC	FY96 Application for FEMA Funding	2	9	96	Application
969	85	CDCAC	Intent of EQC Meeting	12	21	95	Letter
970	85	CDCAC	EQC Meeting Agenda	12	18	95	Lttr/Fax
1041	85	CDCAC	Future Oregon CAC Meetings	12	8	95	Letter
1071	85	CDCAC	Overheads: Overview of Chem Demil Program	11	29	95	Overview
1215	85	CDCAC	Meeting Notice - 11-29-95	11	10	95	Notice
971	85	CDCAC	Ag Impact Assessment Workshop	11	1	95	Letter
972	85	CDCAC	Meeting Notice	9	20	95	Notice
973	85	CDCAC	Storage Issues	8	9	95	Memo
974	85	CDCAC	Meeting Notice CDCAC Good Shepard Commnty	4	5	95	Notice
975	85	CDCAC	Meeting Notice CDCAC State Office Building	1	23	95	Notice
976	85	CDCAC	Meeting Notice CDCAC Yellowhawk Center	12	14	94	Notice
977	85	CDCAC	Meeting Notice CDCAC Good Shepard Commnty	10	12	94	Notice
978	85	CDCAC	Meeting Notice CDCAC Good Shepard Commnty	6	29	94	Notice
979	85	CDCAC	Asses. Final Alt. Tech. Report	4	12	94	Letter
980	85	CDCAC	CDCAC Appointed By BRoberts Under Fed Law	8	6	93	Cntrct
981	85	CDCAC	Invite to 1st CSEPP Meeting	8	22	90	Letter
982	85	CDCAC	Automation Workshops	8	22	90	Memo
983	85	CDCAC	Invite to Hearing on Dispostn Chem Agent	3	16	87	Letter
2102	86	FEMA/CDCAC Agrmnt	Cooperative Agreement with LMarsh Sig.	9	26	96	Agreement
1814	86	FEMA/CDCAC Agrmnt	Req.to extend coop agreemnt performance period	9	19	96	Letter
1813	86	FEMA/CDCAC Agrmnt	Transcription Invoice for CDCAC	7	2	96	Letter
1579	86	FEMA/CDCAC Agrmnt	EMS-96-CA-0037 FY 1996 Cooperative Agreement	5	6	96	Letter
1906	86	FEMA/CDCAC Agrmnt	Cooperative Agreement - FY94	3	29	96	Letter
1074	86	FEMA/CDCAC Agrmnt	Cooperative Agreement Close-out FY94	2	2	96	Letter
1075	86	FEMA/CDCAC Agrmnt	Itemized Expenses Incurred by CDCAC	2	2	96	Report
1176	86	FEMA/CDCAC Agrmnt	Financial Statement Ending 12/31/95	1	20	96	Reports
1907	86	FEMA/CDCAC Agrmnt	Funding for CDCAC	4	10	95	Letter
1254	86	FEMA/CDCAC Agrmnt	Financial Assistance Application	6	3	94	Application
1253	86	FEMA/CDCAC Agrmnt	Invitation to apply for financial assistance	5	13	94	Letter
1073	86	FEMA/CDCAC Agrmnt	Memorandum of Understanding - CDCAC/DEQ	2	16	94	Memo
1917	87	Combustion Risk	JACADS Risk Related Issues	10	2	96	Memo
2085	87	Combustion Risk	Ag Impact Assess Plan for Baseline Study Tooel	10	2	96	Report
1916	87	Combustion Risk	Transmittal of Draft Pre-Trial Burn R.A:-UMCDF	9	24	96	Memo
2086	87	Combustion Risk	Greenlaw Preliminary Risk Analysis Incin Prog	9	0	96	Report
1767	87	Combustion Risk	Information from RTI	8	28	96	Report
1603	87	Combustion Risk	Breastmilk Pathway of Concern Pre-Trial Burn R	8	7	96	Memo
2087	87	Combustion Risk	RA Protocol Chem Agent Disposal Facility	7	30	96	Letter
1703	87	Combustion Risk	Met info from Pat Hanrahan	7	11	96	EMail
1915	87	Combustion Risk	Transmittal of "US Chem Destr.Program:Views...	7	3	96	Memo
1604	87	Combustion Risk	Comparisons between quan.R.A. & Comp.R.A.	6	26	96	Letter
1605	87	Combustion Risk	Public Participation Record for Screening R.A.	6	20	96	Report
1598	87	Combustion Risk	JACADS Risk Assessment	5	28	96	Report
1914	87	Combustion Risk	Agri. Risk Assessmnt: material & transcript	5	15	96	Report
1913	87	Combustion Risk	Risk Assessment questions - Kalama Chemical in	5	3	96	Memo

1498	87	Cumbustion Risk	Utah DEQ Risk Assessment Overhead	4	15	96	Overheads
1580	87	Combustion Risk	Notice of Intent to Sue (TOCDF)	4	8	96	
1912	87	Combustion Risk	Various comments on Utah Risk Assessment	4	1	96	Comments
2269	87	Combustion Risk	Draft Pre-Trial RA Proposed at Umatilla Chem.	4	0	96	Report
2268	87	Combustion Risk	Draft Pre-Trial RA Proposed at Umatilla Chem.	4	0	96	Report
1651	87	Combustion Risk	Suppl.Risk Assess.Guidance for Superfund-Draft	3	27	96	Report
1497	87	Combustion Risk	Comparative Risk Assessment Option	3	0	96	Report
1911	87	Combustion Risk	Risk Assessment protocol for JACADS	2	28	96	Report
1550	87	Combustion Risk	Review of the ANCDF SRA	2	26	96	Report
827	87	Combustion Risk	Review Draft Pre-Risk Assessment	2	22	96	Report
1179	87	Combustion Risk	Re: Letter dated 11/22/95	2	12	96	Letter
1178	87	Combustion Risk	Parameters Concerning UMAD Pre-trial R.A.	2	9	96	Memo
1412	87	Combustion Risk	Tooele Chem Demil Screening Risk Assessment	2	0	96	Report
1085	87	Combustion Risk	Various ltrs,desc.,agendas re crop assessmnt	1	23	96	Letters
1086	87	Combustion Risk	Air-to-leaf Transfer...	1	23	96	Memo
1084	87	Combustion Risk	Notes on "Dec.95 Implementation Guidance"	1	18	96	Notes
1083	87	Combustion Risk	Insertion of Dioxin & Bromoform	1	15	96	Spreadsheet
1081	87	Combustion Risk	Ervosivity and Evapotranspiration Doc.	1	14	96	Memo
1082	87	Combustion Risk	Surface water flows	1	14	96	Memo
1255	87	Combustion Risk	Clarification of Erosivity	1	12	96	FAX
1079	87	Combustion Risk	Watersheds	1	11	96	EMail
1080	87	Combustion Risk	WTI Risk Assessment Peer Review Meeting	1	11	96	Notes
1078	87	Combustion Risk	Response to Risk Assessment Wkplan comments	1	9	96	Letter
1411	87	Combustion Risk	Crop Health Risk Assessment	12	12	95	Report
984	87	Combustion Risk	WTI Workshop	11	30	95	FederlReg
1413	87	Combustion Risk	Final Screening Risk Assessment - Anniston,AL	11	30	95	Report
1414	87	Combustion Risk	Final Screening Risk Assessment - Anniston,AL	11	30	95	Report
1415	87	Combustion Risk	Final Screening Risk Assessment - Anniston,AL	11	30	95	Report
1416	87	Combustion Risk	Final Screening Risk Assessment - Anniston,AL	11	30	95	Report
1417	87	Combustion Risk	Final Screening Risk Assessment - Anniston,AL	11	30	95	Report
1177	87	Combustion Risk	Comment on Pre-Trial Burn Risk Work Plan	11	27	95	Letter
1076	87	Combustion Risk	Comments on Risk Assessment Workplan	11	22	95	Comments
986	87	Combustion Risk	Meeting Notice Open Forum	11	2	95	Notice
2088	87	Combustion Risk	Request for Columbia Basin GIS Data	11	1	95	Letter
1606	87	Combustion Risk	Risk Ass. for Waste Tech Ind. HazWaste Facilit	11	0	95	Report
985	87	Combustion Risk	JACADS meeting W/ Public	10	30	95	Memo
1154	87	Combustion Risk	UMDA Meteorological Data Comparison	5	3	95	Letter
1910	87	Combustion Risk	Study to determine if off-site meteorological.	4	3	95	Report
1047	87	Combustion Risk	Revised Meteorological Monitoring Plan	2	28	95	Lttr/Rpt
1840	87	Combustion Risk	Health Risk Assessment Protocol for ANCDF	1	19	95	Report
872	87	Combustion Risk	Determination of Acute Toxicity Exp Lvls	1	0	95	Report
1909	87	Combustion Risk	Suppl.guidance for Ecologic Risk Assessments	10	14	94	Report
2089	87	Combustion Risk	Representative Hanford Radiation Dose Estimate	5	21	94	Pamphlet
2306	87	Combustion Risk	Exposure Assessment Guidance for RCRA HW	4	0	94	Report
1908	87	Combustion Risk	Guidance for upset conditions, Appendix E-1	8	0	90	Report
2323	87	Combustion Risk	Methodology for Assessing Health Risks	1	0	90	Report

	88	Various Dioxin Info	**Note:** Indvdl Docs Do Not have Admin #				
1002	90	Old Part B	Furnace Scope of Work	11	5	91	Graph
1003	90	Old Part B	Burnout and Removal of Deactivatn Furnance	9	30	91	Memo
1004	90	Old Part B	Progress Update Interim Remediatn Actn	7	26	91	Memo
987	90	Old Part B	RCRA Application	8	0	90	Applictn
988	90	Old Part B	RCRA Application	8	0	90	Applictn
989	90	Old Part B	RCRA Application	8	0	90	Applictn
990	90	Old Part B	RCRA Application	8	0	90	Applictn
991	90	Old Part B	RCRA Application	8	0	90	Applictn
992	90	Old Part B	RCRA Application	8	0	90	Applictn
993	90	Old Part B	RCRA Application	8	0	90	Applictn
994	90	Old Part B	RCRA Application	8	0	90	Applictn
995	90	Old Part B	RCRA Application	8	0	90	Applictn
996	90	Old Part B	RCRA Application	8	0	90	Applictn
997	90	Old Part B	RCRA Application	8	0	90	Applictn
998	90	Old Part B	RCRA Application	8	0	90	Applictn
999	90	Old Part B	RCRA Application	8	0	90	Applictn
1000	90	Old Part B	RCRA Application	8	0	90	Applictn
1001	90	Old Part B	RCRA Application	8	0	90	Applictn
1005	90	Old Part B	Response to Phone conversation	7	26	90	Fax
1006	90	Old Part B	Deactivatn Furnace, Closure Plan	11	15	89	Letter
1007	90	Old Part B	Installation Spill Contingency Plan	5	18	89	Rvsd Pages
1008	90	Old Part B	OB/OD Brning, Brn Trays, Land	2	22	89	Letter
1009	90	Old Part B	CSD, Subseqnt Cmmts to Dec.8 88	12	14	88	Letter
1010	90	Old Part B	RCRA Part B App For Tooele CSDS Comments	12	8	88	Letter
1017	90	Old Part B	RCRA Support Documents	9	0	87	Report
1011	90	Old Part B	CSDP	7	24	87	Table
1018	90	Old Part B	RCRA HW Permit Application	5	29	87	Report
1661	90	Old Part B	RCRA Hazardous Waste Permit Application	5	0	87	Report
1662	90	Old Part B	RCRA Hazardous Waste Permit Application	5	0	87	Report
1663	90	Old Part B	RCRA Hazardous Waste Permit Application	5	0	87	Report
1664	90	Old Part B	RCRA Hazardous Waste Permit Application	5	0	87	Report
1665	90	Old Part B	RCRA Hazardous Waste Permit Application	5	0	87	Report
1012	90	Old Part B	RCRA Part B Permit Review	11	6	86	Memo
1013	90	Old Part B	Review of Documents on Chemical Agents	11	6	86	Memo
1014	90	Old Part B	Supplement to RCRA Part B App	10	20	86	Letter
1019	90	Old Part B	RCRA HW Permit Application	9	15	86	Report
1020	90	Old Part B	RCRA HW Permit Application	9	15	86	Report
1021	90	Old Part B	RCRA HW Permit Application	9	15	86	Report
1022	90	Old Part B	RCRA HW Permit Application	9	15	86	Report
1656	90	Old Part B	RCRA Hazardous Waste Permit Application	9	0	86	Report
1657	90	Old Part B	RCRA Hazardous Waste Permit Application	9	0	86	Report
1015	90	Old Part B	Inspection, Closure, Contingency Plan	0	0	0	Memo
1016	90	Old Part B	Part B App. Nerve Agent Incinerator	0	0	0	Letter
2257	92	EQC Documents	Tape 1, Sides 1 & 4,EQC in Pendleton	11	22	96	Cassette
2258	92	EQC Documents	Tape 2, Side 6,2, and 5, EQC in Pendleton	11	22	96	Cassette

2259	92	EQC Documents	Tape 3,Side 3, EQC in Pendleton	11	22	96	Cassette
2044	92	EQC Documents	DEQ Directors Recommendations to EQC on BAT	11	22	96	Fax
2045	92	EQC Documents	Proposed Prmt Conditions from Commission Mtgs	11	22	96	Attch B
2046	92	EQC Documents	Dept. Recommended Permit Cndtns from Commsn Mt	11	22	96	Cndtn
2047	92	EQC Documents	Qstns about proposed UMCDF	11	21	96	Memo
2050	92	EQC Documents	Transmittal of Public Comments	11	18	96	Memo
2048	92	EQC Documents	Concerns regarding Emergency Preparedness Issu	11	15	96	Letter
2146	92	EQC Documents	Tape 1, Side 1 and Side 3	11	15	96	Cassette
2147	92	EQC Documents	Tape 2, Side 2 and Side 4	11	15	96	Cassette
2148	92	EQC Documents	Tape 3,	11	15	96	Cassette
2049	92	EQC Documents	Response to Umatilla Documents for 11/15/96	11	14	96	Memo
2051	92	EQC Documents	EQC Meeting 11/14-15/96 in Portland	11	14	96	Agenda
2149	92	EQC Documents	Tape 3	11	14	96	Cassette
2150	92	EQC Documents	Tape 2, Side 2 and Side 4	11	14	96	Cassette
2151	92	EQC Documents	Tape 1, Side 1 and Side 3	11	14	96	Cassette
2055	92	EQC Documents	Transmittal of Umatilla Doc in Prep for 11/15/	11	6	96	Memo
2056	92	EQC Documents	Best Available Technology Finding	11	5	96	Memo
2057	92	EQC Documents	Notice to Persons Interested in Proposed Incin	11	0	96	Notice
2072	92	EQC Documents	Copy of OSU Dioxin Paper	10	31	96	Memo
2058	92	EQC Documents	Rpt to Questions on Dioxin Formation at UMCDF	10	29	96	Report
2062	92	EQC Documents	EQC Work Session 9-27-96	10	27	96	Minutes
2053	92	EQC Documents	EQC Meeting 11/22/96 in Pendleton	10	24	96	Agenda
2052	92	EQC Documents	EQC Meeting 11/22/96 in Pendleton	10	23	96	Agenda
2054	92	EQC Documents	EQC Meeting 11/14-15/96 in Portland	10	23	96	Agenda
2059	92	EQC Documents	EQC Minutes 10/11/96 Regular Meeting	10	11	96	Minutes
2060	92	EQC Documents	Handout for 10-11-96 EQC Meeting	10	11	96	Hndout
2157	92	EQC Documents	EQC Meeting, Umatilla Portion	10	11	96	Cassette
1825	92	EQC Documents	EQC Meeting Agenda for 10/10-11/1996	10	10	96	Agenda
2061	92	EQC Documents	EQC Work Session 10-10-96	10	10	96	Minutes
2137	92	EQC Documents	Side 6 and Side 8	9	27	96	Cassette
2138	92	EQC Documents	Side 5 and Side 7	9	27	96	Cassette
1822	92	EQC Documents	EQC Meeting Agenda for 9/27/96	9	27	96	Agenda
1823	92	EQC Documents	Discussion of proposed permit condition-UMCDF	9	27	96	Report
1824	92	EQC Documents	Discussion of ORS466.055 Findings	9	27	96	Report
2063	92	EQC Documents	Discussion of ORS 466.055b Findings	9	27	96	Memo
2071	92	EQC Documents	Executive Summary from the NRC report on AltTe	9	25	96	Memo
1821	92	EQC Documents	Response to HLorenzen's 9/5/96 letter	9	17	96	Letter
2064	92	EQC Documents	EQC 9-27-96 Meeting in Portland	9	13	96	Agenda
2070	92	EQC Documents	November EQC Meeting	9	13	96	Memo
1820	92	EQC Documents	EQC Worksession 9/27/96 list of goals	9	12	96	Memo
1775	92	EQC Documents	Leak incindent at Tooele, Utah	9	10	96	Report
1774	92	EQC Documents	Public survey and public info activities	8	31	96	Memo
1769	92	EQC Documents	Agenda Item H, EQC Meeting 8/23/96 BAT	8	28	96	Letter
1768	92	EQC Documents	UMCDF OEM Presentation to EQC	8	27	96	Letter
1819	92	EQC Documents	EQC Meeting notes from 8/22/96	8	27	96	Notes
2139	92	EQC Documents	Tape 1, EQC Meeting	8	23	96	Cassette

2140	92	EQC Documents	Tape 2, EQC Meeting	8	23	96	Cassette
2141	92	EQC Documents	Tape 3, EQC Meeting	8	23	96	Cassette
1706	92	EQC Documents	EQC Meeting Agenda for 8/22-23/96	8	22	96	Notice
1930	92	EQC Documents	Written Testimony from KJones 8/22/96	8	22	96	Reports
1931	92	EQC Documents	Letter from Rep.Chuck Norris	8	22	96	Letter
2144	92	EQC Documents	Tape 1, EQC Meeting, Afternoon Session	8	22	96	Cassette
2145	92	EQC Documents	Tape 2, EQC Meeting, Afternoon Session	8	22	96	Cassette
2142	92	EQC Documents	Tape 1, EQC Meeting, Evening Session	8	22	96	Cassette
2143	92	EQC Documents	Tape 2, EQC Meeting, Evening Session	8	22	96	Cassette
1929	92	EQC Documents	DWysocki unable to attend August EQC meeting	8	13	96	Letter
1772	92	EQC Documents	Request for attendance to 8/22/96 EQC Mtg	8	8	96	Letter
1928	92	EQC Documents	UAD items for 8/22-23/96 EQC Meeting	8	8	96	Memo
1704	92	EQC Documents	Transmittal of additional info on UMCDF	8	7	96	Memo
1705	92	EQC Documents	Transmittal of info for EQC Meeting 8/22-23/96	8	7	96	Fax
1817	92	EQC Documents	EQC 7/11/96 worksession R.A.response issues	7	11	96	Report
1818	92	EQC Documents	Chemical Demil Program presentation for 7/11/9	7	11	96	Report
1927	92	EQC Documents	Transmittal of "US Chem Destr.Program:Views...	7	3	96	Memo
1602	92	EQC Documents	Transmittal of Documents to EQC	7	2	96	Memo
1601	92	EQC Documents	Invitation to submit Alt.Tech videos	7	2	96	Letter
1600	92	EQC Documents	Invitation to submit Alt.Tech videos	7	2	96	Letter
1599	92	EQC Documents	Invitation to submit Alt.Tech videos	7	2	96	Letter
1815	92	EQC Documents	Invitation to submit Alt.Tech videos	7	2	96	Letter
1626	92	EQC Documents	EQC Meeting Agenda for 6/11-12/96	6	27	96	Agenda
1652	92	EQC Documents	Interagency Agreement - DEQ & OSU	6	25	96	Agreemnt
1625	92	EQC Documents	Response to James Quigley 5/30/96 letter	6	24	96	Letter
1551	92	EQC Documents	Ltr to JHaley w/MHarrison Testimony to EQC	5	31	96	Letter
1552	92	EQC Documents	Ltr to JGorrell requesting additional info	5	31	96	Letter
1553	92	EQC Documents	May 17 Umatilla Discussion list of speakers	5	17	96	Memo
1926	92	EQC Documents	Karyn Jones' Written Testimony for 5/17/96 EQC	5	17	96	Reports
2065	92	EQC Documents	Status of Emergency Response	5	17	96	Prsntation
2066	92	EQC Documents	Material Submitted by Karyn Jones	5	17	96	Report
2067	92	EQC Documents	Comments of Destruction of Chem Weapons at UAD	5	17	96	Cmmnts
1513	92	EQC Documents	EQC Worksession Agenda 5/16/96	5	16	96	Agenda
1583	92	EQC Documents	EQC Meeting Agenda for 5/16-17/96	5	16	96	Agenda
1584	92	EQC Documents	Air Quality Permit Overview for 5/16/96 EQC	5	16	96	Overheads
1925	92	EQC Documents	EQC Worksession air presentation 5/16/96	5	16	96	Overheads
2135	92	EQC Documents	EQC Work Session Potential Alt. to Incin	5	16	96	Video
2136	92	EQC Documents	EQC Work Session Potential Alt. to Incin	5	16	96	Video
2152	92	EQC Documents	EQC Work Session, Tape 1	5	16	96	Cassette
2153	92	EQC Documents	EQC Work Session, Tape 2	5	16	96	Cassette
2154	92	EQC Documents	EQC Work Session, Tape 3	5	16	96	Cassette
2155	92	EQC Documents	EQC Work Session, Tape 4	5	16	96	Cassette
2156	92	EQC Documents	EQC Work Session, Tape 5	5	16	96	Cassette
2068	92	EQC Documents	Umatilla Chemical Weapons Destruction Permits	5	7	96	Letter
1924	92	EQC Documents	Transmittal of Alternative Technologies info	5	3	96	Memo
1264	92	EQC Documents	Handout to EQC from Brett McKnight, DEQ	5	0	96	Binder

2069	92	EQC Documents	Delay Granting of the Army's Permit	4	30	96	Letter
1919	92	EQC Documents	Minutes for 4/12/96 EQC Meeting	4	22	96	Minutes
1512	92	EQC Documents	Letter to Mick Harrison	4	19	96	Letter
1562	92	EQC Documents	Response to OEC ltr dated 4/9/96 by JCharles	4	18	96	Memo
1920	92	EQC Documents	Emergency Update for 5/17/96 EQC Meeting	4	18	96	Letter
1921	92	EQC Documents	Emergency Update for 5/17/96 EQC Meeting	4	18	96	Letter
1922	92	EQC Documents	Emergency Update for 5/17/96 EQC Meeting	4	18	96	Letter
1923	92	EQC Documents	Participation in Alts to Incin. discussion	4	18	96	Letter
1502	92	EQC Documents	HW Permit Presentation - Overheads	4	12	96	Overheads
1501	92	EQC Documents	Confirmation of Attendance to May 16 mtg	4	10	96	Letter
1500	92	EQC Documents	Letter from John Charles re: EQC Decisions	4	9	96	Letter
1918	92	EQC Documents	Umatilla Chemical Weapons Incinerators	3	15	96	Memo
1581	92	EQC Documents	Minutes of the 250th Meeting	2	23	96	Minutes
1216	92	EQC Documents	Presentation to the EQC	2	9	96	Letter
1217	92	EQC Documents	Presentation to the EQC	2	6	96	Letter
1042	92	EQC Documents	Provide Comments; Video	12	26	95	Letter
1032	92	EQC Documents	Adoption of Rules Chapter 340	4	25	86	Memo
2114	94	Meeting Notes	Natl Chem Agent Demil Wrkgrp Mtg	11	14	96	Memo
2112	94	Meeting Notes	Next Scheduled Teleconference 10/17/96	10	9	96	Fax
1937	94	Meeting Notes	Papers from Env.Forum II-Salt Lake,UT 10/3/96	10	3	96	Papers
1936	94	Meeting Notes	Agenda-Workgroup Teleconference 10/7/96	9	24	96	Fax
1935	94	Meeting Notes	Exec summary of Env.Forum Denver,CO 7/10/96	9	23	96	Transcripts
2113	94	Meeting Notes	Chem Agent Demil Wrkgrp Conference Call Summar	8	13	96	Summary
1837	94	Meeting Notes	Chem Demil Forum - Denver 7/10/96	7	10	96	Notes
1836	94	Meeting Notes	Chem.Demil.Wkgrp - Conf.Call Summary - 6/11/96	6	11	96	Summary
1554	94	Meeting Notes	Chem Demil Conf. Call agenda for 6/11/96	6	5	96	Agenda
1934	94	Meeting Notes	Agenda-munitions rule conf call/mtg 5/29/96	5	20	96	Agenda
1503	94	Meeting Notes	Dioxin and Health Truth or Consequences	4	13	96	Flyer
1933	94	Meeting Notes	Dioxin Conference - 4/13/96	4	13	96	Papers
1504	94	Meeting Notes	Chem Demil Workgroup Conference Call	4	8	96	Memo
1226	94	Meeting Notes	Teleconference w/Army re:Various Issues	3	6	96	Agenda
1225	94	Meeting Notes	Notice for March 8,96 Teleconference	3	4	96	Notice
1224	94	Meeting Notes	Sequester Risk Assessment Mtg, Feb 27-29,96	2	27	96	Agenda
1223	94	Meeting Notes	Summary Feb 13,96 Teleconference	2	21	96	Summary
1190	94	Meeting Notes	Perimeter Monitoring Conference Call	2	15	96	Agenda
1222	94	Meeting Notes	Agenda Feb 15,96 Teleconference	2	15	96	Agenda
1565	94	Meeting Notes	Chem Demil 2/13/96 Conf call summary	2	13	96	Notes
1089	94	Meeting Notes	Umatilla status Teleconference	2	8	96	Agenda
2318	94	Meeting Notes	12/12/95 CAD Conference Call Summary	1	24	96	Memo
1088	94	Meeting Notes	Army Quarterly Meeting	12	13	95	Agenda
1272	94	Meeting Notes	EQC Meeting at Headquarters	12	13	95	Agenda
1221	94	Meeting Notes	Summary Dec 12,95 Teleconference	12	12	95	Summary
1220	94	Meeting Notes	Notes Nov 7,95 Pentagon Mtg	11	21	95	Summary
1219	94	Meeting Notes	Summary Aug 15-16,95 Quarterly Mtg Army/DEQ	11	15	95	Summary
1218	94	Meeting Notes	Summary Oct 25,95 Teleconference	11	13	95	Letter
1273	94	Meeting Notes	Teleconferences, Risk Assess.	11	8	95	Agendas

1407	94	Meeting Notes	Minutes from CTUIR meeting Nov.1,1995	11	1	95	Minutes
1274	94	Meeting Notes	Meeting Notes	10	25	95	Memo
2281	94	Meeting Notes	Briefing Book	10	25	95	Binder
1275	94	Meeting Notes	Witness Testimony Open Statmnt	10	12	95	Statmnt
1181	94	Meeting Notes	Agenda - DEQ/Army Quarterly Mtg 8/15-16/95	8	15	95	Agenda
1690	94	Meeting Notes	Meeting with DOH-5/26/95	5	26	95	Notes
1276	94	Meeting Notes	DEQ/Army Quarterly Meeting Minutes 5/24/95	5	24	95	Minutes
1277	94	Meeting Notes	Conference Call, ANCDF Permit App	4	21	95	Summary
1408	94	Meeting Notes	Comments on Draft Meeting Notes of 2/28/95	4	11	95	Notes
1087	94	Meeting Notes	Meeting Minutes - CSEPP/DEQ	3	28	95	Minutes
1932	94	Meeting Notes	Minutes-DEQ/Emerg.Management Meeting 3/28/95	3	28	95	Minutes
1180	94	Meeting Notes	Quarterly Mtg with ARmy/EPA/DEQ 3/21-22/95	3	22	95	Minutes
1278	94	Meeting Notes	Meteorological Data	3	21	95	Hndout
	94	Meeting Notes	Meeting Notice	1	23	95	Notice
	94	Meeting Notes	Meeting Notice	12	14	94	Notice
1279	94	Meeting Notes	Open House-Meeting Notice	11	16	94	Notice
1280	94	Meeting Notes	UMCDF Air Permit Application	11	2	94	Notes
1152	94	Meeting Notes	Quarterly Mtg Notes/Aug2-3,1994/Final	10	20	94	Notes
1151	94	Meeting Notes	EPA-US ARMY Meeting in DC	10	18	94	List/Nts
	94	Meeting Notes	CDCAC Meeting Notice	10	12	94	Notice
1150	94	Meeting Notes	Quarterly Mtg Notes/Aug2-3,1994/Draft	9	23	94	Notes
1149	94	Meeting Notes	ANAD Chem Demil Meeting	8	17	94	List/Nts
1148	94	Meeting Notes	Risk Assessment Roster	8	16	94	List
1147	94	Meeting Notes	Review Comments on ANAD Chem Demil Draft R.A.	8	5	94	Notes
1146	94	Meeting Notes	USACMDA Chem Demil Mtg Notice	7	26	94	Notice
1144	94	Meeting Notes	Chem Demil Mtg Summary Draft - 4/12-13/94	7	18	94	Notes
1145	94	Meeting Notes	Risk Assessmnt Mtg Summary Draft - 6/21-23/94	7	18	94	Notes
	94	Meeting Notes	CDCAC Meeting Notice	6	29	94	Notice
1143	94	Meeting Notes	CDCAC Meeting Notice	6	1	94	Notice
1142	94	Meeting Notes	CDCAC Meeting Notice	5	17	94	Notice
	94	Meeting Notes	Hearing on Alternative Technologies	5	3	94	Memo
1141	94	Meeting Notes	UMDA Denver Demil Meeting	4	12	94	Handouts
2115	94	Meeting Notes	Public Information Materials for CSDP Requeste	9	30	93	Letter
1140	94	Meeting Notes	Alternative Technologies Forum Draft Agenda	6	30	93	Agenda
1139	94	Meeting Notes	Final Meeting Notes from 12/9-11/92 Meeting	4	13	93	Minutes
1138	94	Meeting Notes	Draft Meeting Notes from 12/9-11/92 Meeting	1	15	93	Minutes
1137	94	Meeting Notes	Chem Demil Conference Call 10/21/92	10	21	92	Attachments
1136	94	Meeting Notes	USACMDA & Nerve Agent Wrkgrp list	9	29	92	List
1135	94	Meeting Notes	Agenda Chem Demil Conference Call- 10/21/92	9	24	92	Agenda
1134	94	Meeting Notes	Tech Orientation Wrkshp Attendance Roster	9	5	90	List
1133	94	Meeting Notes	Notes from Cathy Massimino 6/8/90	6	8	90	Notes
1132	94	Meeting Notes	Agenda-Intergovern.consultation & coordination	4	10	90	Agenda
1131	94	Meeting Notes	Umatilla Sign in Sheet 10/18-19/89	10	18	89	List
1130	94	Meeting Notes	ICCB Meeting - 8/17/87	8	18	89	Notes
1129	94	Meeting Notes	IAG Meeting 6/6/89 Portland - Roster	6	6	89	List
1127	94	Meeting Notes	Agenda - for IAG meeting 5/18/89	5	18	89	Notes

1128	94	Meeting Notes	DEQ/EPA/Army IAG Meeting Roster - 5/18/89	5	18	89	Agenda
1126	94	Meeting Notes	RCRA Corrective Action Order Wkshp - 2/22-23/8	2	22	89	Agenda
1125	94	Meeting Notes	Proposed schedule site specific NEPA Documents	1	3	89	Schedule
1123	94	Meeting Notes	Tooele Incinerator Project meeting - 11/28/88	11	28	88	Notes
1122	94	Meeting Notes	Results of Steering Committee Meeting-10/26/88	11	16	88	Memo
1124	94	Meeting Notes	Intergov Consultation & Coordination Board	11	15	88	List
1120	94	Meeting Notes	Emerg Response Steering Committee Mtg Attendee	11	3	88	List
1121	94	Meeting Notes	Review Team Members Roster	11	3	88	List
1117	94	Meeting Notes	Chem Demil Meeting Minutes 2/88	5	5	88	Minutes
1119	94	Meeting Notes	Minutes from meeting in Pasadena 11/12-13/87	1	21	88	Minutes
1116	94	Meeting Notes	On-Site Inspectors for monitoring compliance	12	15	87	Memo
1118	94	Meeting Notes	Notes from UAD Conference Call - 12/87	12	0	87	Notes
1115	94	Meeting Notes	24hr On-Site Inspection/Computer Link-Up	11	18	87	Letter
1114	94	Meeting Notes	Highlites from 11/12-13/87 RCRA/Army Mtg	11	0	87	Summary
1113	94	Meeting Notes	Meeting w/Army 11/12-13-97	10	16	87	Memo
1111	94	Meeting Notes	Interim report based on plant visit/RCRA Revie	9	25	87	Report
1110	94	Meeting Notes	Notice re: Mtg.on Long-Term Low-Dose Exposure	9	3	87	FedReg
1112	94	Meeting Notes	Briefing outlines submitted to Army 9/1/87	9	2	87	Letter
1109	94	Meeting Notes	UAD RCRA facility investigation-draft workplan	5	19	87	Letter
1108	94	Meeting Notes	Minutes from 3/87 meetings with Army	5	6	87	Minutes
1107	94	Meeting Notes	Attendees at Mtg W/EPA SWMU at Umatilla 5/5/87	5	5	87	List
1106	94	Meeting Notes	Draft Minutes of 3/87 meetings in Aberdeen	4	14	87	Memo
1104	94	Meeting Notes	Meeting notes from 5/25/87 - Chem Demil wrkgrp	3	25	87	Notes
1105	94	Meeting Notes	Attendees at 3/25/97 EPA State Meeting	3	25	87	List
1103	94	Meeting Notes	Conference call agenda for 2/5/87	2	5	87	Memo
1102	94	Meeting Notes	UAD Conference Call Notes	0	0	87	Notes
1101	94	Meeting Notes	Agenda,Chem Demil RCRA App. Mtg 9/25-26/86	9	9	86	Memo
1100	94	Meeting Notes	Attendees for 8/29/86 Chem Demil Mtg	8	29	86	List
1099	94	Meeting Notes	Agenda,Chem Demil RCRA App Mtg 8/29/86	8	18	86	Memo
1098	94	Meeting Notes	Notes from 5/13-14/86 DOA-EPA Mtg	7	17	86	Notes
1097	94	Meeting Notes	Schedule of conference calls - Chem Demil wkgr	7	11	86	Memo
1096	94	Meeting Notes	Installation Points of Contact for Chem Demil	5	29	86	Memo
1095	94	Meeting Notes	Report on 5/13-14/86 EPA/DA Meeting	5	13	86	Report
1094	94	Meeting Notes	National Meeting EPA/DOD Task Force 5/13-14/86	5	6	86	Memo
1091	94	Meeting Notes	Directions to Aberdeen Proving Grounds	0	0	0	Map
1092	94	Meeting Notes	Meeting Attendees Fed & State	0	0	0	List
1093	94	Meeting Notes	Notes	0	0	0	Notes
1499	95	Guidance Documents	Guidance for Total Organics	3	1	96	Report
1227	95	Guidance Documents	EPA Region 10-Suppl.Risk Assess.Superfund	2	0	96	Document
1230	95	Guidance Documents	Guidance for Total Organics - Final Draft Rpt	1	26	96	Report
2272	95	Guidance Documents	User's Guide for the Industrial Source Complex	7	19	95	Binder
	95	Guidance Documents	Pre-Proposed Munitions Rule	6	21	95	Lette
1557	95	Guidance Documents	Wkshp on Assessing Risks from...	3	22	95	Workbook
	95	Guidance Documents	Civil Admin. Enforcmnt Action	3	13	95	Action
1429	95	Guidance Documents	Draft Protocol-Anniston	2	6	95	Report
1292	95	Guidance Documents	Tooele Safety Issues	1	17	95	Report

1291	95	Guidance Documents	CMA/EPA BIF Wrkshop	1	0	95	Trnscrpt
	95	Guidance Documents	4068.Mgmt Standards for HW	11	14	94	Rule
1290	95	Guidance Documents	Meteorological Monitoring Plan	7	29	94	Report
	95	Guidance Documents	Alternative Technologies /Army	4	1	94	Flyer
1653	95	Guidance Documents	Addendum to Methodology for Assessing Health R	11	10	93	Report
	95	Guidance Documents	Federal Register/Proposed Rule	10	25	93	Fed Reg
	95	Guidance Documents	Federal Register/Proposed Rule	10	20	93	Fed Reg
1289	95	Guidance Documents	Public Opinion Survey	10	1	93	Report
	95	Guidance Documents	Highst Best Trtmnt Required	9	24	93	Rules
	95	Guidance Documents	Proposed Nerve Agent Inc Proc	10	6	92	Report
	95	Guidance Documents	Fed Fac Compliance Act	0	0	92	Regs.
	95	Guidance Documents	Chemical Weapons Disposal	11	10	91	Report
	95	Guidance Documents	HW Incinerator Proposed Contrl	3	1	90	Report
	95	Guidance Documents	HW Incinerator Proposed Contrl	3	1	90	Report
1289	95	Guidance Documents	Wkshp Review RCRA Trial Burn	5	9	89	Report
1287	95	Guidance Documents	PIC Control for HW Incinerator	4	1	89	Report
1286	95	Guidance Documents	HW Incineration Measurement	3	28	89	Report
1285	95	Guidance Documents	Trial Burn Observation Guide	3	1	89	Report
1284	95	Guidance Documents	Reviewing Trial Burn Reports	2	10	89	Report
1282	95	Guidance Documents	Permit Conditions & Trial Burn	1	1	89	Report
1283	95	Guidance Documents	HW Incinsrator Inspection Man.	1	1	89	Report
1295	95	Guidance Documents	CO Control HW Incinerator	9	9	88	Report
1419	95	Guidance Documents	Emer Resp Prog Guidance/Final	11	30	87	Report
	95	Guidance Documents	M P F Heating Curve	10	1	87	Misc
1295	95	Guidance Documents	HW Incinerator Permits	7	1	83	Report
1281	95	Guidance Documents	Metals Partitioning	0	0	0	Report
1293	95	Guidance Documents	Safely Destroying Chem Weap	0	0	0	Brochure
1294	95	Guidance Documents	Permit Conditions & Trial Burn	0	0	0	Report
1307	96	Regulations	Permit Denial Appeals, DA sig.	9	12	95	EMail
1306	96	Regulations	Pre-Proposed Munitions Rule	5	21	95	Letter
1305	96	Regulations	Draft Military Munitions	5	25	95	Letter
1304	96	Regulations	Redraft of Mltry Mntns Rule	5	18	95	Letter
1303	96	Regulations	Utah Administrative Code	1	5	95	Report
1302	96	Regulations	Highest & Best Treatment	11	26	94	OAR
1301	96	Regulations	Chemical Destruction Program	0	0	93	Regs
842	96	Regulations	Fed Reg. Dspsl Chem Agents	3	3	92	Notice
1300	96	Regulations	House Bill No. 465	2	26	92	Bill
843	96	Regulations	Reopening of Public Comment Prd	2	26	92	Fed. Reg.
1299	96	Regulations	Federal Facility Compliance	1	3	92	Act
1297	96	Regulations	Amendmnt to Owners & Operators	4	24	90	Letter
1298	96	Regulations	Amedment to Owners & Operators	4	13	90	Letter
871	96	Regulations	Long- Term Exposure to GA, GB	12	22	87	Fed Reg
1839	96	Regulations	Federal Register re: RCRA BDAT	11	7	86	Federal Reg
877	96	Regulations	Intent to Prepare EIS	4	9	85	Fed Reg
1182	96	Regulations	Applicability of the NEPA to RCRA	5	22	79	Memo
	98	Various Vendor Info	Note: Indvdl Documents Do Not Have Admin #				

2094	99	Misc - Demil	Petitioners 1st set of Doc Prod Rqst to UDEQ	10	29	96	Letter
1939	99	Misc - Demil	Greenlaw Suit in Utah re: TOCDF	8	8	96	Findings
1938	99	Misc - Demil	Greenlaw Notice of Intent to Sue TOCDF	6	28	96	Notice
1627	99	Misc - Demil	Affidiavit of Steve Jones	6	3	96	Affidavit
1556	99	Misc - Demil	Greenlaw Suit in Utah	5	28	96	Report
1816	99	Misc - Demil	Greenlaw Utah Complaint	5	1	96	Complaint
2092	99	Misc - Demil	State & Tribal Forum on Risk-Based Decsn	10	16	95	Anncmnt
1183	99	Misc - Demil	Environment Arkansas!BBS	9	27	95	FileListing
1184	99	Misc - Demil	Survey of Opinions and Behaviors	9	5	95	Letter
1364	99	Misc - Demil	Hermiston Office Activities Report #2	8	8	95	Memo
	99	Misc - Demil	Umatilla Project Activites	8	8	95	Memo
1363	99	Misc - Demil	Citizens Advisory Meeting	8	2	95	Agenda
1361	99	Misc - Demil	Military ProcuremntSubcommittee Hearing 7/13/9	7	13	95	Report
1362	99	Misc - Demil	John Nunn, CDCAC	7	13	95	Testmny
1365	99	Misc - Demil	Pblc Ntce Johnston Atoll Chem.	6	28	95	Notice
1360	99	Misc - Demil	Proposed Rule Stage - #4068	11	14	94	FedReg
1366	99	Misc - Demil	Disp of Chem Agents & Munition	5	26	94	Present
1359	99	Misc - Demil	Hearing on Alt. Tech.	5	3	94	Memo
1358	99	Misc - Demil	Proposed Rule Stage - #3746	10	25	93	FedReg
1357	99	Misc - Demil	PartII Risk Mngmt for Accidental Release	10	20	93	FedReg
1356	99	Misc - Demil	DOD Authorization Act	2	2	93	Act
	99	Misc - Demil	CSDP Schedule	12	10	92	Schedule
2131	99	Misc - Demil	Proposed Umatilla Nerve Agent Incin Process	10	6	92	Process
19	99	Misc - Demil	Facility Management Plan	3	0	92	Plan
1355	99	Misc - Demil	House Bill No. 465	2	26	92	Bill
2130	99	Misc - Demil	Internatl Citizens Accord on Chem Weapns Disps	11	10	91	Mtg Notes
1354	99	Misc - Demil	Prgrss Updte Interm Remdtn Actn	7	23	91	Memo
1353	99	Misc - Demil	A/E Support in Doc. Prepartn	1	2	91	Memo
1344	99	Misc - Demil	GAO Report	10	3	90	Letter
1343	99	Misc - Demil	Automation Workshops	9	21	90	Letter
1342	99	Misc - Demil	DEQ Mts Army Env Branch Part B	8	24	90	Memo
1341	99	Misc - Demil	Visit to JACADs, Shkdwn Opertn	8	14	90	Report
1340	99	Misc - Demil	RGIs Changed, One RSM	6	29	90	Letter
	99	Misc - Demil	US & Soviet Agrmnt Chem Weapons	6	6	90	Letter
1339	99	Misc - Demil	DOD Draft Tstmny Stckple	4	3	90	Memo
1338	99	Misc - Demil	Programs schedules Revision 2	3	0	90	Scheduls
2322	99	Misc-Demil	Hazardous Waste Facility Permit Fee	11	2	89	Memo
1337	99	Misc - Demil	Proposed Decision to Deny Prmt	8	30	89	Letter
1336	99	Misc - Demil	Popping Furnace Admin Record	8	29	89	Chart
23	99	Misc - Demil	Popping Furnace Administrative Record	8	29	89	Chart
	99	Misc - Demil	Issuance of RCRA Permit Furnce	7	19	89	Letter
1335	99	Misc - Demil	CSDP Dsgn & Opertn	1	6	89	Letter
1334	99	Misc - Demil	Replcment Dir. RCRA Revisions	1	0	89	Rplcmnt
1333	99	Misc - Demil	Installation Restratn Program	8	2	88	Report
1332	99	Misc - Demil	UMDA Deactivation Furnace	3	14	88	Letter
1331	99	Misc - Demil	Joint Legsltve Committee	2	10	88	Tstmony

1330	99	Misc - Demil	Minimum Operating Temperatures	12	14	87	Memo
1329	99	Misc - Demil	Automatic waste Feed Monitring	11	10	87	Memo
1328	99	Misc - Demil	Issues of Concern to Reg. 4	10	28	87	Memo
1327	99	Misc - Demil	Summary of Responses, NOD CSD	10	13	87	Report
1326	99	Misc - Demil	Army Reports Nrve Agnt Toole	9	22	87	Memo
1325	99	Misc - Demil	App Review Comments HW Prmt	9	9	87	Notes
1324	99	Misc - Demil	Conference Call, ERT Assistce	4	23	87	Memo
1323	99	Misc - Demil	RCRA Faclty Invest. Constrnts	4	1	87	Letter
1322	99	Misc - Demil	Evaluation of Cntrl Lvls	3	20	87	Memo
1321	99	Misc - Demil	Review of Material on TAGA	1	6	87	Letter
1318	99	Misc - Demil	State of Indiana Part B Review	12	19	86	Report
1319	99	Misc - Demil	Lexington Bluegrass Army Depot	12	19	86	Report
1317	99	Misc - Demil	Request of Info. on Proposed Incin.	11	20	86	Letter
1313	99	Misc - Demil	Work Assign., Generic CAD Review, Fnl Delivrbl	11	6	86	Letter
1316	99	Misc - Demil	Nerve Agnt Demil Project	10	28	86	Memo
1315	99	Misc - Demil	Nrve Agnt Dispsl at Umatilla	9	24	86	Tstmny
1312	99	Misc - Demil	CSDS National Alternative	9	18	86	Chklst
1314	99	Misc - Demil	Information on Corrective Actn	9	4	86	Memo
1345	99	Misc - Demil	Inactive Burning Pad	8	5	86	Invntry
1346	99	Misc - Demil	Agent H Burial Pits	8	5	86	Invntry
1347	99	Misc - Demil	Missile Fuel Burning Pits	8	5	86	Invntry
1348	99	Misc - Demil	Decontaminated GB drum burial site	8	5	86	Invntry
1349	99	Misc - Demil	Demil & Decontmntn of VX Bomb	8	5	86	Invntry
1350	99	Misc - Demil	Laundry Settlng Tanks, HW Activities	8	5	86	Invntry
1351	99	Misc - Demil	Ammunition Surveillance Test Area	8	5	86	Invntry
1352	99	Misc - Demil	Opn Burning Detonation OB/OD Area	8	5	86	Invntry
1320	99	Misc - Demil	Facility Management Plan	7	31	86	Plan
1311	99	Misc - Demil	Prmt Issues Rltd to US Army	5	8	86	Memo
1308	99	Misc - Demil	Fig. Metal Parts Furnace	0	0	0	Figures
1309	99	Misc - Demil	Indicator Tubes for Detection of TNT	0	0	0	Report
1310	99	Misc - Demil	Regulated Activities UMAD	0	0	0	Notes
2093	99	Misc - Demil	BRAC Realignment and Closure Env Restoration	0	0	0	Brochure
2283	255	Alternative Tech.	Videotape footage of various alternatives	8	13	96	Letter
2284	255	Alternative Tech.	Demilitarization Alternative Technology	7	2	96	Letter
2282	255	Alternative Tech.	Agent 313 Technology by Commodore	6	21	96	Letter
2301	255	Alt Technology	M4 CEP Tour	0	0	0	Video
2302	255	Alt Technology	EcoLogic Toronto Update	0	0	0	Video
2303	255	Alt Technology	EcoLogic Chemical Demilitarization Update	0	0	0	Video
2300	270	News Articles	Still Nervous; Northwest Reports	7	14	96	Video
2285	275	Public Outreach	UAD Incin Facility Impact on Airshed Pollutant	1	3	95	Agenda
2304	287	RA & Met Station	Phase 1 Quantitative RA, for Umatilla Chem.	4	0	96	Report
2298	287	RA & Met Station	One year of On-Site Met Data	9	12	95	Letter
2293	287	RA & Met Station	Draft ISCSTDFT Model	6	5	95	Drctns
2292	287	RA & Met Station	Meteorological Data Comparison	5	3	95	Letter
2291	287	RA & Met Station	Comparison of Met Data from UMDA & US Generatn	4	10	95	Report
2296	287	RA & Met Station	Revised Met Monitoring Plan for Umatilla Depot	2	23	95	Report

2287	287	RA & Met Station	Met Stations System Audit	2	1	95	Letter
2289	287	RA & Met Station	UADA Audit	12	20	94	Memo
2286	287	RA & Met Station	Review of Met Monitoring Plan	11	15	94	Letter
2288	287	RA & Met Station	Met Monitoring Plan	11	7	94	Memo
2295	287	RA & Met Station	Response to OR DEQ Review Comments	11	7	94	Report
2297	287	RA & Met Station	Met Monitoring Plan for the Umatilla Depot	7	15	94	Report
2290	287	RA & Met Station	Hermiston Air Quality & Met Monitoring Plan	1	0	94	Report
2294	287	RA & Met Station	Response to OR DEQ System Audit For UMDA Met	0	0	0	Report
2299	294	Meeting Notes	Quarterly Meeting Notes for 8/2-3/94	10	20	94	Letter

Index of Documents Provided to the EQC
Appendix 2

Item #	Heading #	Heading	Document	MM	DD	YY	Type
2017	3	Environ. Permits	Draft Hazardous Waste Permit	4	5	96	Permit
2117	4	Part B Support	Does Tooele Data Demonstrate Compliance?	10	8	96	Memo
1669	4	Part B Support	Utah Federal Court Decision	8	13	96	Legal Doc
1628	4	Part B Support	BDAT Minimum Technology Standard Applicable RCR	3	15	96	Memo
2219	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	16	96	Letter
2195	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2215	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2217	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2223	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2222	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2225	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2224	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2228	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2230	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2229	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2227	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2226	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Letter
2246	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Report
2267	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Rpt/Lttr
2266	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Rpt/Lttr
2212	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	15	96	Rpt/Lttr
2231	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2194	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2218	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2197	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2220	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2221	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2234	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2241	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	14	96	Letter
2260	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2216	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2193	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2237	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2238	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	13	96	Letter
2192	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	12	96	Letter
2243	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	12	96	Letter
2244	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	12	96	Letter
2190	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	9	96	Letter
2191	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	9	96	Letter
2188	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	4	96	Letter
2185	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	31	96	Letter
2187	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	30	96	Letter
2186	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	30	96	Letter
2184	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	28	96	Letter

Index of Documents Provided to the EQC
Appendix 2

Item #	Heading #	Heading	Document	MM	DD	YY	Type
2182	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	22	96	Letter
2183	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	21	96	Letter
2180	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	10	17	96	Letter
2177	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	9	24	96	Letter
2178	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	9	24	96	Letter
2181	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	9	23	96	Letter
2189	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	9	1	96	Letter
2171	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	23	96	Letter
2167	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	96	Letter
2168	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	96	Letter
2169	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	96	Letter
2170	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	96	Letter
2172	7	Official Comments	Public Comments	8	22	96	Testimony
2165	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	13	96	Letter
2179	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	11	96	Letter
2175	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	1	96	Letter
2174	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	7	10	96	Letter
2214	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	14	96	Letter
1786	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	13	96	Letter
1787	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	13	96	Letter
2164	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	13	96	Letter
2176	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	12	96	Letter
1791	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	12	96	Letter
2256	7	Official Comments	Public Comments From Hermiston Public Hearing	6	10	96	Transcript
1785	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2173	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2211	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2210	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2209	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2213	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	10	96	Letter
2205	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	9	96	Letter
2255	7	Official Comments	Public Comments From Pendleton Public Hearing	6	7	96	Transcript
2204	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	6	96	Letter
2254	7	Official Comments	Public Comments from Kennewick Public Hearing	6	5	96	Transcript
2206	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	6	2	96	Letter
1784	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	30	96	Letter
1790	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	30	96	Letter
2200	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	29	96	Letter
2201	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	29	96	Letter
2202	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	29	96	Letter
2232	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	29	96	Statemnt
2253	7	Official Comments	Public Comments Received From PDX Pblc Hearing	5	29	96	Testimony
2203	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	28	96	Letter
1788	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	5	15	96	Letter

Index of Documents Provided to the EQC
Appendix 2

Item #	Heading #	Heading	Document	MM	DD	YY	Type
1783	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	29	96	Letter
1789	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	26	96	Letter
2198	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	26	96	Letter
1782	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	25	96	Letter
1781	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	19	96	Letter
1780	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	15	96	Letter
1779	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	12	96	Letter
1778	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	11	96	Letter
1777	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	9	96	Letter
1776	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	7	96	Letter
1773	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	4	5	96	Letter
1771	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	3	29	96	Letter
1770	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	3	20	96	Letter
2196	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	27	95	Letter
2208	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	11	22	95	Letter
2199	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	8	22	95	Letter
2166	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Report
2245	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2242	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2240	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2239	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2233	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Letter
2236	7	Official Comments	Public Comments	0	0	0	Letter
2235	7	Official Comments	Public Comments	0	0	0	Letter
2232	7	Official Comments	Public Comments	0	0	0	Letter
2207	7	Official Comments	Public Comments Received 4/5/96 to 11/15/96	0	0	0	Drawings
2264	8	Public Notices	UAD Public Comments By CTUIR	11	15	96	Binder
2265	8	Public Notices	UAD Public Comments By Karyn Jones	11	15	96	Binder
1729	8	Public Notices	"Your Opinion counts!"-for 8/22-23/96 EQC Mtg	8	20	96	NewsAdv
1683	8	Public Notices	"Your Opinion Counts!"-Info Meeting Notice	8	17	96	NewsArt
1675	8	Public Notices	"Your Opinion Counts!"-Info Meeting Notice	8	3	96	NewsArt
2263	8	Public Notices	UAD Public Comments 6/17/96-11/15/96	6	17	96	Binder
1565	8	Public Notices	Chance to Comment on Extension,Comment Period	6	17	96	Notice
1566	8	Public Notices	Chance to Comment on Extension, Comment Period	6	17	96	Notice
2158	8	Public Notices	Umatilla Public Hearing, Tape 1, Hermiston	6	10	96	Cassette
2159	8	Public Notices	Umatilla Public Hearing, Tape 2, Hermiston	6	10	96	Cassette
2160	8	Public Notices	Umatilla Demilitarization Public Hearing Tape	5	29	96	Cassette
2161	8	Public Notices	Umatilla Demilitarization Public Hearing Tape	5	29	96	Cassette
2162	8	Public Notices	Umatilla Army Depot Public Hearing, Pndltn, Kn	5	13	96	Cassette
2262	8	Public Notices	UAD Public Comments 5/13/96-6/17/96	5	13	96	Binder
1447	8	Public Notices	Chance to Comments	4	5	96	NewsArt
1562	8	Public Notices	Chance to Comment on Findings and Risk Asses.	4	5	96	Notice
1563	8	Public Notices	Chance to Comment on Proposed Haz Waste Permit	4	5	96	Notice
1564	8	Public Notices	Chance to Comment on Proposed Air Quality Perm	4	5	96	Notice

Index of Documents Provided to the EQC
Appendix 2

Item #	Heading #	Heading	Document	MM	DD	YY	Type
1841	8	Public Notices	Fact Sheet for Draft HW Permit	4	5	96	Fact Sheet
1951	9	Governor Corres.	Letter of Concern to EPA re: RCRA issues	1	22	96	Letter
1378	9	Governor Corres.	Response to 2/22&3/7,96 Ltrs from PDeFazio	3	19	96	Letter
1953	9	Governor Corres.	Letter to DeFazio from Governor	4	3	96	Letter
1952	9	Governor Corres.	Letter to Gov from DeFazio	3	25	96	Letter
1531	9	Governor Corres.	Rpt on Status of Umatilla Permitting Decisions	5	31	96	Memo
1967	9	Governor Corres.	GDecker response to Gov letter 10/7/96	11	7	96	Letter
1968	9	Governor Corres.	Letter to WPerry re:EQC	10	14	96	Letter
1966	9	Governor Corres.	Response to D173Letter from JChien	11	8	96	Letter
1077	10	Correspondence	Letter from ROrton to DeFazio	5	6	96	Letter
1671	10	Correspondence	DeFazio's Reponse to Army comments 7/15/96	7	15	96	Letter
1707	10	Correspondence	White House Correspondence	7	17	96	Letter
1708	10	Correspondence	PMCD memo re: EQC Meeting 8/22/96	8	27	96	Memo
1847	10	Correspondence	Response letter to Wendell Ford	9	14	96	Letter
2261	10	Correspondence	Public Comment Received Ater 11/15/96	11	18	96	Letter
1854	15	CTUIR	Unable to attend EQC Briefing on 4/12/96	4	12	96	Letter
1567	15	CTUIR	CTUIR/SSRP Follow-up on DEQ Briefing to EQC	4	26	96	Letter
1629	15	CTUIR	Response to 4/26/96 letter	5	26	96	Letter
1611	32	Other Reports	M55 Rocket Separation Study	11	22	85	Report
1548	32	Other Reports	US Chem Weapons Destruction Program	9	0	94	Report
1426	55	Alternative Tech	Recommendations for Disposal	3	7	94	Report
1692	55	Alternative Tech	CTUIR Material given to EQC	4	12	96	Comments
1988	55	Alternative Tech	Promise of Alternative Technologies	10	30	96	Report
1810	80	CSEPP	Governor's CSEPP concerns for FEMA and Army	7	1	96	Letter
1697	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	15	96	Letter
1698	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
1699	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
1700	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
1701	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
1702	80	CSEPP	UMCDF OEM Presentation to EQC-invitation	8	16	96	Letter
2083	80	CSEPP	Comments to be entertained by EQC	11	13	96	Letter
2075	80	CSEPP	November 5-6, 1996 Agenda Proposal	10	14	96	Memo
2077	81	CAIRA Plan & Update	Change 1 to UMCD CAIRA Plan, dated 4/96	7	31	96	Memo
2269	87	Combustion Risk	Draft Pre-Trial RA Proposed at Umatilla Chem.	4	0	96	Report
2268	87	Combustion Risk	Draft Pre-Trial RA Proposed at Umatilla Chem.	4	0	96	Report
2257	92	EQC Documents	Tape 1, Sides 1 & 4,EQC in Pendleton	11	22	96	Cassette
2258	92	EQC Documents	Tape 2, Side 6,2, and 5, EQC in Pendleton	11	22	96	Cassette
2259	92	EQC Documents	Tape 3,Side 3, EQC in Pendleton	11	22	96	Cassette
2044	92	EQC Documents	DEQ Directors Recommendations to EQC on BAT	11	22	96	Fax
2045	92	EQC Documents	Proposed Prmt Conditions from Commission Mtgs	11	22	96	Attch B
2046	92	EQC Documents	Dept. Recommended Permit Cndtns from Commsn Mt	11	22	96	Cndtn
2047	92	EQC Documents	Qstns about proposed UMCDF	11	21	96	Memo
2050	92	EQC Documents	Transmittal of Public Comments	11	18	96	Memo
2048	92	EQC Documents	Concerns regarding Emergency Preparedness Issu	11	15	96	Letter

Item #	Heading #	Heading	Document	MM	DD	YY	Type
2146	92	EQC Documents	Tape 1, Side 1 and Side 3	11	15	96	Cassette
2147	92	EQC Documents	Tape 2, Side 2 and Side 4	11	15	96	Cassette
2148	92	EQC Documents	Tape 3,	11	15	96	Cassette
2049	92	EQC Documents	Response to Umatilla Documents for 11/15/96	11	14	96	Memo
2051	92	EQC Documents	EQC Meeting 11/14-15/96 in Portland	11	14	96	Agenda
2149	92	EQC Documents	Tape 3	11	14	96	Cassette
2150	92	EQC Documents	Tape 2, Side 2 and Side 4	11	14	96	Cassette
2151	92	EQC Documents	Tape 1, Side 1 and Side 3	11	14	96	Cassette
2055	92	EQC Documents	Transmittal of Umatilla Doc in Prep for 11/15/	11	6	96	Memo
2056	92	EQC Documents	Best Available Technology Finding	11	5	96	Memo
2057	92	EQC Documents	Notice to Persons Interested in Proposed Incin	11	0	96	Notice
2072	92	EQC Documents	Copy of OSU Dioxin Paper	10	31	96	Memo
2058	92	EQC Documents	Rpt to Questions on Dioxin Formation at UMCDF	10	29	96	Report
2062	92	EQC Documents	EQC Work Session 9-27-96	10	27	96	Minutes
2053	92	EQC Documents	EQC Meeting 11/22/96 in Pendleton	10	24	96	Agenda
2052	92	EQC Documents	EQC Meeting 11/22/96 in Pendleton	10	23	96	Agenda
2054	92	EQC Documents	EQC Meeting 11/14-15/96 in Portland	10	23	96	Agenda
2059	92	EQC Documents	EQC Minutes 10/11/96 Regular Meeting	10	11	96	Minutes
2060	92	EQC Documents	Handout for 10-11-96 EQC Meeting	10	11	96	Hndout
2157	92	EQC Documents	EQC Meeting, Umatilla Portion	10	11	96	Cassette
1825	92	EQC Documents	EQC Meeting Agenda for 10/10-11/1996	10	10	96	Agenda
2061	92	EQC Documents	EQC Work Session 10-10-96	10	10	96	Minutes
2137	92	EQC Documents	Side 6 and Side 8	9	27	96	Cassette
2138	92	EQC Documents	Side 5 and Side 7	9	27	96	Cassette
1822	92	EQC Documents	EQC Meeting Agenda for 9/27/96	9	27	96	Agenda
1823	92	EQC Documents	Discussion of proposed permit condition-UMCDF	9	27	96	Report
1824	92	EQC Documents	Discussion of ORS466.055 Findings	9	27	96	Report
2063	92	EQC Documents	Discussion of ORS 466.055b Findings	9	27	96	Memo
2071	92	EQC Documents	Executive Summary from the NRC report on AltTe	9	25	96	Memo
1821	92	EQC Documents	Response to HLorenzen's 9/5/96 letter	9	17	96	Letter
2064	92	EQC Documents	EQC 9-27-96 Meeting in Portland	9	13	96	Agenda
2070	92	EQC Documents	November EQC Meeting	9	13	96	Memo
1820	92	EQC Documents	EQC Worksession 9/27/96 list of goals	9	12	96	Memo
1775	92	EQC Documents	Leak incindent at Tooele, Utah	9	10	96	Report
1774	92	EQC Documents	Public survey and public info activities	8	31	96	Memo
1769	92	EQC Documents	Agenda Item H, EQC Meeting 8/23/96 BAT	8	28	96	Letter
1768	92	EQC Documents	UMCDF OEM Presentation to EQC	8	27	96	Letter
1819	92	EQC Documents	EQC Meeting notes from 8/22/96	8	27	96	Notes
2139	92	EQC Documents	Tape 1, EQC Meeting	8	23	96	Cassette
2140	92	EQC Documents	Tape 2, EQC Meeting	8	23	96	Cassette
2141	92	EQC Documents	Tape 3, EQC Meeting	8	23	96	Cassette
1706	92	EQC Documents	EQC Meeting Agenda for 8/22-23/96	8	22	96	Notice
1930	92	EQC Documents	Written Testimony from KJones 8/22/96	8	22	96	Reports
1931	92	EQC Documents	Letter from Rep.Chuck Norris	8	22	96	Letter

Index of Documents Provided to the EQC
Appendix 2

Item #	Heading #	Heading	Document	MM	DD	YY	Type
2144	92	EQC Documents	Tape 1, EQC Meeting, Afternoon Session	8	22	96	Cassette
2145	92	EQC Documents	Tape 2, EQC Meeting, Afternoon Session	8	22	96	Cassette
2142	92	EQC Documents	Tape 1, EQC Meeting, Evening Session	8	22	96	Cassette
2143	92	EQC Documents	Tape 2, EQC Meeting, Evening Session	8	22	96	Cassette
1929	92	EQC Documents	DWysocki unable to attend August EQC meeting	8	13	96	Letter
1772	92	EQC Documents	Request for attendance to 8/22/96 EQC Mtg	8	8	96	Letter
1928	92	EQC Documents	UAD items for 8/22-23/96 EQC Meeting	8	8	96	Memo
1704	92	EQC Documents	Transmittal of additional info on UMCDF	8	7	96	Memo
1705	92	EQC Documents	Transmittal of info for EQC Meeting 8/22-23/96	8	7	96	Fax
1817	92	EQC Documents	EQC 7/11/96 worksession R.A.response issues	7	11	96	Report
1818	92	EQC Documents	Chemical Demil Program presentation for 7/11/9	7	11	96	Report
1927	92	EQC Documents	Transmittal of "US Chem Destr.Program:Views...	7	3	96	Memo
1602	92	EQC Documents	Transmittal of Documents to EQC	7	2	96	Memo
1601	92	EQC Documents	Invitation to submit Alt.Tech videos	7	2	96	Letter
1600	92	EQC Documents	Invitation to submit Alt.Tech videos	7	2	96	Letter
1599	92	EQC Documents	Invitation to submit Alt.Tech videos	7	2	96	Letter
1815	92	EQC Documents	Invitation to submit Alt.Tech videos	7	2	96	Letter
1626	92	EQC Documents	EQC Meeting Agenda for 6/11-12/96	6	27	96	Agenda
1652	92	EQC Documents	Interagency Agreement - DEQ & OSU	6	25	96	Agreemnt
1625	92	EQC Documents	Response to James Quigley 5/30/96 letter	6	24	96	Letter
1551	92	EQC Documents	Ltr to JHaley w/MHarrison Testimony to EQC	5	31	96	Letter
1552	92	EQC Documents	Ltr to JGorrell requesting additional info	5	31	96	Letter
1553	92	EQC Documents	May 17 Umatilla Discussion list of speakers	5	17	96	Memo
1926	92	EQC Documents	Karyn Jones' Written Testimony for 5/17/96 EQC	5	17	96	Reports
2065	92	EQC Documents	Status of Emergency Response	5	17	96	Prsntation
2066	92	EQC Documents	Material Submitted by Karyn Jones	5	17	96	Report
2067	92	EQC Documents	Comments of Destruction of Chem Weapons at UAD	5	17	96	Cmmnts
1513	92	EQC Documents	EQC Worksession Agenda 5/16/96	5	16	96	Agenda
1583	92	EQC Documents	EQC Meeting Agenda for 5/16-17/96	5	16	96	Agenda
1584	92	EQC Documents	Air Quality Permit Overview for 5/16/96 EQC	5	16	96	Overheads
1925	92	EQC Documents	EQC Worksession air presentation 5/16/96	5	16	96	Overheads
2135	92	EQC Documents	EQC Work Session Potential Alt. to Incin	5	16	96	Video
2136	92	EQC Documents	EQC Work Session Potential Alt. to Incin	5	16	96	Video
2152	92	EQC Documents	EQC Work Session, Tape 1	5	16	96	Cassette
2153	92	EQC Documents	EQC Work Session, Tape 2	5	16	96	Cassette
2154	92	EQC Documents	EQC Work Session, Tape 3	5	16	96	Cassette
2155	92	EQC Documents	EQC Work Session, Tape 4	5	16	96	Cassette
2156	92	EQC Documents	EQC Work Session, Tape 5	5	16	96	Cassette
2068	92	EQC Documents	Umatilla Chemical Weapons Destruction Permits	5	7	96	Letter
1924	92	EQC Documents	Transmittal of Alternative Technologies info	5	3	96	Memo
1264	92	EQC Documents	Handout to EQC from Brett McKnight, DEQ	5	0	96	Binder
2069	92	EQC Documents	Delay Granting of the Army's Permit	4	30	96	Letter
1919	92	EQC Documents	Minutes for 4/12/96 EQC Meeting	4	22	96	Minutes
1512	92	EQC Documents	Letter to Mick Harrison	4	19	96	Letter

Item #	Heading #	Heading	Document	MM	DD	YY	Type
1582	92	EQC Documents	Response to OEC ltr dated 4/9/96 by JCharles	4	18	96	Memo
1920	92	EQC Documents	Emergency Update for 5/17/96 EQC Meeting	4	18	96	Letter
1921	92	EQC Documents	Emergency Update for 5/17/96 EQC Meeting	4	18	96	Letter
1922	92	EQC Documents	Emergency Update for 5/17/96 EQC Meeting	4	18	96	Letter
1923	92	EQC Documents	Participation in Alts to Incin. discussion	4	18	96	Letter
1502	92	EQC Documents	HW Permit Presentation - Overheads	4	12	96	Overheads
1501	92	EQC Documents	Confirmation of Attendance to May 16 mtg	4	10	96	Letter
1500	92	EQC Documents	Letter from John Charles re: EQC Decisions	4	9	96	Letter
1918	92	EQC Documents	Umatilla Chemical Weapons Incinerators	3	15	96	Memo
1581	92	EQC Documents	Minutes of the 250th Meeting	2	23	96	Minutes
1216	92	EQC Documents	Presentation to the EQC	2	9	96	Letter
1217	92	EQC Documents	Presentation to the EQC	2	6	96	Letter
1042	92	EQC Documents	Provide Comments; Video	12	26	95	Letter
1032	92	EQC Documents	Adoption of Rules Chapter 340	4	25	86	Memo
2301	255	Alt Technology	M4 CEP Tour	0	0	0	Video
2302	255	Alt Technology	EcoLogic Toronto Update	0	0	0	Video
2303	255	Alt Technology	EcoLogic Chemical Demilitarization Update	0	0	0	Video

SUMMARY OF PUBLIC COMMENTS AND COMMISSION RESPONSES

Hazardous Waste Treatment and Storage Permit and
ORS 466.055 and 466.060 Criteria

U.S. Army Umatilla Chemical Depot
Umatilla Chemical Demilitarization Facility
I.D. Number: OR6 213 820 917

February 7, 1997

This Response to Comments document has the following Sections:

I. INTRODUCTION

The U.S. Army has applied for a hazardous waste treatment and storage permit to incinerate chemical agent munitions. The incineration treatment of the chemical agents, along with the various munition components consisting of explosives, propellants, and metal casings, is sometimes referred to as "demilitarization."

The Department of Environmental Quality reviewed the hazardous waste permit application and determined that the application was complete in accordance with Title 40 Code of Federal Regulations [40 CFR] Section 124.3.[1] The Department then issued for public comment the draft hazardous waste permit and the air contaminant discharge permit. Also issued for public comment was the Pre-Trial Burn Risk Assessment [PreRA], and, an invitation to comment on the ORS 466.055 and 466.060 criteria pursuant to which the Environmental Quality Commission must make affirmative findings before it can issue the hazardous waste permit. The comment period ended November 15, 1996.[2] At a meeting held on November 22, 1996, the Department was directed by the Commission to finalize the hazardous waste permit decisions.

[1] Adopted as Oregon Rule at OAR 340-100-002.
[2] The original comment period was extended on June 15, 1996.

II. Comments Received

All comments received during the comment period were provided to the Commission for its review. The comments were also placed in the administrative record maintained at the Department office in Bend.

At the November 22, 1996 meeting the Department provided to the Commission a summary of the comments received during the comment period. In general, the following statements can be made about the comments received.

Statistics

- 188 submittals (both verbal testimony and written comments) were received and entered into the administrative record. A submittal may have contained anywhere from one comment to tens of comments. Two submittals were noted but did not contain any testimony.
- Out of the 188 submittals, 67 were from the immediate region (e.g., Hermiston), 33 were from the region (e.g., Tri-Cities and Pendleton), and 88 were from Out-of-Region (e.g., Portland).
- Of the 67 submittals received from the immediate region, 48 (72%) were in favor of issuing the permit; 19 (28%) were not in favor of issuing the permit).
- Of the 33 submittals received from the region, 12 (36%) were in favor of issuing the permit; 21 (64%) were not in favor of issuing the permit.
- Of the 88 submittals from out-of-region, 6 (7%) were in favor of issuing the permit; 82 (93%) were not in favor of issuing the permit.

General

- The vast majority of the comments were directed towards the Commission's findings of the ORS criteria. Very few submittals dealt directly with specific conditions of the hazardous waste permit or specific items with the PreRA.
- Based on testimony from the several Commission meetings, the Commission directed that several additional permit conditions be included in the hazardous waste permit.
- Submittals received from the U.S. Army and EPA Region 10 did contain many comments on specific conditions of the permit.

Issue: Incineration Is The Best Available Technology

120 submittals contained comments regarding whether incineration represents best available technology. The significant comments are listed below.

Agree

- Incineration has been found by independent experts to be an acceptable technology
- JACADS and Tooele are operating effectively and efficiently.
- Currently, incineration is best available technology.
- Alternative technologies are immature for chemical agent.
- There are no viable alternative technology for metal parts and energetics except incineration.
- EPA and Department of Health and Human Services contends that incineration is a safe and proven method.
- Continued storage is not a technology.
- Incineration has more control than similar industrial applications.
- Need more time to develop information on alternative technologies.

Does Not Agree

- Incineration is unsafe and costly.
- JACADS and Tooele have had experiences of upsets and operational problems.
- Incineration emits toxic chemicals and would/could effect human health, the ecology, and agricultural crops.
- "Closed-loop" technologies are better because they do no emit toxic chemicals.
- Reconfiguration and storage, or continued storage alone, and then wait for a better treatment technology is preferable.
- Other countries are using alternative technologies.
- Some alternative technologies have commercial scale applications.

Issue: The Facility Will Not Cause An Adverse Effect To Human Health Or The Environment

66 submittals contained comments regarding whether an incineration facility is needed. The significant comments are listed in the following column.

Agree

- The permit should be issued to get rid of the threat posed by chemical agent munitions
- Findings and recommendations from the NRC conclude that incineration is safe
- Delays will cause increased exposure from leaks
- Incineration is a safe technology
- Johnston Atoll ecological monitoring has shown no adverse effect

Does Not Agree

- A comparative assessment between incineration and alternative technologies is necessary to reach a decision.
- Incineration will emit dioxins and other toxins which at low dosages will create human health and environmental harm.
- The Pre-Trial Burn Risk Assessment is flawed because it omitted issues such as not evaluating certain pathways, not evaluating synergistic effects, not accounting for all the potential chemical emissions, etc.,
- The Chemical Stockpile Emergency Preparedness Program (CSEPP) is not prepared; the permit

should not be issued until it is. Sirens are not working, schools are not pressurized, inadequate resources at local level, the Emergency Operations Center is not pressurized and must use gas masks in an emergency, inadequate notification to immediate community, etc.,.

Issue: Applicant Has Demonstrated Ability And Willingness To Operate The Facility In Compliance, And, Applicant Has Demonstrated Financial And Technical Capability.

24 submittals contained comments regarding whether the Applicant (U.S. Army) has demonstrated adequate capability. The significant comments are listed below:

Agree

- Tooele and JACADS are built and operated well
- There is trust in the government that they have the expertise and care to insure safe operation

Does Not Agree

- The Army has not been able to operate the JACADS and Tooele facilities adequately
- The Army has had a history of misrepresentation, misinformation, and deceit
- The Army has been fined at JACADS by EPA for non-compliance

Issue: The Facility Is Needed

41 submittals contained comments regarding whether an incineration facility is needed. The significant comments are listed below.

Agree

- The risk of storage, and storage operations are more than the risk of incineration

Does Not Agree

- Risk of storage is exaggerated and there is no need to rush to incinerate
- The risk of storage can be lessened by reconfiguration

Issue: Public Participation

27 submittals contained comments regarding public participation. The significant comments are listed below.

Agree

- Commenters appreciated the opportunity to address the Commission face-to-face
- Citizens have been active and informed on the project

Does Not Agree

- The State has not engaged in a government-to-government relationship with the Confederated Tribes of the Umatilla Indian Reservation [CTUIR]
- DEQ has acted as an advocate of incineration, or, not as an advocate for the environment

- Public comment period was extended
- DEQ has maintained an office in Hermiston
- Commission and Department decision-makers were not at some public forums
- There is too much information to review and not enough time for people to understand all the issues

Various Issues:

Several submittals contained comments regarding various issues. These issues mentioned are listed below.

Agree with Permitting

- The Chemical Stockpile Emergency Preparedness Program (CSEPP) is not prepared; the permit should be issued to get rid of the threat posed by chemical agent munitions.
- Objection to commenters from out-of-area trying to stop the project
- There is adequate oversight for the project
- Willing to accept processing risk over risk of continued storage
- There has been a multitude of research and studies on the project
- Munitions are deteriorating with age
- Transportation is not an option

Does Not Agree with Permitting

- Dissatisfaction with the Environmental Impact Statement
- Issues of Environmental Justice
- Oregon should follow lead of other states trying to halt incineration
- Issues of previous exposures from Hanford
- There should not be a delay in permitting the facility
- No import of other waste should be allowed Federal law prohibits transportation so the stockpile must stay and be destroyed
- The stockpile should be moved to Tooele, Utah or JACADS
- The need to limit operations during adverse weather conditions
- The Chemical Stockpile Emergency Preparedness Program is not adequately ready. Sirens are not working, schools are not pressurized, inadequate resources at local level, the Emergency Operations Center is not pressurized and must use gas masks in an emergency, inadequate notification to immediate community, etc.,

III. Direction From The Commission

At the November 22, 1996 meeting, the Commission made a unanimous finding that the baseline incineration system as proposed by the U.S. Army is best available technology. After making this finding, the Commission then deliberated on the remaining ORS 466.055 and 466.060 criteria. The Commission stated that the remaining criteria could be found to be made in the affirmative, and directed that the Department and the Attorney General draft an Order for Commission issuance.

After deliberations on the remaining findings, the Commission reviewed potential permit conditions to be included. The administrative record of this meeting indicates what specific conditions are needed to be included in the hazardous waste permit. The permit conditions, as deliberated by the Commission, have been added to the final hazardous permit (see Attachment A for a listing of the permit conditions).

The Commission also directed the Department to review the Army's comments and make the appropriate technical corrections to the hazardous waste permit, as well as corrections from other comments. The Department has conducted this review and made the appropriate changes. A discussion of these changes, as required by 40 CFR 124.17(a),[3] follows in section IV.D of this document.

IV. RESPONSE TO COMMENTS

IV.A. Commission Findings

The Order that the Commission issued on February 7, 1997, serves as the formal decision and Response to Comments. The Order makes effective the affirmative findings for the ORS 466.055, 466.060, and OAR 340-120 criteria, and, summarizes some of the important issues, along with the documentation and testimony (from the Commission's administrative record) used in reaching the hazardous waste decisions.

IV.B Summary of Commission Findings

The Order issued by the Commission on February 7, 1997 stated the following about the findings pursuant to ORS 466.055, 466.060, and OAR 340-120:

For the finding that the baseline incineration system is best available technology: The Commission heard testimony from alternative technology vendors, representatives of the Army (both representing alternative technology and incineration), and other experts and stakeholders from the public, both from within the region and without. The Commission also toured the similar-site facility located near Tooele, Utah.

The Commission deliberated on the issues of operational history at Johnston Atoll and Utah, issues of dioxin emissions and combustion by-product formation, issues of possible neutralization of mustard agent and other possible technologies, and issues of availability and schedule. The Commission reviewed many written comments and heard testimony regarding alternatives. The Commission was particularly persuaded by the BEST AVAILABLE TECHNOLOGY REPORT prepared for the Department by Ecology and Environment, Inc., the REPORT ON DIOXINS by Dr. Kristiina Iisa, Oregon State University, October 1996, and testimony of Army Assistant

[3] Adopted as Oregon Rule by OAR 340-100-002.

Secretary Decker regarding potential neutralization of mustard agent. The Commission has responded in the affirmative by vote on November 22, 1996 and issued an Order dated February 7, 1997 that the baseline system is best available technology.

For the finding of meeting the 250 foot setback: The Commission reviewed the Department's staff report dated November 15, 1996 and responded in the affirmative that the facility meets this criteria.

For the finding of owner and operator capability: The Commission heard testimony from representatives of environmental organizations, the Army, and from the public regarding the operational histories at Johnston Atoll and Tooele Chemical Disposal Facility. From the testimony and comments, the Commission responded in the affirmative that the owner and operator has demonstrated adequate capability.

For the finding of adequate compliance history: As above, the Commission heard testimony of representatives from environmental organizations, the Army, and from the public regarding the operational histories at Johnston Atoll and Tooele Chemical Disposal Facility. The Commission also reviewed the Department's November 1996 staff report regarding in detail the Army's compliance history at Johnston Atoll. From the testimony and comments, the Commission responded in the affirmative that the owner and operator has demonstrated adequate capability.

For the finding that there is a need for the facility: The Commission reviewed written comments and heard testimony regarding the need. The Commission heard issues regarding the potential to disassemble and store munitions, or even continue storage until better technologies are developed, rather than continue with incineration. The Commission concluded that UMCDF will reduce, and eventually eliminate the risk to surrounding communities from continued storage of the chemical agents and munitions; therefore the need for UMCDF is demonstrated because operation of the proposed facility will result in a higher level of protection. From the testimony and comments, the Commission responded in the affirmative.

For the finding that the facility will have no major adverse effect on public health and safety, or the environment: The Commission reviewed written comments and heard testimony regarding the potential effects from the UMCDF. The Commission became aware of issues of dioxin and furan formation, known and unknown combustion by-products of incineration, and of design controls proposed for the UMCDF. The Commission was particularly persuaded by the DRAFT PRE-TRIAL BURN RISK ASSESSMENT prepared for the Department by Ecology and Environment, Inc., REPORT ON DIOXINS by Dr. Kristiina Iisa, Oregon State University, PERSPECTIVES ON THE UMATILLA QUANTITATIVE RISK ASSESSMENT RESULTS prepared by SAIC, September 1996, DEQ and Ecology and Environment RESPONSE TO RISK ASSESSMENT ISSUES, and testimony of Gary Boyd, SAIC, before the Commission on November 22, 1996. From the testimony and comments, the Commission responded in the affirmative.

IV.C Changed Permit Conditions Based on Commission Direction

As part of its deliberations to make findings on the ORS criteria, based on the testimony from the Applicant, the Department, and from interested parties, and based on the comments and concerns raised by interested parties on emergency response issues, the Commission decided that additional permit conditions should be made part of the hazardous waste permit. In accordance with 40 CFR 124.17(a)(1),[4] Attachment A lists the permit conditions that have been added or changed. Through its deliberations, these conditions were included in the hazardous waste permit by the Commission because they are deemed necessary to protect human health and the environment.

IV.D. Technical Changes to Hazardous Waste Permit

At the November 22, 1996 Commission meeting, the Department was directed to incorporate the appropriate technical changes to the permit that do not affect policy decisions. The Department reviewed comments made by the U.S. Army and EPA Region 10 and made some permit condition changes based on significant comments.

In accordance with 40 CFR 124.17[4] and at the direction of the Commission, the following significant changes have been made to the hazardous waste permit.

IV.D.1 Technical Significant Changes Based on U.S. Army Comments

The following comments were submitted by the Army November 12, 1996 and entered as comment no. 143. The following Army comment numbers are from that submittal.

- Based on Army comment no. 9, the Department has changed permit condition I.W to allow for ten days reporting, instead of three, in order to allow the Permittee to report timely, and to allow for a more thorough report.
- Based on Army comment no. 22, the Department has changed permit condition IV.H.4. to allow primary sumps to be changed out for only those primary sump systems that detect liquids in interstitial areas (between liners), instead of all sumps per campaign/annually as proposed. The Department determined that based on the small size, the potential for tank system compromised by too much "chipping out" of the surrounding concrete, and the design of the buildings themselves which minimize releases to the environment, it would be better just to remove, inspect, and repair those primary sump systems that detect leaks between the primary liner and the secondary containment.

[4] Adopted as Oregon Rule at OAR 340-100-002.

- Based on Army comments no. 25 and no. 26, the Department agrees to the requirement for Total Organic Carbon (TOC) to be measured during the trial burns and not as a continuous emissions monitor. There is not a continuous emission monitor for TOC. The Department has eliminated permit condition VI.A.3.iii., and has added permit condition VI.A.5.iii.c.
- Based on Army comment no. 45, the Department agrees that sulfur dioxide (SO_2), hydrocarbon (HC), and hydrogen chloride (HCl) do not need to be measured in the Metal Parts Furnace discharge airlock. It is sufficient to measure the airlock for agent to protect human health. The Department has changed Attachment 4.

IV.D.2 Technical Significant Changes Based on U.S. EPA Region 10 Comments

The Department met with U.S. Environmental Protection Agency Region 10 on October 28-29, 1996 to discuss comments that Region 10 had. The Department developed a memorandum of these comments and placed it in the administrative record as comment no. 187 and as administrative record index no. 2252. The comment numbers referenced below are the EPA comment numbers found in the memorandum.

- Based on EPA comment no. 19, the Department agrees that an assessment and an appropriate permit modification must be submitted to address secondary containment for the MDB carbon filters units. This condition is consider necessary and consistent with the Army review of the Tooele Chemical Disposal Facility detection of agent leaks at the carbon filters units. The Department has added permit condition II.O.10 to require an assessment within 360 days of the effective date of the permit.
- Based on EPA comment no. 36, the Department agrees that the Brine Reduction Unit, which is a unit factored in the Pre-Trial Burn Risk Assessment, should have the same level of notification requirement for emission exceedances as for the incinerator units. Therefore, the Department has added permit condition V.A4.vii to include a notification requirement if emission rates are exceeded.
- Based on EPA comments no. 43 and no. 71, the Department agrees that additional chemical-specific feed rate limits should be added in addition to the munition feed rate limits. The additional feed rate limits will help insure that any potential variations in the chemical makeup of the waste will not exceed emission limits which have been determined to be protective in the Pre-Trial Burn Risk Assessment. The Department has revised Tables 6-1, 6-4, 6-8, and 6-12, and, permit conditionVII.B.3.i.

IV.E. Other Changes to the Permit

At the November 22, 1996 Commission meeting, the Department was directed to also make minor (i.e., insignificant) changes. The U.S. Army and U.S. Environmental Protection Agency made many minor comments regarding the draft hazardous waste permit.

The Department reviewed the comment and made appropriate changes. The changes in nature were: Typographical errors, editorial changes, wording change for clarification, modifications to aid in enforcement but not changing the requirement, changes to make condition consistent with the Part B permit application, changes to add more specificity but not changing the requirement, and changes to add more stringency without altering operations as proposed by the Permittee.

IV.F. Changes That Were Not Made to the Permit

As stated before, many comments were received from the Army and EPA Region 10, and just a few from others. The Commission and Department reviewed these comments and decided that there inclusion in the hazardous waste permit is not warranted.

1) *STORAGE RISK - MODIFICATION TO THE OPENING STATEMENT OF THE PERMIT INTRODUCTION FOUND ON PAGE 3*

The Permittee shall proceed expeditiously in procuring a contractor, beginning construction and commencing operation of the Umatilla Chemical Disposal Facility (UMCDF) in order to eliminate the significant risk to human health and the environment posed by the continued storage of the chemical weapons and chemical agents at the Umatilla Chemical Storage Depot.

2) *CSEPP READINESS- PERMIT CONDITIONS*

II.H.4. The Permittee shall submit within 150 days of the effective date of the permit and every 180 days thereafter until all agent at the Depot has been destroyed; a written progress report to the Department on the status of the Chemical Stockpile Emergency Preparedness Program (CSEPP). The report shall evaluate CSEPP's readiness for responding to an incident at the Umatilla Chemical Depot and should address at a minimum, status of community emergency sirens and distribution of tone alert radios of the Alert Notification System (ANS); the ability to provide off-site chemical agent monitoring and decontamination during an incident, off-site triage and treatment of casualties; and, the state of enhanced sheltering and positive pressurization of buildings, such as schools and hospitals, where substantial numbers of persons can be expected to gather daily. [40 CFR 270.32(b)(2)]

II.H.4.i. The Permittee shall not commence any thermal shakedown, trial burn, or post-trial burn activity, as defined in Module VI, until the Department has notified the Permittee in writing that it has received written notification from the Governor of the State of Oregon, or his designee, that an adequate emergency response program is in place and fully operational for protecting the general population (Chemical Stockpile Emergency Preparedness Program [CSEPP]). The written determination of the Governor (or his designee) shall be placed in the administrative record.[40 CFR 270.32(b)(2)]

3) *REMOVAL OF THE UMCDF STRUCTURES AT CLOSURE - PERMIT CONDITIONS*

II.J.9 Following submittal of all successful closure decontamination certifications in accordance with permit condition II.J.6., the Permittee shall dismantle, remove, and properly manage the disposal of the Munition Demilitarization Building (MDB) to an approved disposal facility. All other structures (e.g., buildings, parking areas, underground structures, fences, etc.,) within the boundary of the UMCDF shall also be properly managed and removed to a disposal facility. All areas where structures have been removed shall be reclaimed. If the Umatilla Chemical Depot - Local Reuse Authority (UCD-LRA) identifies a use for any of the structures, except the MDB, the Permittee may request a modification to this permit condition as a class 2 modification in accordance with 40 CFR §270.42(b) and 40 CFR §270.32(b)(2) to accommodate such use.

4) *PAS CARBON FILTER UNIT AND EMISSION TO THE CARBON FILTERS - PERMIT CONDITIONS*

II.R. The Permittee shall build and operate the Pollution Abatement System (PAS)/PAS Filter Systems for each incinerator in accordance with the appropriate drawings of Volume 5, Attachment D-3 and Volume VII of the application, Sections D-5B-02, D-5B-07, D-6B-02, D-6B-04, D-7B-02, D-7B-05, D-8B-02, D-8B-04, and D-8B-05. Removal of any component of the PAS Filter Systems, including but not limited to, the quench tower, venturi scrubber, packed scrubber tower, demister, or carbon filter system shall be a Class 3 permit modification and shall require Commission approval.

VI.A GENERAL CONDITIONS DURING SHAKEDOWN, TRIAL-BURN AND POST TRIAL-BURN FOR ALL THE INCINERATORS AT THE UMCDF SITE.

VI.A.1 CONSTRUCTION AND MAINTENANCE [40 CFR§264.31](trial burn stds.)

vi. The Permittee shall maintain and operate each incinerator during shakedown, trial burn and post-trial burn periods in accordance with the operating requirements specified in this permit. Each incinerator shall meet the applicable performance standards specified in permit conditions VI.B.1., VI.C.1., VI.D.1., and VI.E.1. before entering each incinerator's carbon filter system.

VII.A.8 GENERAL OPERATION (normal operation standards)

The Permittee shall maintain and operate each incinerator during shakedown, trial burn and post-trial burn periods in accordance with the operating requirements specified in this permit. Each incinerator shall meet the applicable performance standards specified in permit conditions VII.B.2., VII.C.2., VII.D.2., and VII E.2. before entering each incinerator's carbon filter system.

5) *EOC POSITIVE PRESSURE - PERMIT CONDITIONS*

II.H.5. For the UCD Emergency Operations Center (EOC) that gathers or disseminates information used to respond to off-Depot releases, the Permittee shall have a positive-pressurized Emergency Operations Center (EOC) that is adequately staffed 24 hours a day, 7 days a week. For this permit condition, "positive-pressurized" shall mean that ambient non-air vapors can not enter during times of emergency training, in the event of an actual emergency, or when tested on request by a Department inspector. The EOC must be pressurized within 300 days of the effective date of this permit, and the EOC is to comply with the staffing requirement within 90 days of the effective date of this permit.

6) *ARMY ASSURANCE OF INDEPENDENT OVERSIGHT - PERMIT CONDITIONS*

II.E.5. The Permittee shall submit, within 180 calendar days of the effective date of this permit, a written program that describes the independent oversight process for the demilitarization construction activities, health and safety operations, and chemical agent process/handling operations at the UMCDF site. All reports generated by the oversight activities described in this report and reports of independent investigations shall be made available to the Department within 15 days of report finalization, in order for the Director of the Department to attest to the effectiveness of the independent oversight program. With written direction from the Department, the Permittee shall place such

inspection reports in a public repository in Hermiston, Oregon. In the case of special independent investigations caused by unique and non-routine incidents, the Permittee shall notify the Department of the initiation of the investigation within 24 hours of the time the Permittee becomes aware of the investigations. Upon request by the Department or Commission, the permittee shall provide an updated report describing the independent oversight program that incorporates all appropriate additions and changes in response to any deficiencies or requested changes. An independent oversight review shall be conducted on a periodic basis and when specifically requested by the Department or Commission. If the Commission is not satisfied with the independent oversight program or the results of the independent investigations, the Commission may issue an order to halt immediately all operations.

7) *SHUTDOWN CONDITIONS - PERMIT CONDITIONS*

I.C.2. In accordance with ORS 466.170, the Commission may revoke this permit after public hearing upon a finding that the Permittee has violated any provision of ORS 466.005 to 466.385 and 466.890 or rules adopted pursuant thereto or any material condition of the permit, subject to review under ORS 183.310 to 183.550.

I.C.3. In accordance with ORS 466.200, if the Department or Commission finds that there is reasonable cause to believe that a clear and immediate danger to the public health, welfare or safety or to the environment exists from the continued operation of the site, the Department may halt demilitarization operations at the UMCDF. Non-compliance with the Department's written notification shall be a violation of this permit condition. Resumption of operations shall be initiated only upon written approval of the Department.

I.L.2. In accordance with ORS 466.180(1), the Department or Commission may limit, prohibit, or otherwise restrict storage and treatment operations at the UMCDF upon receipt of information that indicates non-compliance with permit condition I.L.1. The Department shall invoke such restrictions by written notification that specifies actions that the Permittee must take to comply. Non-compliance with the Department's written notification shall be a violation of this permit condition.

8) *LIABILITY ISSUE - PERMIT CONDITIONS*

II.M. The Permittee must provide the liability coverage for sudden-and-accidental-occurrence requirements, as specified in 40 CFR §264.147, and provide liability insurance in accordance with ORS 466.105(5), and 40 CFR §264.147(a) unless exempted by state or federal law.

9) *BAD WEATHER CONDITIONS - PERMIT CONDITIONS*

II.A.3. The Permittee shall submit to the Department a request for a Class 2 permit modification, within 180 days of the effective date of this permit, identifying the standard operating procedures that will be followed by Umatilla Chemical Depot and UMCDF personnel for handling and transporting munitions from the storage igloos to the UMCDF site, and for hazardous waste treatment, during inclement weather or adverse wind conditions. The Standard Operating Procedures must include a description of the weather conditions, in addition to the procedures that are to be followed by UCD and UMCDF personnel.

10) *BASELINE MONITORING - PERMIT CONDITIONS*

II.A.4.i. Within 180 days of the effective date of the permit, the Permittee shall submit for Department review and approval a Comprehensive Monitoring Program (CMP) workplan to implement a program that will confirm results of the Pre-Trial-Burn and Post-Trial-Burn Risk Assessments for each of the areas described: Zone 1 - the Umatilla Chemical Demilitarization Facility to the Umatilla Chemical Depot fenceline, Zone 2 - the Umatilla Chemical Depot fenceline out to a fifty-kilometer radius from the UMCDF common stack, and Zone 3 - locations beyond the fifty-kilometer radius. Within the CMP, Zone 1 also is to include a monitoring system to detect permitted and unpermitted releases. The CMP for Zones 1,2, and 3 shall, at a minimum, include the following elements:

1. Baseline Monitoring Program, to include;

a) A current assessment of contamination of environmental media (e.g., air, soil, surface water) and ecological endpoints that are potential receptors from pathways from the Umatilla Chemical Demilitarization Facility (UMCDF) for each of the three zones described above; and,

b) A sampling and analysis plan with appropriate Data Quality Objectives(DQO), for all three zones to assess potential impacts from the UMCDF site. The sampling and analysis plan must include the rationale for the size, number and location of sampling points, frequency of sampling, and the rationale for the parameters being monitored.

2. Perimeter Monitoring Program in Zone 1, to include;

a) A sampling and analysis plan with appropriate Data Quality Objectives(DQO) for monitoring within and at the perimeter of, Zone 1, that is capable, in a timely manner, of assessing emissions of unpermitted releases of chemical agent from the UMCDF site, and from storage igloos, and;

b) An update to the Contingency Plan to include appropriate reaction and notifications.

3. An Historical Record, to include a written reporting and file maintenance program to effectively maintain the results of the Comprehensive Monitoring Program on an annual basis.

II.A.4.ii. Within 60 days of the Department's written approval of the CMP workplan, or written approval of a Department-modified CMP workplan, the Permittee shall submit a permit modification in accordance with 40 CFR 270.42 to implement the CMP workplan. All information generated pursuant to the monitoring program shall be placed in a public repository in Hermiston following written direction from the Department.

11) *OFF-SITE WASTE PROHIBITION - PERMIT CONDITIONS*

II.B. Receipt of Off-site Waste, Processing and Shipment of Onsite Waste

1. The Permittee is not authorized to accept and therefore shall not receive hazardous waste, chemical agent, or munitions containing chemical agents from off-site.

2. The Permittee shall not send any material or waste off-site that has detectable amounts of GB, VX, or HD. Only material or wastes meeting the agent-free 3X or 5X criteria may be sent off-site.

3. The Permittee shall process, in accordance with this permit, all chemical agents, and chemical agent-contaminated materials currently stored or otherwise located at the Umatilla Chemical Depot.

12) *PERMIT OPENER - PERMIT CONDITIONS*

I.C.4. If Congress or the President makes substantial changes in the Chemical Weapons Demilitarization program or in CSEPP, the Commission reserves the right to reopen the permit, after appropriate opportunity for the permittee and, at the discretion of the Commission, government officials and the public to be heard. If the Commission determines to reopen the permit, it may remove or modify conditions or impose additional conditions, relating to the reason for reopening the permit.

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

In the Matter of Hazardous Waste Storage and Treatment Permit No. ORQ 000 009 431 Umatilla Chemical Agent Disposal Facility (UMCDF) Permit Modification No. UMCDF-01-028-MISC(EQC), "Approval Process for UMCDF Operations."	FINDINGS AND CONCLUSIONS OF THE COMMISSION AND ORDER

BACKGROUND FINDINGS

1. On February 10, 1997, the Environmental Quality Commission issued FINDINGS AND CONCLUSIONS OF THE COMMISSION AND ORDER ("Commission Order") directing issuance of a Hazardous Waste Storage and Treatment Permit (HW Permit) to the United States Army (Army) for construction and operation of incinerators to destroy chemical weapons stored at the Umatilla Chemical Depot (the incineration facility is known as the Umatilla Chemical Agent Disposal Facility or UMCDF).

2. The UMCDF HW Permit names the U.S. Army Umatilla Chemical Depot (UMCD) and U.S. Army Project Manager for Chemical Stockpile Disposal (PMCSD) as Owner and Operator, and Washington Demilitarization Company (WDC) as Co-Operator. Collectively, these three entities are referred to as the "Permittees."

3. On September 21, 2001, the Environmental Quality Commission (Commission) directed the Department of Environmental Quality (Department) to prepare and issue a proposed modification to the UMCDF HW Permit requiring written Department approval for the Permittees to start UMCDF surrogate testing operations and written Commission approval for the Permittees to start UMCDF agent destruction operations.

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4. On October 22, 2001, the Department issued for public review and comment a proposed permit modification ["Approval Process for UMCDF Operations," Tracking Number UMCDF-01-028-MISC(EQC)] to the UMCDF HW Permit.

5. A public comment period on the proposed permit modification UMCDF-01-028-MISC(EQC) was held open from October 22 through December 10, 2001.

6. The Department held a public hearing on proposed permit modification UMCDF-01-028-MISC(EQC) on November 29, 2001. One oral comment was received.

7. The Commission accepted additional oral public comment on proposed permit modification UMCDF-01-028-MISC(EQC) on December 7, 2001. Five oral comments were received.

8. Fourteen (14) written comments were submitted during the public comment period. A full copy of all comments received during the public comment period was sent by the Department to the Commission on December 12, 2001.

9. Written transcripts of the oral public comments provided on both November 29 and December 7, 2001 were sent to the Commission on February 15, 2002.

10. The Department revised the proposed permit modification UMCDF-01-028-MISC(EQC) to address written and oral comments received during the public comment period. A copy of the revised proposed permit modification UMCDF-01-028-MISC(EQC) was sent to the Commission on February 15, 2002.

11. The Commission held a meeting to consider the proposed modification UMCDF-01-028-MISC(EQC) to the UMCDF HW Permit on March 8, 2002. Additional oral discussion and comment were provided at this meeting by Department staff and the Army. A complete index of documents reviewed by the Commission as part of the Administrative Record for this proceeding is attached to this Order as Exhibit A.

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GENERAL FINDINGS PERTAINING TO UMCDF DESIGN MODIFICATIONS

12. In accordance with 40 CFR §270.41(a)(1), the Commission may unilaterally modify a hazardous waste facility permit upon a finding that there have been "material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit."

13. UMCDF was constructed without the Dunnage Incinerator, which was initially proposed by the Permittees and permitted by the Commission as the primary treatment unit for secondary process wastes generated during UMCDF operations.

14. With the elimination of the Dunnage Incinerator, over half of the hazardous waste streams listed in the UMCDF Waste Analysis Plan (Attachment 2 of the HW Permit) have no identified permitted treatment unit.

15. Condition II.B.3. of the HW Permit requires the Permittees to process "all chemical agents and chemical agent-contaminated materials currently stored or otherwise located at the Umatilla Chemical Depot." The Permittees have not yet submitted the necessary permit modification requests to treat agent-contaminated materials stored at UMCD.

16. UMCDF submitted extensive design upgrades to the Pollution Abatement System Carbon Filter System [Permit Modification Nos. UMCDF-97-005-PAS(2TA), "Pollution Abatement System Carbon Filter System," and UMCDF-99-043-PAS(2), "Upgrade of the Exhaust Induced Draft Fans and Rectifying Permit Inconsistencies."].

17. As of March 15, 2002, the Department has reviewed 1125 "Engineering Change Proposals" representing 4,967 engineering changes made during UMCDF construction.

18. As of March 25, 2002, the Permittees have made 90 submittals to the Department under HW Permit Condition II.Q., which allows the Permittees to inform the

Department when equipment, materials, or procedures are being replaced with "equivalent or superior" items and so do not require a permit modification.

19. As of March 25, 2002, the Permittees have submitted 137 Permit Modification Requests to the Department, including five Class 3 modifications, 31 Class 2 modifications and 101 Class 1 modifications.

20. The cumulative effect of the engineering changes warrants agency review of compliance and operational status prior to start of hazardous waste operations at UMCDF.

GENERAL FINDINGS PERTAINING TO NEW INFORMATION ABOUT UMCDF OPERATIONS

21. In accordance with 40 CFR §270.41(a)(2) the Commission may unilaterally modify a hazardous waste facility permit upon a finding that there is new information, "not available at the time of permit issuance [that] would have justified the application of different permit conditions at the time of issuance."

22. The primary permitted treatment unit for chemical agent-contaminated process wastes (Dunnage Incinerator) will not be constructed at UMCDF.

23. UMCDF's operational schedule to treat the chemical agent stockpile has been extended from the original estimated duration of 40 months to 70 months. The 70-month time frame does not include the time needed to treat UMCD wastes and UMCDF secondary process wastes.

FINDINGS REGARDING LEGAL STANDARDS FOR PERMIT MODIFICATION

24. The Commission may unilaterally modify a hazardous waste facility permit upon a finding that any of the following causes set forth in 40 CFR §270.41 (incorporated by reference through Oregon Administrative Rule (OAR) 340-100-0001 et seq.) exist:

A. "There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit." *See* 40 CFR §270.41(a)(1).

B. "The Director has received information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance." *See* 40 §CFR 270.41(a)(2).

C. New statutory, regulatory, or judicially mandated standards. *See* 40 CFR §270.41(a)(3).

D. "Acts of God" or uncontrollable circumstances warranting revised compliance schedules. *See* 40 CFR §270.41(a)(4).

25. The legislative policy stated in Oregon Revised Statute (ORS) 466.010 gives the Commission the authority to protect the public health and safety and the environment of Oregon to the "maximum extent possible" and "exercise the maximum amount of control over actions within Oregon relating to hazardous waste."

26. Section 3005 of the Resource Conservation and Recovery Act (RCRA), 40 CFR §270.32 ("omnibus" authority), and Oregon implementing regulations (OAR Divisions 100 and 105) allow inclusion of permit conditions not specifically identified in the regulations where the regulatory agency finds such conditions necessary to protect public health and the environment. 40 CFR §270.32(b)(2) states that "Each permit issued under section 3005 of this act shall contain terms and conditions as the Administrator or State Director determines necessary to protect human health and the environment."

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CONCLUSION OF THE COMMISSION

27. The Commission has adequate legal authority to unilaterally modify the UMCDF HW Permit as proposed.

28. The design modifications made to UMCDF since the original HW Permit was issued in February 1997 constitute "material and substantial alterations" to the UMCDF. The cumulative impact of these changes is significant.

29. The extended UMCDF operational schedule and the lack of identified treatment units for UMCDF and UMCD chemical agent-contaminated wastes constitute new information that was not available when the HW Permit was issued and which would have justified different permit conditions.

30. Chemical agent-contaminated wastes from UMCD and UMCDF pose a threat to human health and the environment. Permit Modification UMCDF-01-028-MISC(EQC), "Approval Process for UMCDF Operations," gives the Commission and the Department explicit regulatory authority regarding the identification and permitting of treatment methodologies for secondary process wastes prior to surrogate and/or chemical agent operations at UMCDF.

31. On the basis of the Administrative Record set forth in Exhibit A to this Order, sufficient cause exists to unilaterally modify the UMCDF Hazardous Waste Storage and Treatment Permit (No. ORQ 000 009 431) pursuant to the criteria set forth at 40 CFR §270.41(a)(1) and 40 CFR §270.41(a)(2).

32. The Commission adopts the recommendations in the Staff Report dated February 15, 2002 (presented to the Commission on March 8, 2002) as modified in Exhibit B.

33. The modification to the UMCDF HW Permit adding Permit Condition II.A.5. and Attachment 6 ("Requirements for Commencement of Unit and Facility Operations"), as set forth in Exhibit B, is necessary to protect human health and the environment. The

UMCDF Permittees must obtain written Department approval for the start of surrogate operations, and written Commission approval for the start of chemical agent operations.

ORDER

Now, therefore, IT IS ORDERED that:

1. These findings, conclusions and order shall constitute the Commission's final permit modification decision and response to public comments.

2. Hazardous Waste Storage and Treatment Permit No. ORQ 000 009 431 is modified in accordance with Permit Modification No. UMCDF-01-028-MISC(EQC), "Approval Process for UMCDF Operations," as set forth in Exhibit B.

3. This Order shall be an Order in Other Than A Contested Case, and no administrative appeal of the permit modification shall be provided to the applicant or third parties.

DATED this 28th day of March, 2002.

Melinda S. Eden, Chair
For the Environmental Quality Commission

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EXHIBIT A
Permit Modification No. UMCDF-01-028-MISC(EQC)
ADMINISTRATIVE RECORD

DEQ Item No	Document Description	Date of Document	Date Received	Organization From	Organization To
01-1103	Agenda Item H, Action Item: Approval Process for Umatilla Chemical Agent Disposal Facility Operation September 20-21, 2001 EQC Staff Report [UMCDF-01-028-MISC(EQC)]	8/31/2001	8/31/2001	Oregon DEQ-Headquarters	Oregon Environmental Quality Commission (EQC)
01-1104	CDP Presentation to EQC at September 20-21, 2001 Meeting- Approval Process for UMCDF Operations Agenda Item H UMCDF-01-028-MISC(EQC)	9/21/2001	9/21/2001	Oregon DEQ-Hermiston	EQC
01-1105	Army Presentation to EQC at 9/21/01 Meeting-UMCDF Status Report UMCDF-01-028-MISC(EQC)	9/21/2001	9/21/2001	Permittees	EQC
01-1177	Press Release: U.S. Army Chemical Demilitarization Program Releases Updated Official Schedule and Cost Estimates	10/4/2001	10/7/2001	U.S. Army Program Manager Chemical Demilitarization (PMCD)	Media
01-1284	Public Notice: Request For Comments and Notice of Public Hearing, UMCDF-01-028-MISC(EQC), Approval Process For UMCDF Operation	10/22/2001	10/23/2001	Oregon DEQ-Hermiston	Public Mailing List
01-1296	Fact Sheet and Information Package For UMCDF-01-028-MISC(EQC), Proposed Permit Modification For Approval Process For UMCDF Operation	10/23/2001	10/23/2001	Oregon DEQ-Hermiston	Public Mailing List

DEQ Item No	Document Description	Date of Document	Date Received	Organization From	Organization To
01-1327	Transmittal of Information Package - Proposed Modification to the UMCDF Hazardous Waste Permit "Approval Process for UMCDF Operations"	11/2/2001	11/2/2001	Oregon DEQ-Hermiston	EQC/DEQ-Headquarters/ Dept of Justice
01-1385	E-Mail: Comment From Andrew Butz on Permit Modification Request UMCDF-01-028-MISC(EQC), Approval Process For UMCDF Operation.	11/26/2001	11/26/2001	Public	Oregon DEQ-Hermiston
01-1408	Invitation to Comment on Permit Modification Request UMCDF-01-028-MISC(EQC), "Approval Process for UMCDF Operations"	11/29/2001	11/29/2001	Oregon DEQ-Hermiston	Umatilla Chemical Agent Disposal Facility (UMCDF)
01-1409	Invitation to Comment on Permit Modification Request UMCDF-01-028-MISC(EQC), "Approval Process for UMCDF Operations"	11/29/2001	11/29/2001	Oregon DEQ-Hermiston	GASP et al
01-1418	John Herron Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	11/30/2001	12/3/2001	Public	Oregon DEQ-Hermiston
01-1425	DEQ Memorandum Presiding Officers Report 11/29/01 Public Hearing Permit Number ORQ 000 009 431 with sign in sheets (Attachment 01-1426 Audio Tape)	12/3/2001	12/4/2001	Oregon DEQ-Pendleton	Oregon DEQ-Hermiston
01-1426	Attachment to 01-1425: Audio Tape From 11/29/01 Public Hearing Permit Number ORQ 000 009 431	12/3/2001	12/4/2001	Oregon DEQ-Pendleton	Oregon DEQ-Hermiston

DEQ Item No	Document Description	Date of Document	Date Received	Organization From	Organization To
01-1465	Stephen McFadden Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	12/10/2001	12/10/2001	Public	Oregon DEQ-Hermiston
01-1473	Confederated Tribes Of The Umatilla Indian Reservation Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	12/7/2001	12/10/2001	Confederated Tribes of the Umatilla Indian Reservation (CTUIR)	Oregon DEQ-Hermiston
01-1474	John Ledger Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	12/10/2001	12/10/2001	Associated Oregon Industries	Oregon DEQ-Hermiston
01-1475	Confederated Tribes Of The Umatilla Indian Reservation Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	12/7/2001	12/10/2001	CTUIR	Oregon DEQ-Hermiston
01-1476	Frank Harkenrider Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	12/7/2001	12/10/2001	Public	Oregon DEQ-Hermiston

DEQ Item No	Document Description	Date of Document	Date Received	Organization From	Organization To
01-1477	Bob Severson Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	12/8/2001	12/10/2001	City of Hermiston (OR)	Oregon DEQ-Hermiston
01-1478	Public Hearing Transcript for the Permit Modification UMCDF-01-028-MISC(EQC) Held on 11/29/01	11/29/2001	12/10/2001	Bridges & Associates	Oregon DEQ-Hermiston
01-1483	Bob Palzer Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	12/10/2001	12/10/2001	Public	Oregon DEQ-Hermiston
01-1484	Public Comment from Morrow County Concerning Modification No. UMCDF-01-028-MISC(EQC), Testimony Before The Environmental Quality Commission, Dec. 7, 2001	12/7/2001	12/10/2001	Morrow County (OR)	Oregon DEQ-Hermiston
01-1485	James Wilkinson Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	12/10/2001	12/10/2001	Public	Oregon DEQ-Hermiston
01-1486	Permittees' Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC(EQC) "Approval Process for UMCDF Operation".	12/7/2001	12/10/2001	UMCDF	Oregon DEQ-Hermiston

DEQ Item No	Document Description	Date of Document	Date Received	Organization From	Organization To
01-1487	Stephen A McFadden M.S. Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC	12/10/2001	12/10/2001	Public	Oregon DEQ-Hermiston
01-1488	Karyn Jones of GASP Comments on Proposed Modification of Hazardous Waste Storage and Treatment Permit for the Umatilla Chemical Agent Disposal Facility UMCDF-01-028-MISC	12/10/2001	12/10/2001	GASP et al	Oregon DEQ-Hermiston
01-1489	Permittees' Comments to Permit Modification UMCDF-01-028-MISC(EQC)	12/10/2001	12/10/2001	UMCDF	Oregon DEQ-Hermiston
01-1490	Request For Legal Advice Concerning Proposed Permit Modification No. UMCDF-01-028-MISC(EQC), "Approval Process for Umatilla Chemical Agent Disposal Facility (UMCDF) Operation"	12/11/2001	12/11/2001	Oregon DEQ-Hermiston	Dept of Justice
01-1495	Supporting information to Document #01-1489: PMCD Policy Statement No. 28 Concerning Preoperational Surveys and Operational Readiness Evaluations (OREs) [Includes TOCDF Preoperational Survey (UMCDF-01-028-MISC(EQC)]	6/1/2000	12/11/2001	PMCD	Oregon DEQ-Hermiston
01-1494	Memorandum Transmitting Public Comments Received during the Comment Period for Proposed Permit Modification Request No. UMCDF-01-028-MISC(EQC), "Approval Process for Umatilla Chemical Agent Disposal Facility (UMCDF) Operation"	12/12/2001	12/12/2001	Oregon DEQ-Hermiston	EQC/DEQ-Headquarters
01-1529	Environmental Quality Commission Minutes of the Two Hundred and Ninety-Eighth Meeting on September 20-21, 2001, Regular Meeting	9/20/2001	12/14/2001	EQC	Attendees

DEQ Item No	Document Description	Date of Document	Date Received	Organization From	Organization To
01-1541	Transcript of Comments Received on Permit Modification UMCDF-01-028-MISC(EQC) at the Environmental Quality Commission Meeting Held on December 7, 2001 in Portland (CD-ROM Included)	12/7/2001	12/17/2001	Steinbock, Mundt & Galisky, Inc.	Oregon DEQ-Hermiston
01-1562	Transmittal of Written Comments Received on Permit Modification No. UMCDF-01-028-MISC(EQC)	12/21/2001	12/21/2001	Oregon DEQ-Hermiston	UMCDF
02-0012	Attachment of 02-0011 - PMCD Pre-Op Policy and Program Examples	1/2/2002	1/2/2002	UMCDF	EQC
02-0137	Memorandum From Larry Edelman Regarding Legal Issues Related to Proposed UMCDF Permit Modification 01-028-MISC(EQC), "Approval Process for UMCDF Operation"	1/25/2002	1/28/2002	Dept of Justice	Oregon DEQ-Hermiston
02-0259	Staff Report Agenda Item E, Action Item: Decision on Modification of the Umatilla Chemical Agent Disposal Facility (UMCDF) Hazardous Waste Permit to Incorporate Start-Up Approval Conditions March 7-8, 2002 EQC Meeting	2/15/2002	2/15/2002	Oregon DEQ-Headquarters	EQC
02-0260	Transmittal of Staff Report Related to Agenda Item E, Environmental Quality Commission Meeting March 8, 2002 Attachment 02-0259	2/15/2002	2/15/2002	Oregon DEQ-Hermiston	EQC
02-0323	Additional Comments from Permittees, Agenda Item E for March 7-8, 2002, Environmental Quality Commission Meeting: Proposed Modification of the UMCDF Hazardous Waste Permit	3/5/2002	3/5/2002	UMCDF	EQC
All previous permit actions and permit modifications available for review in the DEQ Hermiston office and are hereby incorporated by reference in this administrative record					

EXHIBIT B
Permit Modification No. UMCDF-01-028-MISC(EQC)
MODIFICATIONS TO PERMIT NO. ORQ 000 009 431

Underlined text to be added to the Umatilla Chemical Agent Disposal Facility Hazardous Waste Storage and Treatment Permit No. ORQ 000 009 431

MODULE II—GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

II.A.5. Commencement of Hazardous Waste Operations

i. The Permittee shall not introduce hazardous waste into any permitted hazardous waste treatment or storage unit until the applicable requirements of Attachment 6 have been met.

ATTACHMENT 6

REQUIREMENTS FOR COMMENCEMENT OF UNIT AND FACILITY OPERATIONS

A. Introduction

In accordance with Permit Condition II.A.5., the Permittee shall not introduce hazardous waste into any permitted hazardous waste treatment or storage unit until the requirements of this Attachment have been met. It is the purpose of this Attachment to clarify specific requirements that must be met prior to the commencement of Shakedown Period I (Surrogate Shakedown) and Shakedown Period II (Agent Shakedown) for the first incinerator to commence Shakedown Period I or II. This Attachment also includes requirements for commencement of Shakedown Period I or II on each individual incinerator, and requirements to be met prior to introducing hazardous waste into other permitted treatment and storage units.

B. Requirements for Commencement of Operations of Permitted Hazardous Waste Treatment Or Storage Units

Prior to introducing hazardous waste into any permitted treatment or storage unit, or commencing a Shakedown Period I or II for the Liquid Incinerators (LICs) 1 or 2, Deactivation Furnace System (DFS), or Metal Parts Furnace (MPF), the Permittee must:

B.1. Be in compliance with all HW Permit Conditions applicable to the permitted treatment or storage unit;

B.2. Be in compliance with applicable conditions located elsewhere in this Attachment; and

B.3. Be in compliance with all applicable Permit Modification Request approval conditions imposed by the Department.

C. Requirements for Commencement of Shakedown Period I (Surrogate) on the First Incinerator

Prior to commencing a Shakedown Period I (Surrogate) for the first incinerator, the Permittee must complete all of the following:

C.1. No less than 30 days, nor more than 90 days, prior to the beginning of the first Shakedown Period I, the Permittee must notify the Department in writing that each of the UMCDF drawings in Volume V of the HW Permit Application, and the specifications contained in Volumes IV, VI, and VII, have been certified by a qualified Professional Engineer licensed in Oregon within the preceding 12 months, or that the Permittee has reviewed the specification(s) or drawing(s) and determined that no update is needed;

C.2. The Permittee must submit Permit Modification Request(s) to the Department to add secondary wastes expected to be generated by UMCDF operations to the list of permitted waste feed streams to the Liquid Incinerators, Deactivation Furnace System and/or the Metal Parts Furnace;

C.3. The Permittee must submit Permit Modification Request(s) to the Department to modify the Metal Parts Furnace (design and permitted waste feed streams) as necessary to treat personal protective equipment and other halogenated and non-halogenated plastics;

C.4. The Permittee and the Department must have reached agreement on the procedure to ensure that specified Department staff will have adequate 24-hour access, without undue delay, to the Department's on-site work spaces both outside the double-fence area of UMCDF, and within UMCDF; and

C.5. The Permittee must have written notification from the Department authorizing the start of surrogate shakedown operations.

D. Requirements for Commencement of Shakedown Period II (Agent) on the First Incinerator

Prior to commencing a Shakedown Period II (Agent) for the first incinerator, or by the date specified, the Permittee must complete all of the following:

D.1. The Permittee must implement a waste/munitions tracking procedure and system approved by the Department;

D.2. The Permittee must obtain approval of the Class 3 Permit Modification Request UMCDF-00-004-WAST(3), "Permitted Storage in J-Block" providing additional permitted storage for secondary wastes generated by UMCDF operations. Any

required physical and/or procedural changes necessary for the storage of secondary wastes must be implemented by UMCDF;

D.3. No less than 30 days, nor more than 90 days, prior to the beginning of the first Shakedown Period II, the Permittee must notify the Department in writing that each of the UMCDF drawings in Volume V of the HW Permit Application, and the specifications contained in Volumes IV, VI, and VII, have been certified by a qualified Professional Engineer licensed in Oregon within the preceding 12 months, or that the Permittee has reviewed the specification(s) or drawing(s) and determined that no update is needed;

D.4. The Permittee must complete the characterization and/or segregation of UMCD wastes and obtain Department approval of Permit Modification Request(s) to add all UMCD wastes to the list of permitted waste feed streams to the Liquid Incinerators, Deactivation Furnace System and/or the Metal Parts Furnace;

D.5. No later than September 1, 2002, the Permittee must notify the Department in writing that a technical decision has been reached on the treatment method that will be utilized for agent-contaminated carbon. The notification must include supporting information concerning the basis for the decision;

D.6. No less than 45 days, nor more than 90 days, prior to the beginning of the first Shakedown Period II, the Permittee must submit a progress report to the Department concerning the status of the design and implementation of the carbon treatment technology identified per Permit Condition D.5. of this Attachment;

D.7. The Permittee must provide to the Department copies of any Pre-Operational Survey(s) and/or Operational Readiness Evaluation(s) conducted in accordance with the Program Manager for Chemical Demilitarization's (PMCD) Policy Statement No. 28 governing the conduct of such surveys or evaluations at demilitarization facilities;

D.8. The Permittee must provide to the Department a verification statement that all nonconformances/observations designated as "Category 1" from Pre-Operational Surveys and/or Operational Readiness Evaluations have been resolved in accordance with PMCD's Policy Statement No. 28;

D.9. The Permittee must provide to the Department the schedule for resolution of items identified in Pre-Operational Surveys and/or Operational Readiness Evaluations that were designated as "Category 2," in accordance with PMCD's Policy Statement No. 28;

D.10. The Permittee must provide to the Department a copy of the PMCD authorization to start chemical agent operations; and

D.11. The Permittee must have written notification from the Environmental Quality Commission authorizing the start of agent shakedown operations.

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State of Oregon
Department of
Environmental
Quality

Umatilla Chemical Demilitarization Program
Status Update
Environmental Quality Commission
May 9, 2003

Umatilla Chemical Demilitarization Program

Permit Modifications: As of May 7, 2003 the Department has received a total of 190 Permit Modification Requests, including 144 Class 1 modifications (the least significant), 41 Class 2s, and five Class 3s. In addition, there have been three DEQ-initiated Permit Modifications. The Department is currently processing several permit modifications, including work on surrogate trial burn plans for the Deactivation Furnace System and the Metal Parts Furnace. We anticipate the first agent trial burn plan will be received within a week.

In July 2002 the Commission directed the Department to prepare a permit modification to address the operations of the Brine Reduction Area and the off-site shipment of liquid wastes. The Department prepared the Permit Modification and opened the public comment period on November 1, 2002. When the public comment period closed on December 23, 2002 the Department had received a total of 10 written and oral comments – three supported the permit modification and seven were opposed to it. Copies of all comments received were transmitted to the Commission on January 17, 2003. The Department is scheduled to bring this Permit Modification before the Commission at the July meeting.

Umatilla Chemical Demilitarization Program Website: Thanks to Ann Mayes in Hermiston and Jeni Cram in Headquarters, the Umatilla Chemical Demilitarization Program website is back up and running. We took the website offline in response to security concerns after the 9-11 attacks. The website can be accessed through DEQ's website. The address is http://www.deq.state.or.us/umatilla/index.htm. We invite you to take a look and email us with your questions and comments. Ann has been doing numerous presentations to local groups in Hermiston, including City Councils, high schools, and local civic groups. Last weekend Ann attended two Cinco de Mayo festivals to provide information to the Hispanic community. We will continue to engage in a proactive public information campaign in the months leading up to agent operations.

Surrogate Trial Burns:
Liquid Incinerator #1 (LIC1)
The surrogate trial burn of LIC1 was completed on February 8, 2003. Twelve tests were conducted over a 12-day period, under three different operating conditions. Eight of the tests involved spiking metals into a surrogate mixture of perchloroethylene and trichlorobenzene.

Four of the tests were conducted with a surrogate-only feed. The Department expects to receive the LIC1 surrogate trial burn report within the next week. The total time from start of surrogate shakedown activities on July 30, 2002 to the completion of the trial burn in February was just over six months.

Deactivation Furnace System (DFS)
The surrogate shakedown phase of the DFS began on February 11, 2003. The Permittees are conducting DFS shakedown testing using the surrogates monochlorobenzene and hexachloroethane. On March 29, UMCDF conducted a preliminary test using the surrogates and ten spiked metals. Results of that test showed exceedances of permitted limits for particulates and five of the metals. The Department issued a stop hazardous waste feed order on April 4. An investigation of the system by UMCDF indicated that bypassing of the filter units inside the Demister vessel (one component of the Pollution Abatement System) was the source of the excess emissions.

After replacement of the filter units with new, factory-assembled filters, restart was authorized on April 28 and another mini-burn was conducted shortly afterward to assess the effectiveness of the repairs to the Demister system. The test was halted at the mid-point due to operational problems indicated by excessive build-up of particulates on the filter in the sample train. Analysis of the samples collected during this partial run indicated emissions of very small particulates and nickel in excess of permit limits. The Permittees believe that the high chlorine content of the surrogate feed is resulting in a chemical reaction allowing highly soluble nickel chloride to pass through the Demister with the water in the gas stream, resulting in the observed results for particulates and nickel. Further investigations are underway to assess the source of the particulates and to evaluate the impact of reducing the chlorine content of the surrogate mix.

Legal Proceedings: The appeals known as "GASP I" and "GASP II" continue to move slowly through the appellate system. Another three weeks of trial time was completed in GASP III in late March and early April. The trial is set to resume on August 11 and we anticipate another two to three weeks of testimony and closing arguments. A decision on GASP III could come by the end of the year.

Other Topics of interest: The annual emergency exercise of the Chemical Stockpile Emergency Preparedness Program (CSEPP) is scheduled for June 3 and a meeting of the Governor's Executive Review Panel will probably be held in mid-July to review the results of the exercise.

The Department is preparing the process that we will follow for the EQC's decision on whether to approve the start of agent operations. Agent operations are not expected to begin before December. We will discuss the agent start-up approval process in more detail at your July meeting. In July we will also be briefing you on the Post Trial Burn Health Risk Assessment Protocol that the Department will be releasing for public comment this summer. The Department has assembled a Technical Workgroup (including members from EPA and several state agencies from Oregon and Washington) to assist with the drafting of the Protocol.

Status of other Chemical Demilitarization Sites

The **Johnston Atoll Chemical Agent Disposal System** (JACADS) has completed destruction of its chemical weapons stockpile and is now going through a closure process supervised by the EPA. The Metal Parts Furnace is the last operating furnace and is being used to process secondary wastes as the facility is dismantled. The Metal Parts Furnace is expected to be shut down later this month. Closure activities at JACADS should be completed by early 2004.

The **Tooele Chemical Agent Disposal Facility** (TOCDF) in Utah completed the processing of all GB chemical agent last year. The facility was decontaminated and re-tooled and began VX agent destruction on March 28, 2003, but shut down for several days in mid-April when a chemical reaction occurred in an agent storage tank. The facility was re-started soon after using a stand-by agent tank, but shut down again on May 3 to evaluate and correct the cause of VX migration into an observation corridor. A total of 1200 VX M-55 rockets have been processed through the Deactivation Furnace System.

The **Anniston Chemical Agent Disposal Facility** (ANCDF) in Alabama has completed surrogate trial burns on its three furnaces, although all of the trial burn reports have not yet been submitted to the state. The Alabama Department of Environment does not expect that agent operations will begin until there is resolution of the issues related to the emergency preparedness of the communities around the facility.

The **Aberdeen Chemical Agent Disposal Facility** (ABCDF) in Maryland started the neutralization process of its mustard ton containers on April 23, 2003. Aberdeen is using the "speedy neut" process where the ton containers are manually drained of liquid agent by workers wearing protective suits. The liquid agent is transferred to a storage tank and the ton containers are put back into storage to be decontaminated at a later date. The liquid agent is then mixed with hot water and the resulting hydrolysate will be shipped to a treatment facility in New Jersey. The first two ton containers were successfully drained of liquid agent, but the facility encountered difficulty in decontaminating the exterior of the containers so they could be put back into storage. The containers moved into the facility on April 23 are still there and the drained agent has not yet been neutralized. The Ton Container Cleanout Facility is under construction.

Construction of the **Newport Chemical Agent Disposal Facility** in Indiana is about 70% complete. The Newport facility is also going to use a form of "accelerated" neutralization to process its VX ton containers. However, the Army's plan to transport the hydrolysate from the neutralization process to a commercial wastewater treatment facility in Ohio has run into stiff opposition from the local community in Ohio.

The **Pine Bluff Chemical Agent Disposal Facility** in Arkansas has completed construction of its incineration facility and is undergoing systemization testing at this time. The **Pueblo, Colorado** facility had planned to use neutralization followed by bio-degradation for its stockpile of mustard-filled munitions, but is now considering accelerating the process by shipping the hydrolysate off-site. The **Blue Grass, Kentucky** facility will be a full-scale pilot facility using neutralization followed by Supercritical Water Oxidation for treatment of its stockpile. The Pueblo and Blue Grass facilities have not yet started construction.

03-1307

State of Oregon
Department of
Environmental
Quality

Umatilla Chemical Demilitarization Program
Status Update
Environmental Quality Commission
July 18, 2003

(Agenda Item D)

Umatilla Chemical Demilitarization Program

Permit Modifications: The Department is currently processing 17 Hazardous Waste Permit (HW Permit) Modification Requests, including 11 Class 1 and six Class 2 modifications. The Class 2 modifications include:

- The proposed Liquid Incinerator #1 GB Agent Trial Burn Plan;
- A request to use the Unpack Area in the Container Handling Building to process leaking munitions. The current process calls for using the Toxic Maintenance Area in the Munitions Demilitarization Building to handle any transport containers arriving from the storage area with leaking munitions inside;
- A request to change how the pollution abatement system carbon filters are monitored for agent;
- The proposed Performance Test for the Brine Reduction Area ;
- A request to revise the management practices in the agent collection tank system; and
- A request to install a permanent tanker load-out station for off-site shipments of liquid brine from the pollution abatement systems (in lieu of processing in the Brine Reduction Area).

Staff departure: Ann Mayes, our public information officer, has left DEQ and the Hermiston area to return to Florida. We wish Ann the best of luck in her new endeavors. We will be posting a state-wide recruitment later this month to fill Ann's position as quickly as possible. In the mean time, we appreciate the offers of assistance from Nina DeConcini and the Headquarters staff to help us with public information needs that arise in the interim.

Umatilla Chemical Depot Draft Storage Permit: The Umatilla Depot has been operating as a RCRA "interim status" facility since 1980. On July 14 the Department issued a Draft Hazardous Waste Storage Permit that will be open for public comment until September 15, 2003. I would like to thank Nick Speed of the Hermiston staff for his outstanding efforts in reviewing the Depot's Part B Permit Application, drafting the storage permit, and preparing the associated public documents.

UMCDF Surrogate Shakedown and Trial Burn Status

Liquid Incinerators: The surrogate trial burn of Liquid Incinerator #1 (LIC1) was completed on February 8, 2003. The Department is reviewing the LIC1 Trial Burn Report (submitted on May 8, 2003) and expects to issue a letter within the next few weeks requesting additional information and clarification. The Surrogate Trial Burn Report must be approved by the Department prior to the introduction of chemical agent into the furnace. Liquid Incinerator #2 (LIC2) has completed some shakedown activities. Both liquid incinerators are currently shut down.

Metal Parts Furnace: UMCDF started surrogate waste feed for the first time to the Metal Parts Furnace (MPF) on Thursday, July 17, 2003.

Deactivation Furnace System: The surrogate shakedown phase of the Deactivation Furnace System (DFS) began on February 11, 2003. Surrogate testing activities have shown that UMCDF is at times exceeding some of the metal emission limits mandated by the HW Permit and the Maximum Achievable Control Technology (MACT) rules. The Department issued an order to the UMCDF Permittees to stop hazardous waste feed to the DFS on April 4, 2003. Resumption of waste feed was allowed on April 28. Subsequent testing showed that some metals limits were again being exceeded and the Department issued another "stop feed" letter on June 24. The letter listed three key issues that the Department believes must be resolved before it will authorize re-start of hazardous waste feed to the DFS:

- "Assurances that the planned surrogate feed mixture, including metals feed quantities, is an accurate representation of the projected agent munition feed characteristics;
- "A reasonable and defensible explanation for the continued (and sometimes puzzling and inconsistent) metal emissions problems from the UMCDF, including those that occur during non-hazardous waste feed situations; and
- "A clearly defined and agreed upon strategy to resolve the ongoing compliance issues associated with metals emissions and allow the Permittees to proceed with surrogate testing of the furnaces in a manner that supports chemical agent operations."

The Department expected a submittal from UMCDF this week to address the information required in the first two bullets listed above. The third bullet calls for the Department and UMCDF to agree upon a strategy that allows DFS testing to proceed even though some emission limits are being exceeded. It appears that the only way to keep some DFS metal emissions within the limits, as measured before the carbon filter system, is to limit the waste feed rate to a level that could ultimately restrict the processing of M-55 rockets to less than 10/hour. Although rarely achieved, the permitted processing rate for M-55 rockets at UMCDF is 40/hour.

The Permittees recently submitted a letter pointing out minor language differences (yet significant to the interpretation) between analogous permit conditions in the HW Permit modules governing shakedown and trial burns (Module VI) and "normal [agent] operations" (Module VII). Discussion with Brett McKnight, the DEQ Manager of the Umatilla program when the HW Permit was first drafted, indicates that the Department expected that some of the emission limits in Module VI would be exceeded during surrogate testing and trial burns. Both Modules VI and VII require the Permittees to immediately notify the Department if there are exceedances. However, in the case of surrogate testing operations, the Department did not originally intend that exceedances would be considered permit violations (provided that the exceedances were not of a level that would pose a threat to human health and the environment).

As noted earlier, UMCDF must demonstrate compliance with HW Permit emission limits at a point before the flue gas stream enters the pollution abatement system carbon filter systems (PFS). Test results indicate that the DFS (at a reduced feed rate) could meet both MACT and RCRA emission limits if UMCDF was able to "take credit" for the PFS by moving the compliance point to after the carbon filters. However, the HW Permit condition that requires UMCDF furnaces meet emission limits prior to entering the PFS was specifically required by the Commission when it approved the UMCDF HW Permit in 1997. The Department believes that changing the requirement would be a major permit modification requiring Commission approval—a process that could take seven to eight months.

The MACT standards were promulgated several years after the UMCDF Permit was issued and are more stringent than previous emission limits. Consequently, the Department believes it is appropriate for UMCDF to take credit for the PFS for the purposes of demonstrating compliance with MACT and that no permit modifications would be needed.

The emission limits in the UMCDF HW Permit were originally calculated by extrapolating emissions data from tests done at the Johnston Atoll facility, and were fully expected to be revised once on-site data could be generated. The dilemma this situation is posing for both the Department and the Permittees is that new emission limits cannot be proposed and evaluated for risk until the DFS testing and trial burn phase is completed. Consequently, to operate the DFS at a surrogate and metals feed rate equivalent to the desired rocket feed rate means that UMCDF must continue to notify the Department every time an exceedance is noted, and provide information to show that the exceedance was not a health or environmental threat. The Department does not believe that the exceedances seen during DFS testing to date posed any threat to human health or the environment, especially considering the short duration of the tests and the fact that the flue gases are cleaned further by the carbon filtration system before release to the atmosphere.

The Department and the Permittees continue to have discussions about the path forward for both the DFS specifically, and the start of chemical agent operations generally. It appears that even if UMCDF "takes credit" for the PFS when demonstrating compliance with the MACT standards, and HW Permit emission limits are eventually revised upward, processing of M-55 rockets in the DFS will still be limited to a rate below what was originally anticipated. The first GB "rocket campaign" will be treating over 91,000 rockets in the DFS, approximately 3000 of which are thought to contain gelled GB agent.

Other Topics of Interest

CSEPP: The annual emergency exercise of the Chemical Stockpile Emergency Preparedness Program (CSEPP) was held on June 3 and by most accounts was a success. The Governor is expected to request that the CSEPP Executive Review Panel be re-convened on August 21 to go over the results of the test exercise and provide an update to the Governor's office on the CSEPP readiness status.

"GASP," the local Hermiston organization, recently sent a letter to Governor Kulongoski requesting an "investigation into the [CSEPP] and its continued fulfillment of U.S. Army Hazardous Waste Permit Requirements." After then-Governor Kitzhaber informed the Commission in 2002 that he had determined that "an adequate emergency response program is in place and fully operational," the only remaining HW Permit condition related to CSEPP is one that requires semi-annual updates be sent to the Department. To our knowledge the Governor's office has not yet responded to the letter.

State of Oregon
Department of
Environmental
Quality

03-1629

Umatilla Chemical Demilitarization Program
Status Update
Environmental Quality Commission
August 15, 2003

(Agenda Item D)

Umatilla Chemical Demilitarization Program

Permit Modifications: The Department is currently processing 19 Hazardous Waste Permit Modification Requests, including 11 Class 1 and eight (8) Class 2 modifications.

Staff News: The permit coordinator position was posted on July 22 for applications only from existing state employees. The application period closed on August 5 with no applicants. We are reposting it as an "open competitive" announcement from August 15 until September 3. Ads for the position will run in the Sunday, August 17 editions of the East Oregonian and the Tri-City Herald.

We will also be filling our vacant Natural Resource Specialist 4 position to provide technical support for review of permit modification requests in the short term, with the position transitioning to compliance support as we move closer to agent operations.

Umatilla Chemical Depot Draft Storage Permit: The public hearing on the Draft Hazardous Waste Storage Permit for the Depot will be held on August 28, with the public comment period ending on September 15, 2003.

UMCDF Surrogate Shakedown and Trial Burn Status

Deactivation Furnace System (DFS): On August 5, 2003 the Department authorized the UMCDF Permittees to resume hazardous waste feed to the DFS. This was based upon the submittal of materials by the Permittees that resolved all of the key issues identified in the Department's stop feed letter issued on June 24, 2003. The Permittees have indicated a desire to begin the Surrogate Trial Burn for the DFS on August 21.

Metal Parts Furnace (MPF): On August 11, 2003, the Permittees notified the Department that the carbon filters on the MPF had been bypassed during shakedown activities for the furnace. Subsequent examination of UMCDF records by staff of the Department indicated that the carbon filters had been bypassed throughout the three week period that UMCDF had been conducting shakedown of the MPF. The Surrogate Trial Burn Plan allows the Permittees to bypass the carbon filters during the MPF trial burn, because it is necessary to do so in order to sample the emissions prior to the

carbon filters, as currently specified in the permit. However, this does not allow the carbon filters to be bypassed during routine shakedown activities.

Preliminarily, the Permittees have verbally reported to the Department that this mistake occurred due to communication breakdowns and inadequate training that will be corrected. UMCDF voluntarily shut down both the MPF and the DFS, pending their further investigation of this situation. The Department will be issuing a notice of non-compliance to the Permittees the week of August 18, 2003, including a requirement to stop further feed of hazardous waste until a written report is provided to the Department responding to an extensive list of questions regarding the particulars of how this situation occurred and what actions will be taken to prevent its recurrence. This case will also be referred to Headquarters for formal enforcement action.

Other Topics of Interest

Brine Reduction Area (BRA): The site has experienced liner failure problems with the storage tanks of the BRA. A corrosion consultant has evaluated the system and concluded that the failures are the result of several factors: improper cathodic protection, probable improper preparation of the steel tank surfaces prior to application of the liner material, "electrical continuity" between the tank walls and the metal blades of the tank mixers, and abrasion of the liners due to forces created by the mixer blades. DEQ is awaiting further information from the site regarding the corrective actions that will be taken and the schedule for completion of such actions. The site has indicated that liner repairs will be completed by December 1, 2003 and additional improvements (including an upgrade of cathodic protection) are still being evaluated.

CSEPP: The Chemical Stockpile Emergency Preparedness Program (CSEPP) Executive Review Panel is being re-convened on August 21 to review the results of the June 3, 2003 emergency response exercise and provide an update to the Governor's office on the status of CSEPP readiness.

Anniston Chemical Agent Disposal (ANCDF): On July 30, 2003, ANCDF received its final approval from the Alabama Department of Environmental Management to proceed with the destruction of chemical agents. The Army delayed startup of agent operations until an August 8, 2003 hearing could be held on a request for a temporary restraining order/preliminary injunction by the Chemical Weapons Working Group and other local groups opposed to incineration. On August 8, a federal district court judge in Washington, D.C. turned down the petitioners' requests, allowing ANCDF to begin agent operations. The facility successfully processed two GB rockets on August 9, 2003.

According to newspaper reports, Anniston resumed operations on August 14, 2003 following two days of shutdown to repair a problem with a motor in the cooling system for the carbon filters and to repair a leak in a hydraulic fluid line connected to the blade that shears the rockets into pieces that are subsequently fed into the deactivation furnace. The Army hoped to process 15 or more rockets on August 14.

Potential Worker Exposure at the Umatilla Chemical Depot: The Depot is awaiting the results of medical tests on a worker at the Depot to determine if he was exposed to Mustard agent during his participation on a decontamination team for a leaking one-ton Mustard container detected in igloo #1708 on July 22, 2003. The worker exhibited a small blister on his arm within approximately 24 - 48 hours of his August 7, 2003 activities at the igloo. Since this individual was not involved in direct contact with any Mustard containers and the agent monitoring at the igloo indicated no agent release coincident with his activities, the site does not expect the results to verify any agent exposure. However, Depot procedures provide the opportunity for any worker to have testing performed to evaluate potential exposures to chemical agent.

GASP III: The GASP III trial resumed in Judge Michael Marcus' courtroom in Multnomah County Circuit Court on August 11, 2003. It is likely that closing arguments may be heard on August 15, 2003, providing for a possible decision by Judge Marcus prior to the end of this year.

State of Oregon
Department of
Environmental
Quality

Umatilla Chemical Demilitarization Program
Status Update
Environmental Quality Commission
October 10, 2003
(Agenda Item H)

Umatilla Chemical Demilitarization Program (CDP)

Permit Modification Request:
On September 16 the Umatilla Chemical Agent Disposal Facility (UMCDF) submitted a Permit Modification Request (PMR) to change the point of compliance for its air emissions from the inlet to the carbon filters to the exit of the carbon filters. A copy of this Class 3 PMR has been provided to each of the EQC members with an anticipated schedule for public comment and final action by the EQC.

Umatilla Chemical Depot (UMCD) Draft Storage Permit:
Based upon a request from GASP for a 120 day extension, a 30 day extension was granted on the public comment period for the UMCD Draft Storage Permit. The comment period now ends on October 15, 2003. The only comments received to date have been oral comments made by a representative of Morrow County at the August 28, 2003 public hearing.

Closure Plan for Building 659 (Mustard Shed) at UMCD:
On September 3 a closure plan was submitted by UMCD for Building 659, the former "mustard shed," previously used for storage of one-ton containers of mustard agent. Following the events of September 11, 2001, all mustard containers were moved into igloos. UMCD intends to close out the building as a hazardous waste management unit and reuse it to park empty Enhanced On-site Containers (EONCs) out of the weather. A public hearing regarding the closure plan will be held on October 15 and the public comment period ends on October 20, 2003.

Staff Recruitment:
We are very pleased to report that Shelly Ingram has accepted the position of Permit Coordinator/Public Information Representative 1 position with the CDP staff. Shelly is presently a reporter with the East Oregonian and has covered CSEPP and Depot activities. She will begin the position on November 3, 2003.

The vacant Senior Hazardous Waste Specialist position with the CDP has been posted with an October 22 deadline for applications. Ads were run in the Sunday, October 5, editions of the Oregonian and Tri-City Herald. In addition to the DEQ website, the position announcement has been posted on the Air & Waste Management Association website and

has been shared with the Chemical Demilitarization Workgroup, our counterparts with the other seven states who have chemical depots.

Federal Fiscal Year 2004 Funding:
The Army has informed us that full funding for DEQ's oversight activities at UMCDF for federal fiscal year 2004 should be available by the end of October. Based upon our anticipated carryover of unexpended funds from 2003, this would avoid any gaps in federal funding necessary to support DEQ's Umatilla activities.

Meeting with U.S. Senator Gordon Smith's Staff:
On September 17 Dennis Murphey and Sue Oliver met with three members of Senator Smith's staff in his Pendleton office: James Nelson, Legislative Assistant from Washington, D.C.; Richard Krikava, Field Representative in Portland; and Larry Bartee, Field Representative in Pendleton. Mr. Nelson is Senator Smith's new primary liaison for the Umatilla project and he toured UMCD and UMCDF for the first time. The meeting provided an opportunity for the three staff members to hear from DEQ regarding the status of the project and Mr. Nelson assured us that Senator Smith will work hard to ensure full funding of the demilitarization program in the Army's budget for FFY 2005.

Surrogate Trial Burn (STB) Status

The STB for the Deactivation Furnace System (DFS) began on September 27, 2003. UMCDF completed the four Low Temperature Test runs on September 30. The STB also includes three sets of High Temperature Tests (HTT) with four runs each. The four runs of the first HTT were completed on October 5.

UMCDF hopes to begin the STB for the Metal Parts Furnace approximately three weeks after completion of the DFS STB.

Other Topics of interest

Legal Proceedings
Courtroom proceedings in the GASP III trial concluded on August 15, 2003. On September 19 (three days before their closing brief was due) the Petitioners submitted a "Motion for Sanctions" against the Army's attorney for intimidation of one of their witnesses, a monitoring technician from CAMDS in Utah. The relief requested by the Petitioners includes: 1) a protective order for the witness, preventing the Army from taking any adverse action against him, 2) a delay in submittal of written closing arguments in GASP III until a decision is rendered on the Motion for Sanctions, 3) a partial default against the Army, revoking the UMCDF permit until "monitoring defects" identified by the witness have been remedied and an additional requirement for the use of FTIR monitors has been included in the permit, and 4) payment of Petitioners' attorney fees and expenses by the Army. The hearing for oral arguments on the Motion for Sanctions has been scheduled for December 11, 2003. The briefing schedule for written closing arguments has been tolled until Judge Marcus rules on the Motion for Sanctions.

In addition to the issues specifically identified by the Petitioners in their original filing, Judge Marcus has requested that the legal counsel for all parties address the issue of agent monitoring (in the exhaust stack, in the workplace, and in the ambient air at the perimeter of the site). It now appears likely that no decision on GASP III will be issued until mid-2004, at the earliest.

CSEPP/ERP

On August 21, 2003 the 20-member Executive Review Panel (ERP) reconvened at Governor Kulongoski's request to assess the current status of the local emergency response program to protect the general population in the vicinity of UMCD in the event of a release of chemical agent. Commissioner Hampton represented EQC on the ERP and Director Hallock represented the DEQ. The ERP heard presentations regarding the results of the June 3, 2003 Annual CSEPP Exercise, the status of the 450 MHz tactical radio system, the evacuation project for Hermiston, and recent results of a survey to assess awareness of local citizens regarding emergency response procedures.

On September 19 the ERP sent a report to Governor Kulongoski, signed by all of the ERP members, with one exception: Umatilla County. Umatilla County took exception to the following portion of the report: "It was explained at the August 21 ERP meeting that the final decision to authorize start of agent operations lies with the EQC. In the event that the EQC has to make that decision before the 450 MHz system is completely in place, it is anticipated that the first responders and other members of the ERP will request the EQC postpone authorizing the start of agent operations until the radio system is entirely completed." Umatilla County's position is that "agent incineration should begin at the earliest possible time; and that start-up should not be delayed, even if the 450 MHz system is not completed."

Notwithstanding the concerns regarding the 450 MHz system, the ERP report concludes that most of the emergency response capabilities have improved measurably over the past 15 months. It also concluded that the Umatilla CSEPP continues to meet the adequacy standard required by the UMCDF hazardous waste permit. A copy of the full text of the ERP report to the Governor, with the dissenting letter from Umatilla County, is included with this update.

Potential Worker Exposure at the Umatilla Chemical Depot

In the August 15 status update to EQC we noted a potential exposure to mustard agent by a worker at UMCD. The individual had been a member of a decontamination team for a leaking container of mustard agent in one of the igloos at UMCD. All medical tests showed no indications of exposure to chemical agent by the worker who had exhibited a small blister on his arm.

Status of other Chemical Demilitarization Sites

The Tooele Chemical Agent Disposal Facility (**TOCDF**) in Utah just completed a month-long shutdown due to results of a PCB emissions test that did not meet the required 99.9999% destruction efficiency. TOCDF believes it was a laboratory contamination issue, since PCBs were also detected during fuel-only runs and in field blanks of the sampling trains. TOCDF has only 1,000 VX rockets remaining and it looks like they will all be destroyed during additional PCB emissions tests that are being required by the EPA to

demonstrate PCB destruction efficiency. (EPA would not agree to correct the test results fror the blank contamination.)

The Anniston Chemical Agent Disposal Facility (**ANCDF**) in Alabama has processed approximately 4,000 GB rockets as of two weeks ago. They are having many mechanical problems, according to the Alabama Department of Environmental Management (ADEM), especially with the rocket lines (which, according to UDEQ have been high maintenance units at TOCDF also). ADEM expects ANCDF to initiate their GB agent trial burns for the liquid incinerator and the deactivation furnace system on or about November 6 – 7.

The Pine Bluff Chemical Agent Disposal Facility (**PBCDF**) in Arkansas is curing the refractory in their deactivation furnace.

The Aberdeen Chemical Agent Disposal Facility (**ABCDF**) in Maryland has been shut down since August 16 when a fire occurred in the carbon filter on a vent line of a decontamination solution tank. They continue to have problems in "clearing" the exterior of the ton containers after they drain them. They are detecting agent on the exterior of the tanks and believe it is related to agent in the threads and agent penetrating under the paint on the exterior of the containers. After implementing design changes and facility modifications, the facility hopes to restart slowly by mid-October and be back to normal operations by mid-November.

The Newport Chemical Agent Disposal Facility (**NECDF**) in Indiana has been delayed by analytical problems that have interfered with their ability to demonstrate adequate destruction efficiency and by local opposition to the treatment of their hydrolysate at the Perma-Fix facility near Dayton, OH. It appears they will build a tank farm to store the hydrolysate in anticipation of starting neutralization next spring.

The Pueblo Chemical Agent Disposal Facility (**PUCDF**) in Colorado is being designed by Bechtel. The Colorado Department of Public Health and the Environment (CDPHE) anticipates submittal of a Phase I permit (that will merely address site grading) in November or December. An issue is arising with the Sierra Club and local members of the public who want to attend all meetings with PUCDF and the CDPHE.

The Blue Grass Chemical Agent Disposal Facility (**BGCDF**) in Kentucky is approximately two months behind PUCDF and recently held their permit kickoff meeting, a community forum, and a team building partnership meeting.

State of Oregon
Department of
Environmental
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Umatilla Chemical Demilitarization Program
Status Update
Environmental Quality Commission
December 5, 2003
(Agenda Item I)

Umatilla Chemical Demilitarization Program (CDP)

Permit Modification Requests:

"Taking Credit" for the Carbon Filters

On September 16, 2003 the Umatilla Chemical Agent Disposal Facility (UMCDF) submitted a Class 3 Permit Modification Request (PMR) to change the point of compliance for its air emissions from the inlet of the carbon filters to the exit of the carbon filters. The initial public comment period ran from September 16 through November 17 and on October 21, the Permittees held a public informational meeting. On November 5 the Department issued a Notice of Deficiency (NOD) to the Permittees and a response to the NOD was received on December 1. The Department received eight sets of comments from various stakeholders. In sum, four commenters (GASP, Sierra Club, Stuart Dick, and Stephen McFadden) objected to the proposed change and four commenters supported the change (Umatilla County, Confederated Tribes of the Umatilla Indian Reservation, City of Hermiston, and the Hermiston Development Corporation).

The Department will be preparing draft permit language, fact sheets, and a notice of public hearing in anticipation of conducting the second public comment period from mid-December until mid-February. This will allow oral public comments to be presented to the EQC at its regularly scheduled meeting on February 6, 2004. A public hearing will also be held by the Department (most likely in late January, 2004). The Department hopes to be able to provide its recommendation to the EQC in a time frame that would allow a decision on the PMR at the regularly scheduled EQC meeting on April 9, 2004.

Processing Leakers in the Unpack Area

On November 10, 2003 the Department denied UMCDF's PMR which proposed processing Enhanced On-Site Containers (EONCs)(the transport containers) and Spray Tank Overpacks containing leaking munitions and bulk items in the Container Handling Building Unpack Area. The Hazardous Waste Permit currently requires all EONCs and spray tank overpacks containing leaking munitions and bulk items to be processed through the Toxic Maintenance Area (TMA). UMCDF claimed that the proposed changes would provide operational flexibility to the facility and lessen operational delays associated with processing such materials in the TMA. The Department's review determined that the PMR was incomplete

and UMCDF failed to provide sufficient documentation to fully support the proposed changes.

Other PMRs Under Review

- PFS (Carbon Filtration System) Agent Monitors

This PMR establishes exactly how UMCDF will monitor for chemical agents in the PFS carbon beds and how much absorptive capacity remains before a carbon change-out is needed.

- UMCD Secondary Waste

This PMR incorporates the remaining Depot secondary waste streams into the UMCDF hazardous waste permit and establishes feed rates for each waste stream.

- BRA (Brine Reduction Area) Performance Test Plan
- LIC1 (Liquid Incinerator # 1) GB Agent Trial Burn Plan

Agent Operations Authorization Process/Time Frame

The Army has revised its anticipated schedule for the start of agent operations and now hopes to be prepared to begin agent destruction in early summer 2004. UMCDF plans to complete its Operational Readiness Review by the end of February. This would allow the Department to conduct its compliance assessment and initiate the public comment period in the spring. A special EQC meeting may need to be held in late April or early May in Hermiston to serve as a public hearing for the EQC to receive input regarding the authorization of agent operations.

Umatilla Chemical Depot (UMCD) Storage Permit:

The public comment period for the UMCD Draft Storage Permit ended on October 15, 2003. Several sets of comments were received and the Department is currently reviewing the comments and preparing a responsiveness summary in anticipation of reaching a decision on the permit in early 2004.

Closure Plan for Building 659 (Mustard Shed) at UMCD:

A public hearing on the closure plan for Building 659, the former "mustard shed" at UMCD previously used for storage of one-ton containers of mustard agent, was held on October 15, 2003. The public comment period ended on October 20, 2003 and no comments were received. The Department issued its approval of the closure plan on December 3.

Surrogate Trial Burn (STB) Status

Deactivation Furnace System

The STB for the Deactivation Furnace System (DFS) was completed on October 13, 2003. The results were a mixture of good news and disappointing news. With regard to the organic compounds that serve as surrogates for chemical agent, UMCDF had no detectable levels of these surrogates in the samples of their emissions. Therefore, it appears that UMCDF achieved the surrogate destruction and removal efficiency requirements for the Low Temperature Test runs.

The preliminary data for the metals emissions were a different situation. UMCDF spiked metals and conducted three different sets of high temperature tests.

- With the carbon filters off-line and a metal spiking rate intended to be representative of a 2 rocket/hour feedrate, the results were in compliance with the federal Maximum Achievable Control Technology (MACT) standards, but hazardous waste (HW) permit limits were exceeded for 3 of the 10 metals sampled.
- With the carbon filters off-line and a metal spiking rate intended to be representative of a 7.5 rocket/hour feedrate, the results exceeded one of the MACT standards and exceeded HW permit limits for four metals.
- With the carbon filters on-line and a metal spiking rate intended to be representative of a feedrate of approximately 40 drained rockets/hour or 24 undrained rockets/hour, the results were in compliance with all HW permit limits and MACT standards and data from all metals were well below the permitted limits.

Final data will be provided to the Department in the Surrogate Trial Burn Report, expected in the next few days. UMCDF has inspected the furnace and the pollution abatement system on the DFS, but has not apparently found anything conclusive that would explain the higher than expected emissions of the four metals. The results of their investigation will be included in the trial burn report and the Department will be reviewing them very closely.

Metal Parts Furnace (MPF)
UMCDF plans to begin the STB for the Metal Parts Furnace in the next two weeks, conducting a set of high temperature test runs from December 19 through December 22. The site expects to resume the STB runs on December 29 and conclude them by January 5.

Liquid Incinerator 2 (LIC2)
UMCDF plans to conduct the STB for the LIC2 in early 2004.

Brine Reduction Area (BRA)
UMCDF hopes to begin shakedown of the BRA in January 2004. The Department is reviewing a PMR that is needed. The BRA Performance Test is currently planned for Spring 2004.

Other Topics of interest

Legal Proceedings
In the GASP III trial, the hearing for oral arguments on the Petitioner's Motion for Sanctions against the U.S. Department of Justice attorney has been postponed until January. The briefing schedule for written closing arguments has been tolled until Judge Marcus rules on the Motion for Sanctions. Therefore, the time frame for a decision in the GASP litigation remains uncertain, but is unlikely before late spring or early summer 2004.

Health Risk Assessment Work Plan
The Public Review Draft of the Post Trial Burn Risk Assessment Work Plan was issued for public comment on October 17, 2003. A public meeting and hearing were held in Hermiston

on November 19 and the comment period closed on December 1. The Department received four sets of comments and will be working with the Technical Workgroup to resolve the comments and finalize the Work Plan by February, 2004.

Status of other Chemical Demilitarization Sites
The Tooele Chemical Agent Disposal Facility (**TOCDF**) in Utah has completed its destruction of all VX rockets.

The Anniston Chemical Agent Disposal Facility (**ANCDF**) in Alabama has processed more than 10,000 GB rockets and has recently completed its GB Agent Trial Burn for the liquid incinerator and the deactivation furnace system.

The Pine Bluff Chemical Agent Disposal Facility (**PBCDF**) in Arkansas recently completed the surrogate trial burn for their deactivation furnace system.

The Aberdeen Chemical Agent Disposal Facility (**ABCDF**) in Maryland continues to have operational problems that have repeatedly shut down the process, significantly decreasing the expected production rates.

The Newport Chemical Agent Disposal Facility (**NECDF**) in Indiana has canceled its contract with the Perma-Fix facility near Dayton, Ohio for treatment of hydrolysate from neutralization of chemical agent at NECDF. Due to concerns regarding the treatment process, the Montgomery County Ohio wastewater treatment plant would not grant Perma-Fix a permit to discharge wastewater from treatment of chemical agent hydrolysate. It appears NECDF will build a tank farm to store the hydrolysate until a viable means of processing it is available.

The Pueblo Chemical Agent Disposal Facility (**PUCDF**) in Colorado is a neutralization facility being designed by Bechtel. The Colorado Department of Public Health and the Environment (CDPHE) will utilize an RD&D (research, development, and demonstration) permit process for PUCDF, prior to making a decision upon issuing a final hazardous waste storage and treatment permit.

The Blue Grass Chemical Agent Disposal Facility (**BGCDF**) in Kentucky is approximately two months behind PUCDF and will likely utilize an RD&D permit process as well.

Fact Sheet

Umatilla Chemical Demilitarization Program

Oregon's Chemical Weapons Stockpile

In 1962, the U.S. Army began storage of chemical weapons at the Umatilla Chemical Depot, located near the town of Hermiston, Oregon. Today the Depot has a stockpile of 3,717 tons of chemical warfare agent in about 220,000 individual munitions, such as rockets and land mines, as well as bulk containers. Chemical agents include the nerve agents GB (also called "sarin") and VX, and the blister agent HD, known as "mustard." All U.S. chemical weapon stockpiles must be destroyed under the international treaty known as the "Chemical Weapons Convention."

After intense and prolonged public debate, the Environmental Quality Commission (EQC) granted a Hazardous Waste Storage and Treatment Permit to the Army in February 1997. The Army awarded the Umatilla contract to the Washington Demilitarization Company (formerly Raytheon) and construction of the Umatilla Chemical Agent Disposal Facility was declared complete in August 2001. UMCDF is currently undergoing extensive testing of its systems and furnaces in preparation for live chemical agent operations.

U.S. Army's National Chemical Demilitarization Program

The Army's Chemical Materials Agency is responsible for safely disposing of the nation's chemical weapons stockpiles. The Army built a prototype incineration facility at Johnston Atoll located approximately 750 miles from Hawaii and started operations there in 1990. The stockpile at Johnston Atoll and all leftover process waste has since been destroyed.

Umatilla is one of eight chemical weapons stockpile sites in the continental U.S. Four of the sites will use incineration as the agent disposal method and four will use a neutralization process. The first continental U.S. incinerator was constructed near Tooele, Utah and began operations in 1996. To date, Tooele has destroyed all GB nerve agent in its inventory and is currently destroying munitions containing VX nerve agent.

The stockpiles in Anniston, Alabama; Pine Bluff, Arkansas; and Umatilla, Oregon will also use incineration. Anniston began operations in 2003. The Umatilla and Pine Bluff facilities are still undergoing testing.

The stockpiles in Aberdeen, Maryland; Newport, Indiana; Pueblo, Colorado; and Blue Grass, Kentucky will be destroyed using neutralization. The Aberdeen facility began operations in April, 2003. The remaining neutralization facilities are still in the engineering or construction phases.

DEQ's Role in Program Oversight

DEQ's Chemical Demilitarization Program (CDP) oversees the day-to-day operation of the Umatilla Chemical Agent Disposal Facility (UMCDF). CDP staff, based in nearby Hermiston, ensures that the Army and its contractor comply with the hazardous waste and air permits issued by the State of the Oregon in 1997. The CDP Administrator reports directly to the DEQ's Office of the Director and manages a staff of hazardous waste compliance and permitting specialists, engineers, and support staff that work solely on the Umatilla project.

Supporting State Agencies in the Program

Oregon Emergency Management (OEM) is the lead state agency for emergency response. OEM works closely with the Umatilla and Morrow County Emergency Management Agencies (and Benton County, Washington). The Oregon Public Health Service supports DEQ and OEM with toxicology expertise for emergency planning and health risk assessments. The U.S. and Oregon Occupational Health and Safety Administrations entered into an agreement to have joint oversight of worker safety issues at the Umatilla Chemical Depot and the Umatilla Chemical Agent Disposal Facility. The Governor's Office has also been actively engaged with issues surrounding the Umatilla facility. The CDP Administrator maintains regular contact with staff from the Office of the Governor.

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DEQ Item No. 03-2313

www.deq.state.or.us

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By: Shelly Ingram

Umatilla Chemical Agent Disposal Facility (UMCDF)

UMCDF consists of two liquid incinerators to treat liquid agent, a "deactivation furnace system" to treat explosives and propellants, and a "metal parts furnace" to treat emptied munitions and other wastes.

Because of the extreme toxicity of the chemical warfare agents, UMCDF must first demonstrate the performance of the incinerators by conducting "shakedown" tests and trial burns using "surrogate" material. Surrogate materials are chemicals that are not as toxic as chemical warfare agent, but are considered more difficult to burn. UMCDF will not be allowed to begin any furnace testing with live chemical agent until surrogate testing has been successful and the EQC has approved start of agent operations. Agent operations are expected to begin in the summer of 2004 and will take approximately seven years. A period to close and dismantle the facility will follow.

Current Status

A series of surrogate trial burns designed to test the furnaces began with the first liquid incinerator (LIC1) surrogate trial burn in February 2003. Results submitted to the DEQ indicate that LIC1 successfully demonstrated compliance with existing air and hazardous waste permit limits. A trial burn of the Deactivation Furnace System (DFS) was completed in October 2003. The results show that the DFS was not able to meet all permit limits under all operating conditions. DEQ is requiring UMCDF to conduct a limited re-test to demonstrate compliance with the existing permit limits. The MPF is scheduled to undergo a surrogate trial burn in early 2004. The surrogate trial burn for the second liquid incinerator will be conducted in early 2004.

A local group called "G.A.S.P." (in conjunction with the Sierra Club, the Oregon Wildlife Federation, and individuals) has filed three lawsuits against the Environmental Quality Commission and the DEQ. The first two cases were administratively decided in the State's favor by the Multnomah County Circuit Court and are currently on appeal with the Oregon Court of Appeals.

A third case ("GASP III") was filed in July 2000 after the Environmental Quality Commission refused to revoke the UMCDF Permit per the request of the GASP Petitioners. GASP III went to a Circuit Court trial on October 23, 2002. The trial phase was completed in August 2003. The parties will file written closing arguments during the spring of 2004.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105). Please call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011), or e-mail at ingram.shelly@deq.state.or.us.

Alternative formats

Alternative formats of this document can be made available. Contact DEQ, Shelly Ingram at (541) 567-8297 ext. 25. People with hearing impairment may call DEQ's TTY at (503) 229-6993.

Related fact sheets available from DEQ:

- Risk Assessment
- Public Participation
- Munitions at the UMCD
- Trial Burn Operations
- Bulk Processing
- Rocket Processing
- Projectile Processing
- Liquid Incinerator
- Metal Parts Furnace
- Pollution Abatement System
- Deactivation Furnace System
- Modifications of Hazardous Waste Permit
- Storage and Management of Hazardous Waste
- Air Emissions Comparison Table and Fast Facts

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Agent	Item-Containerized Storage	Quantity	Pounds
HD (Blister)	Ton Containers	2,635	4,679,040
GB (nerve)	155mm Projectiles	47,406	308,140
	8-inch Projectiles	14,246	206,560
	M55 Rockets	91,375	977,720
	M56 Rocket Warheads	67	720
	500 lb. Bombs	27	2,920
	750 lb. Bombs	2,418	531,960
	ton containers	4	7,104
VX (nerve)	155mm Projectiles	32,313	193,880
	8-inch Projectiles	3,752	54,400
	Mines	11,685	122,700
	M55 Rockets	14,513	145,140
	M56 Rocket Warheads	6	60
	Spray Tanks	156	211,540
	Ton containers	1	1,776
Total		**220,604**	**7,443,660**

Munitions

Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile currently stored at the Umatilla Chemical Depot (UMCD). The disposal facility includes several different types of incinerators at the Umatilla Chemical Depot near Hermiston, Oregon.

Nerve agents (GB and VX) are contained in munitions; rockets, projectiles and land mines, and in large containers; spray tanks, bombs, and "ton"containers.

HD blister agent is a distilled mustard. The liquid is colorless and pure, but is normally a yellow to brown oily substance. HD blister agent vapor is colorless with a slight garlic or mustard like odor.

GB nerve agents are clear, colorless and tasteless liquids and have no odor. VX nerve agent is an oily liquid that is clear, colorless, odorless, and tasteless.

What is the schedule for destruction?

The GB rockets are scheduled to be treated first. The GB rockets are the most volatile of all the munitions and the risk of storage will significantly decrease when all of the GB rockets are treated. The VX rockets and all of the VX munition types are scheduled to be treated second. The remaining GB munitions will be treated after all of the VX munitions have been destroyed. The last group of munition types that are scheduled to be destroyed will be the HD mustard agent ton containers.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

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By Shelly Ingram

MAXIMUM PERMITTED AIR EMISSIONS FROM SELECTED HERMISTON AREA SOURCES

Area Source	Maximum Permitted Air Emissions[1] (Tons/Year)				
	TSP[2]	NO_x[3]	SO_2[4]	CO[5]	VOC[6]
Lamb Weston (Food Processing Facility, Hermiston)	35	80	39	99	39
Umatilla Chemical Agent Disposal Facility (chemical weapons incineration facility) (July 2002 Air Permit)	**45**	**129**	**22**	**55**	**4.8**
Hermiston Generating (natural gas-fired co-generation plant, Hermiston)	64	272	11	447	34
Portland General Electric—Coyote Springs (natural gas-fired co-generation plant, Boardman)	48	287	39	452	26
Portland General Electric (coal-fired power Plant, Tower Road, Boardman)	1,056	12,687	30,450	767	92
"Significant" Emission Rates[7]	**25**	**40**	**40**	**100**	**40**

(1) Emission limits are from the "Plant Site Emission Limits" in each facility's
(2) Air Contaminant Discharge Permit issued by the Oregon DEQ. Note that most sources do not emit pollutants at their maximum permitted rate.

[2] TSP = Total Suspended Particulates
[3] NO_x = Oxides of Nitrogen
[4] SO_2 = Sulfur Dioxide
[5] CO = Carbon Monoxide
[6] VOC = Volatile Organic Compound

[7] "Significant" Emission Rates reflect the pollutant emission levels at which certain regulatory provisions apply, such as requirements for installation of "lowest achievable" or "best available" pollution control technology. The rates given above are for "attainment" areas (areas of the state that are within attainment of air quality goals). Significant Emission Rates for "non-attainment" areas are often established at much lower rates than shown above.

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Last updated: 12/30/03
By Shelly Ingram

How many weapons are stored at the Umatilla Chemical Depot?

Chemical Warfare Agent	Item	Quantity	Pounds
HD (blister)	ton containers	2,635	4,679,040
GB (nerve)	155 mm projectiles	47,406	308,140
	8-inch projectiles	14,246	206,560
	M55 rockets	91,375	977,720
	M56 rocket warheads	67	720
	500 lb. bombs	27	2,920
	750 lb. bombs	2,418	531,960
	ton containers	4	7,104
VX (nerve)	155 mm projectiles	32,313	193,880
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	mines	11,685	122,700
	M55 rockets	14,513	145,140
	M56 rocket warheads	6	60
	Spray tanks	156	211,540
	ton containers	1	1,776

Fast Facts

There are three types of incinerators at the Umatilla Chemical Agent Disposal Facility; two liquid incinerators for disposal of liquid agent, a deactivation furnace to dispose of explosives and propellants as they are disassembled during the process and the metal parts furnace where bomb cases, emptied projectiles and other metal containers are destroyed.

All the chemical agent stored at the Umatilla Chemical Depot is stored in liquid form. Of the three types of agent, the GB (nerve) is considered the most volatile and rockets containing this agent will be incinerated first, followed by the VX munitions, then the blister (called mustard) agent ton containers.

Oregon Department of Environmental Quality's Chemical Demilitarization Program Mission:

"Protect people and the environment by overseeing the safe destruction of the chemical agents at the Umatilla Chemical Depot as soon as possible."

For more information contact : DEQ, Office of Chemical Demilitarization Program, 256 East Hurlburt Avenue, Suite 105, Hermiston, OR 97838 Phone 541-567-8297 1-800-452-4011, Fax 541-567-4741, or *www.deq.state.or.us.*

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Trial Burn Operations

State of Oregon
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Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD). The disposal facility includes three different types of incinerators at the Umatilla Chemical Depot near Hermiston, Oregon.
The Umatilla Chemical Depot stores two nerve agents and a blister agent (called "mustard") in liquid form. All of the chemical warfare agents are highly toxic. The nerve agents (GB and VX) are contained in munitions, such as rockets, projectiles and land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Blister agent (HD - called "mustard") is only stored in ton containers at UMCD.

What is a trial burn?

A trial burn is a test of an incinerator's ability to meet all applicable performance standards when burning a waste under a specific set of operating conditions. Usually, the trial burn conditions are chosen to reflect the most difficult conditions that will be seen during normal operations. The UMCDF trial burns will be designed to provide data that demonstrate the incinerators' capabilities. Because of the extreme toxicity of the chemical warfare agents, UMCDF must first demonstrate the performance of each of the incinerators by conducting a trial burn using "surrogate" materials.

What are surrogate materials?

Surrogate materials are chemicals that are similar to chemical agent, but not as toxic. For incineration tests, surrogate materials are chosen that are considered more difficult to burn. Although surrogate testing operations are considered "hazardous waste operations" subject to the requirements of the UMCDF Permit, their purpose within the overall function of UMCDF is to serve as the final testing phase demonstrating the facility's readiness for chemical agent operations. Successful demonstration of furnace operations during surrogate trial burns is required before UMCDF is considered ready to move to trial burns with chemical agent.

What happens during a trial burn?

During the trial burn the surrogate materials are burned at rates that equal or exceed the rates at which real wastes will be burned in normal operation. As burning continues, UMCDF will measure waste feed rates, levels of carbon monoxide and particulate in the stack emissions, combustion temperature, combustion gas velocity, and other parameters.
Destruction and Removal Efficiency (DRE) for organic material (such as chemical agent) will be determined during trial burns. UMCDF must also determine the metals removal efficiency by adding certain metals (such as mercury and chromium) to the surrogate mixture that are expected to be in the chemical agents.

A trial burn is not a single test but rather a series of tests conducted under different operating conditions. For example, UMCDF will be conducting tests at different incinerator temperatures. At least three successful test runs are required under each test condition. If an incinerator fails to meet performance standards during the surrogate testing, the incinerator design, the pollution abatement system, and/or operational parameters must be modified and the trial burn repeated. If the trial burn data indicate compliance with performance standards under some, but not all, of the tested operating conditions, UMCDF may choose to repeat the trial burn. If the tests are not repeated, UMCDF may have to operate the incinerator only within the restricted range of conditions that demonstrated compliance with performance standards.

Does a trial burn pose a serious risk to human health and the environment?

No. During the trial burn the incinerator will only be operating under conditions that are expected to result in the incinerator meeting the performance standards approved by the DEQ. Although it is possible that an incinerator may fail to meet some performance standards during a trial burn, the risk to the environment and the public will be minimal because of the short duration of these tests.

To ensure that trial burns will be properly planned and executed, UMCDF is required to develop detailed trial burn plans for each type of furnace.

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By Shelly Ingram

The trial burn plan proposes the surrogate material feed rates and other operating conditions for the trial burn.
It also provides a description of all emission control equipment to be used, and explains the procedures for stopping the waste feed, shutting down the incinerator, and controlling emissions in the event of any problems.

UMCDF has submitted trial burn plans for the surrogate testing of each of the three installed incinerator types. DEQ reviews the plans submitted for each incinerator and any public comments. The trial burn plans are not approved unless, in DEQ's judgment, the incinerator can be expected to meet all standards throughout the trial burn. This includes assurance the level of incineration performance will not pose a hazard to health or the environment.

To date, UMCDF has conducted two trial burns. The first surrogate trial burn for the Liquid Incinerator 1(LIC1) was completed in January 2003 and appears to have been successful in demonstrating compliance with performance standards. The Deactivation Furnace System (DFS) trial burn, conducted in September and October of 2003, did not meet all of its performance standards and it is expected that additional testing will be required. The trial burn for the Metal Parts Furnace (MPF) is currently scheduled to occur in January 2004.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

Alternative formats of this document can be made available. Contact DEQ, Shelly Ingram at (541) 567-8297 ext. 25. People with hearing impairment may call DEQ's TTY at (503) 229-6993.

Related fact sheets available from DEQ:

- Bulk Processing
- Rocket Processing
- Projectile Processing
- Liquid Incinerator
- Metal Parts Furnace
- Deactivation Furnace System

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Public Participation

State of Oregon
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DEQ Item No. 03-2307

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Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD) near Hermiston, Oregon. The disposal facility includes several different types of incinerators.

The Umatilla Chemical Depot stores nerve agents and blister (called "mustard") agents in liquid form. All of the chemical warfare agents are highly toxic. Nerve agents are contained in munitions, such as rockets, projectiles and land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Blister agent is stored only in ton containers.

DEQ maintains an office in Hermiston to directly oversee storage operations and construction, permitting and operations of the disposal facility. The local office provides a communication link between the public and DEQ technical staff. Concerned citizens, interest groups, and elected officials are encouraged to express comments on environmental concerns they may have related to the disposal facility.

What are the roles of the Citizens Advisory Commission and the Environmental Quality Commission?

The Chemical Demilitarization Citizens Advisory Commission (CAC) is made up of seven residents from communities around the Umatilla Chemical Depot, as well as two state agency representatives (from Oregon State Police and DEQ). Members are appointed by the Governor to provide a public forum and to give input to the Army about the chemical agent disposal process. The CAC holds public meetings the third Thursday of every month.

The Environmental Quality Commission (EQC) is made up of five citizens appointed by the Governor. The EQC serves as the governing and policy-making body of the DEQ and issued the environmental permits for the disposal facility. They meet approximately every six weeks at locations around the state to decide regulatory environmental issues for the entire state of Oregon.

How can I get involved?

- *Visit DEQ's Hermiston office*
  Contact Shelly Ingram to receive written information or to ask questions.

- *Get on the mailing list*
  Contact the DEQ at 541-567-8297 (ext. 25) to be put on the mailing list to receive fact sheets, status updates, "chance to comment" forms, and advance notice of meetings dealing with the disposal facility.

- *Visit the Army's Umatilla Chemical Disposal Outreach Office in Hermiston*
  Get fact sheets from all agencies and participants in the disposal program, ask questions, look at models of the weapons and the incineration facility, or use a computer to access the internet. The address is 190 East Main Street in Hermiston.

- *Attend public meetings and hearings*
  Various organizations hold public meetings related to the chemical weapons disposal facility, including the CAC, EQC, the U.S. Army, DEQ, as well as emergency preparedness agencies such as Oregon State Police, county emergency management agencies, and others. It is important to attend these meetings to express your comments in person and get the current information available.

Contact Information

For DEQ information, please contact:

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  or call toll-free in Oregon:
  (800) 452-4011

For Army information, contact:

- Umatilla Chemical Disposal Outreach Office
  190 East Main Street
  Hermiston, OR 97838
  (541) 564-9339 or (888) 866-5928

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By: Shelly Ingram

For emergency preparedness information, contact:

Chemical Stockpile Emergency Preparedness Program (CSEPP) contacts:

- CSEPP Benton County
  Public Information Officer
  651 Truman Avenue
  Richland, WA 99352
  (509) 628-2600

- CSEPP Umatilla County
  Public Information Officer
  4700 NW Pioneer Place
  Pendleton, OR 97801
  (541) 966-3703

- CSEPP Morrow County
  Public Information Officer
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Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

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Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Risk Assessment

State of Oregon
Department of Environmental Quality

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Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD) near Hermiston, OR.

This fact sheet describes how DEQ conducts human health and ecological risk assessments and how the results are used.

What is a risk assessment?

A risk assessment uses scientific methods to estimate the risks of a chemical by identifying the type of harmful effects a pollutant might cause (its "toxicity") and evaluating how someone might be exposed to that chemical. A risk assessment is one of the tools that DEQ uses to make sure that UMCDF will not cause any harmful health or environmental effects when it begins operations to destroy the chemical weapons.

The goal is to estimate how much (if any) harm to human health or the environment will occur due to air emissions from the incinerator stacks during normal, day-to-day operation of the incinerators. Risk assessments also try to account for the temporary increase in emissions that can occur during non-normal operating conditions, called "upset" conditions. The environmental part of a risk assessment includes evaluating whether there are risks to ecological resources such as critical fish and wildlife habitat, or endangered species.

The steps in a risk assessment

The four basic steps in risk assessment are:
1) **hazard identification**
2) **dose-response assessment,**
3) **exposure assessment**
4) **risk characterization.**

STEP 1 – Hazard identification: Is there a hazard and if so what is it?

Hazard identification indicates whether exposure to a substance causes a harmful health or environmental effect and the nature of the effect.

Hazardous substances are identified by analyzing the wastes that will be fed into the incinerators to determine what kind of air pollutants might be produced during the incineration process, and by collecting emissions information during trial burns.

DEQ reviews information on each pollutant to determine if the chemical substance has been identified as harmful, and what type of harm it might cause. Hazard identification also helps the DEQ determine what types of pollutants to monitor for during the incineration trial burns.

STEP 2 Dose Response Assessment: How much is harmful and what are the harmful effects?

Dose response assessment relates the dose size to the risk involved. The dose of a harmful chemical is directly proportional to the amount of harm it causes. As the dose increases, the amount of harm increases. Some people, such as pregnant women, children, or the elderly, might be more sensitive to a chemical than others. Long term health effects are assessed for individuals who live, fish, or farm in the area.

STEP 3 – Exposure Assessment: Can a person be exposed through eating, breathing and/or skin contact?

Exposure assessment uses computer models to calculate the probable path of emissions from the incinerator stacks to determine the size of the area exposed. The emission paths determine who might be exposed to the pollutants, how long they would be exposed, and how much of the pollutant they might be exposed to. Exposure assessment then uses a variety of exposure "scenarios" to account for people's different lifestyles. For example, someone who lives close to the incinerators and grows their own food and raises animals might be exposed to stack emissions not only through breathing, but also from eating plants or animal products that have been exposed. Another scenario assesses exposure of small children because children breathe faster than adults and are more likely to come in contact with soil that has been exposed to stack emissions.

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By: Shelly Ingram

STEP 4-Risk Characterization: What are the possible harmful effects and what is the likelihood a harmful effect will occur?

Risk characterization combines the information collected during the first three steps and determines the likelihood that humans or animals will experience any of the health effects associated with a substance, or that the environment will be harmed. Risk characterization involves assigning a value to a risk, such as "there is a one a 100,000 chance that someone who lives near the site might get cancer from exposure to the chemicals." A different risk value (called a "hazard index") is calculated for those chemicals that cause harmful effects other than cancer. But some risks cannot adequately be assessed because valid scientific data are not available.

Are Risk Assessments reliable?

Risk assessments involve assumptions and thus include some degree of uncertainty. When information is limited (or not available), "professional judgment" decisions are usually made to err on the side of safety to overestimate risk. A risk assessment is a scientific tool used to determine the potential for risk—it does not determine actual risk.

To protect the most sensitive people in a population (such as young children, pregnant women, or the elderly) the risk assessment process uses a number of very conservative assumptions. Risk assessments generally tend to overestimate risks by assuming "worst-case" conditions, even though it is unlikely these conditions will occur. When the risk is calculated to be "one in a million," risk assessors are really saying that exposure to a chemical will add no more than one excess cancer case per one million people exposed. The actual number may be quite less (e.g. one in ten million), but is not expected to be greater than one in one million.

How will DEQ use the Risk Assessment?

The risk assessment is one of the tools that DEQ uses to establish operating conditions and stack emission limits for UMCDF. DEQ first conducted a risk assessment of UMCDF emissions in 1996 (before the permits were issued) using emissions information collected at other chemical weapons incinerators. After the first chemical agent trial burns are completed DEQ will conduct a "Post-Trial Burn Risk Assessment" using emissions data gathered during the tests.
Trial burns are incineration tests designed to test each furnace system and gather data to make sure that UMCDF will be able to comply with the conditions of its permits.

The Post-Trial Burn Risk Assessment will use up-to-date guidance available from the U.S. Environmental Protection Agency (EPA) on how to conduct a risk assessment. The DEQ will use the results of the risk assessment to decide whether any changes are needed in the operation and management of UMCDF, to assure that the facility will not pose any health or environmental risk to the community.

DEQ has prepared a workplan describing how the Post-Trial Burn Risk Assessment will be conducted. The workplan was released for public comment in October, 2003 and will be finalized in February, 2004.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

Alternative formats of this document can be made available. Contact DEQ, Shelly Ingram at (541) 567-8297 ext. 25. People with hearing impairment may call DEQ's TTY at (503) 229-6993.

Related fact sheets available from DEQ:

- Trial Burn Operations
- Summary of Risk Assessment Workplan

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Modification of Hazardous Waste Permit

State of Oregon
Department of Environmental Quality

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DEQ Item No. 03- 2303

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Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD) near Hermiston, Oregon.
The Umatilla Chemical Depot stores nerve agents and blister (called "mustard") agents in liquid form. All of these chemical warfare agents are highly toxic. Nerve agents are contained in munitions, such as rockets, projectiles and land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Blister agent is stored in ton containers.

Who requests changes to the Permit?

Any member of the public may request that the DEQ modify the permit. However, the "Permittee" usually makes a request for Permit Modification. In the case of UMCDF there are actually three "Co-Permittees": the Umatilla Chemical Depot (UMCD), the U.S. Army's "Project Manager for Elimination of Chemical Weapons" (PMECW), and Washington Demilitarization Company (formerly Raytheon), the contractor that built and will operate UMCDF.

What are DEQ's responsibilities?

The DEQ is responsible for Oregon's air and water quality, and management of hazardous and solid waste to protect human health and the environment. The DEQ's "Chemical Demilitarization Program" is based in Hermiston and provides daily environmental oversight of the Umatilla Chemical Depot and UMCDF. There are nine staff members, an Administrator, technical and hazardous waste specialists and office support staff. The DEQ Chemical Demilitarization Program mission statement is:

"To protect people and the environment by overseeing the safe destruction of the chemical agents at the Umatilla Chemical Depot as soon as possible."

Why does the Army's Permit need to be modified?

The UMCDF hazardous waste storage and treatment permit is considered an operating document, and many modifications of the document are expected to occur over the duration of the project. Modifications are required if there are alterations to the originally permitted facility, new information becomes available to the Permittee or to DEQ, or there are new regulations that apply to the facility.

Permit modifications are divided into three classes, and each has a slightly different public involvement process, depending on the significance of the proposed modification.

DEQ may issue a "Notice of Deficiency" for any of the permit modification request classes, requiring the Permittee to provide additional information or clarification of the information submitted with the modification request.

Class 1 modifications

Class 1 modifications involve minor changes to the permit. This type of modification does not substantially change the conditions in the permit or operations of the facility. Examples of Class 1 modifications include updates to addresses, correction of typographical errors, changes to telephone numbers, or an upgrade of equipment.

The DEQ may reject a modification. However, if DEQ approves the modification the Permittee must send a notice to everyone on the DEQ's mailing list within 90 days. Any member of the public may request that the DEQ revisit a Class 1 modification request.

Class 2 modifications

Class 2 modifications are significant changes to the permit and are used primarily to address improvements in technology and management of the facility. A Class 2 modification requires the Permittee to submit a request to the DEQ that includes a description of the proposed change, why it is needed, and supporting documentation.

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The Permittee must publish a notice and hold an informational meeting during the 60-day public comment period. Comments on the proposed modification must be directed to DEQ as indicated in the public notice.

Class 3 modifications

Class 3 modifications are used for major changes to the Facility or its operation. An example of a Class 3 modification would be an increase in the amount of hazardous waste stored or incinerated at a facility. Class 3 modifications require the Permittee to follow the same procedures as Class 2 modifications, including notifying the public, having a 60-day comment period, and holding an informational public meeting. But in the case of Class 3 modification requests there is an additional public comment period of 45 days. The 45 day period begins the day that DEQ issues a draft decision on the modification. DEQ usually conducts a public hearing during the 45-day comment period to accept oral testimony.

The DEQ provides a written response to significant comments (received during the comment periods) for both class two and class three modifications when a final decision on the modification request is issued. Some Class 3 modifications may be decided by the EQC.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

Alternative formats of this document can be made available. Contact DEQ, Shelly Ingram at (541) 567-8297 ext. 25. People with hearing impairment may call DEQ's TTY at (503) 229-6993.

Related fact sheets available from DEQ:

- Public Participation
- Umatilla Chemical Demilitarization Program
- Storage and Management of Hazardous Waste

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Storage & Management of Hazardous Waste

State of Oregon
Department of Environmental Quality

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Chemical Demilitarization Program
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Contact: Shelly Ingram
DEQ Item No. 03-2310

www.deq.state.or.us

Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD). Chemical weapons have been stored at UMDC since the 1960's.

The Umatilla Chemical Depot stores nerve (GB and VX) agents and blister (HD called "mustard") agents in liquid form. All of the chemical warfare agents are highly toxic. Nerve agents are contained in munitions, such as rockets, projectiles and land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Blister agent is stored in ton containers.

What kinds of hazardous wastes are generated by the Umatilla Chemical Depot?

Some Hazardous wastes generated at the UMCD come from support operations that have no association with chemical agents. These hazardous wastes are stored at UMCD only until they can be shipped to a permitted offsite treatment and disposal facility.

The bulk of the hazardous wastes stored at the Depot are chemical agent-related wastes. Chemical generated by the maintenance of the stored chemical munitions. When a leak is detected in a chemical munition the leaking munition is placed in a containment device (overpack) to prevent releases of chemical agent vapor to the air. The overpacked munition is then moved to one of the waste storage "igloos," where it can be monitored on a more frequent basis. Wastes produced during normal inspection and maintenance activities or when dealing with leaking munitions include spent decontamination fluids, packaging wastes and cleanup wastes.

Are all the chemical munitions at UMCD considered hazardous wastes?

Yes, the Oregon hazardous waste regulations were amended in March 2001 requiring all of the chemical agent munitions at the UMCD to be listed as hazardous wastes.

Where are the wastes stored at the Umatilla Chemical Depot?

All of the hazardous wastes at UMCD are stored in buildings called "igloos." The igloos at UMCD were built in 1941 of steel-reinforced concrete covered with about two feet of dirt and gravel. Each igloo is about 13-feet high and 26-feet wide, and can be as long as 80-feet. The igloos were designed to store conventional ammunition. There are a total of 1001 igloos at UMCD, most are presently empty.

About 120 of the igloos at UMCD are used to store chemical agent munitions. The chemical agent is stored in groups of igloos known as I-Block and K-Block. I-Block and K-Block igloos have special security features, including heavy steel-reinforced concrete blocks placed in front of each door; dual, high security padlocks; and an intrusion detection system. Both storage areas are protected by a double cyclone fence with barbed wire on top and an electronic intruder detection system. Armed guards are on patrol duty 24 hours a day, 7 days a week.

The hazardous wastes resulting from maintenance of the chemical munitions are stored in igloos located in a different area called J-Block. These igloos are locked, but have a lower level of security than I-Block and K-Block. This is also the area where process wastes (called"secondary" wastes) produced by operation of the Umatilla Chemical Agent Disposal Facility (UMCDF) will be stored.

[Non-agent related hazardous wastes generated by UMCD administrative support operations are stored in Building 203 which is located in a separate area at the UMCD.]

What kinds of hazardous wastes will be generated when UMCDF begins operations?

Normal operations of UMCDF will produce liquid and solid wastes from the incinerators, pollution control systems, filter systems, and maintenance activities at the project site.

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By: Shelly Ingram

The wastes produced from these activities will include ash, scrap metal, slag, brine salts, used filter carbon, personal protective gear used for agent operations, wood pallets, and packaging materials. Wastes will also be produced from the operation of the laboratory and the numerous chemical agent monitoring operations that UMCDF is required to conduct.

Some of the above mentioned wastes are generated in areas of the plant where there is no contact with agent, some are contaminated with chemical agent, and some are residues remaining after incineration has been completed. All of these different types of wastes are referred to as "secondary wastes," and must be stored and managed in accordance with the regulations governing hazardous wastes.

What will happen to the secondary wastes from UMCDF?

Secondary wastes will be shipped off-site for disposal at a permitted Hazardous Waste Treatment, Storage, and Disposal Facility (called a "TSDF"). In general the wastes shipped offsite are either generated from activities where there is no agent, are residues left over after incineration, or have been analyzed to confirm there is no agent contamination. These wastes could include ash and slag from the incinerators, metal scrap, and salt cake created from drying the brine liquids used in the pollution control systems.

Other secondary wastes, such as used filter carbon, personal protective gear, lab wastes, packaging materials, and wastes produced from maintenance activities (i.e., decontamination wastes, rags, contaminated tools, used hydraulic oil) will require further treatment at UMCDF to destroy any possible agent contamination before they can be shipped off site for disposal. These wastes will be stored in J-Block until they can be returned to UMCDF for treatment.

What types of hazardous wastes will be stored in each of the storage areas?

Building 203 will be used to store "non-agent related" hazardous wastes, such as paint wastes and used solvents until it can be shipped to a TSDF.

K-Block will continue as the storage area for chemical nerve agent munitions and containers until they can be treated at UMCDF. Munitions that are transported to UMCDF and then rejected for processing may sometimes be returned to K-Block for special handling and processing.

[Most of the operations at UMCDF are conducted by robotic machinery. If an automatic machine cannot process a munition (for example, a part that cannot be unscrewed or opened) it will be rejected. These munitions will be stored and then processed individually at a later date.]

I-Block will continue as the storage area for blister (mustard) agent stored in ton containers.

J-Block will continue as the storage area for chemical agent-related wastes until the wastes can be treated at UMCDF. J-Block will also be used to store secondary wastes from UMCDF operations that require further treatment before final off-site disposal at a TSDF.

Who keeps track of what is in storage and how it is managed?

The U.S. Army owns the Umatilla Chemical Depot (UMCD) and the Umatilla Chemical Agent Disposal Facility (UMCDF) and is responsible for operations at both facilities. This includes the management of the various storage areas, maintenance activities, monitoring of the chemical weapons stockpile, and recordkeeping required by regulations.

Until recently, UMCD and UMCDF were managed by two separate organizations within the Army. The organization known as the Soldier Biological and Chemical Command (SBCCOM) had direct oversight of UMCD and the storage of the chemical weapons stockpile. Another organization called the Project Manager for Chemical Stockpile Disposal (PMCSD) was responsible for operations at UMCDF.

These two responsibilities remain distinct, but are now under a unified command structure called the Chemical Materials Agency (CMA), with the UMCD commander is the senior local officer. Responsibility for UMCDF operations is now part of CMA called the Project Manager for Elimination of Chemical Weapons (PM ECW)

PM ECW has contracted with Washington Demilitarization Company (WDC) to build and operate UMCDF. All daily UMCDF operations, including management of the secondary wastes, are conducted by WDC personnel under the direct oversight of PM ECW. All three organizations (UMCD, PM ECW, and WDC) are named on the UMCDF hazardous waste treatment and storage permit.

The Oregon DEQ and the U.S. Environmental Protection Agency (EPA) represent the state and federal government as oversight agencies to ensure full compliance with hazardous waste rules and regulations.

What kind of inspections are done and how often?

DEQ inspects UMCDF waste management systems and records at least monthly, and generally a DEQ hazardous waste compliance inspector is at UMCDF two to three days a week. DEQ inspects the UMCD's waste management systems, storage facilities and records at least quarterly. DEQ and EPA conduct joint inspections of UMCD every year.

UMCD must physically examine, at least annually, every igloo that contains hazardous wastes. UMCD inspectors look for structural integrity, cracks, evidence of leaks, and function of drains and vents. Waste storage containers within J-Block igloos, Building 203 and "accumulation areas" are examined at least weekly for evidence of leakage or damage, and proper storage conditions and labeling.

UMCD use interior air monitoring as an alternate to physical entry of the munitions storage units. Currently, the air inside of I-Block and K-Block storage igloos is monitored at least weekly for signs of chemical agent leaks. The two igloos used for storage of overpacked leaker munitions are monitored daily. If a leak is detected, the air inside the igloo is cleaned using a carbon filter allowing personnel wearing protective clothing to enter and remove the "leaker" munition. Igloos are also entered periodically for inspection or maintenance functions. Individual munitions in storage igloos are visually inspected on a rotating basis at least annually. More intensive and comprehensive inspections of individual munitions are conducted periodically in accordance with Army requirements.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

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Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Deactivation Furnace System

Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD) near Hermiston, Oregon.

The Umatilla Chemical Depot stores nerve agents and blister (called "mustard") agents in liquid form. All of these chemical warfare agents are highly toxic. Nerve agents are contained in munitions, such as rockets, projectiles and land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Mustard agent is stored in ton containers. Destruction of the various munitions requires different types of furnaces. UMCDF has three different furnace types; including two Liquid Incinerators (LICs), a Deactivation Furnace System (DFS), and a Metal Parts Furnace (MPF).

What is the role of the Deactivation Furnace System (DFS) in the facility?

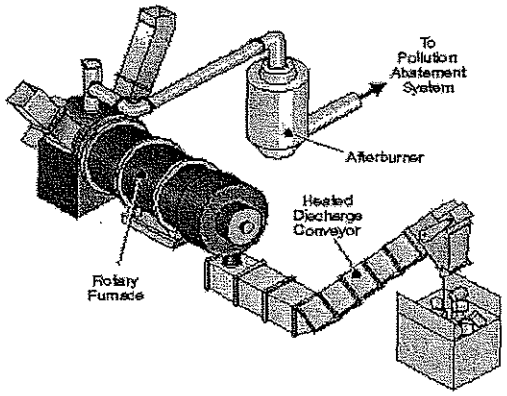
The DFS provides the flexibility and the capacity to incinerate the chopped rockets, explosives and propellants and remaining agent.

What material is burned in the Deactivation Furnace System (DFS)?

The primary function of the Deactivation Furnace System (DFS) is to incinerate and destroy the explosives and propellants removed from the various munitions as they are taken apart during the demilitarization process. Explosive components include fuses and detonators, initiator and burster charges, and cutter charges of various types and sizes. Most of the propellants come from the rockets. Other items fed into the DFS include the fiberglass tubes used to store the rockets, land mine casings, waste materials from Munitions Demilitarization Building (MDB) maintenance, and other small metal or non-metal items.

How is waste fed into the DFS?

Wastes are fed into the DFS through chutes connected to the Explosive Containment Rooms (ECRs). The munitions are physically dismantled in the ECRs. The exception being M55 rockets, which are cut into (8) pieces with the explosives and propellants in tact, these pieces are burned in the DFS.



How does the DFS work?

The DFS is a rotary kiln, which slowly rotates to move wastes through the barrel of the kiln. The wastes move through the kiln and remain separated with the help of an internal spiral baffle, which looks similar to the edge of a screw.

The process begins when items drop into the high temperature end of the kiln through two chutes from the ECRs. The objects heat up and ignite as they enter the furnace and burn out completely as they spiral through the length of the kiln. The burner at the discharge end of the kiln maintains a minimum temperature of 950°F.

At the discharge end of the kiln the metal and ash residues drop onto a heated discharge conveyor where they are heated at a minimum temperature of 1000° F for at least 15 minutes to ensure complete decontamination. The hot ash residues are then discharged into bins and transferred to the cooling pad.

Combustion gases from the kiln process flow through a cyclone where the gases swirl (resembling to a tornado) to remove fiberglass pieces and other ash caught in the gases. The cyclone causes the waste particles to separate from the gas and drop into a collection hopper. The ash is then packed into drums for disposal.

After passing through the cyclone the gases flow to a secondary combustion chamber (or afterburner) for further treatment to ensure agent destruction. Temperatures in the afterburner are maintained at a minimum of 1950° F. The exhaust gases then flow to the Pollution Abatement System (PAS) for removal of any remaining pollutants prior to leaving the stack.

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Department of Environmental Quality

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DEQ Item No. 03-2302

www.deq.state.or.us

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What is left over after the DFS process?

The primary wastes generated from the DFS process are metal scrap, fiberglass residue, and ash. The DFS process also produces combustion gases, which are treated in an afterburner and in the Pollution Abatement System (PAS). The PAS is a wet scrubber system that uses water and chemicals to cool the gases and remove pollutants.

All wastes, including residues from the furnaces, must be certified as "agent-free" prior to off-site shipment.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

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Related fact sheets available from DEQ:

- Liquid Incinerator
- Metal Parts Furnace
- Rocket Processing
- Projectile Processing

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Metal Parts Furnace

State of Oregon
Department of Environmental Quality

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Chemical Demilitarization Program
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Contact: Shelly Ingram
DEQ Item No. 03-2304

www.deq.state.or.us

Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD) near Hermiston, Oregon.

The Umatilla Chemical Depot stores nerve agents and blister (called "mustard") agents in liquid form. All of these chemical warfare agents are highly toxic. Nerve agents are contained in munitions, such as rockets, projectiles and land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Blister agent is stored only in ton containers.

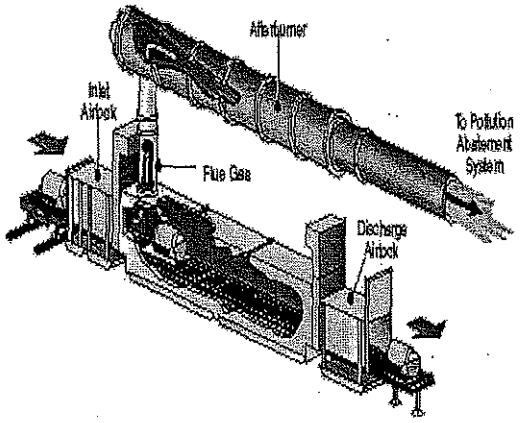
Destruction of the various munitions requires different types of furnaces. UMCDF has three different furnace types; including two Liquid Incinerators (LICs), a Deactivation Furnace System (DFS), and a Metal Parts Furnace (MPF).

What is the Metal Parts Furnace role in the facility?

The MPF ensures that the large quantity of metal from munitions demilitarization and other metal scrap from Facility operations and maintenance are decontaminated by high temperature heat treatment before they leave the site for metal recycling or land disposal.
All wastes, including residues from the furnaces, must be certified as "agent-free" prior to off-site shipment.

What material is burned in the (MPF)?

The Metal Parts Furnace (MPF) receives the emptied projectiles, bomb cases and other metal containers that contained chemical agent or chemical munitions. The metal items put into the MPF are from munitions that have been drained of chemical agent, disassembled, and have had the energetics (explosive and propellant parts) removed during the demilitarization process. Other items fed into the MPF include piping and equipment replaced during operational maintenance. Any agent remaining inside the metal items or on their surfaces is destroyed by combustion.



How is waste fed into the MPF?

The wastes are brought from the processing bay (dismantling area), then put on a conveyor belt and fed into the MPF through the hydraulically-operated airlock doors into Zone 1 of the MPF. This is where the combustion process begins.

How does the MPF work?

The MPF is a natural gas-fired incinerator with three distinct burner zones connected by roller conveyors. Airlock chambers on both ends of the incinerator allow items to enter and leave the furnace without agent vapor escaping.

An item is moved from the feed airlock into the first burner zone, where it is heated by gas-fired burners for a preset amount of time, which varies depending on type of munition. Operating temperatures in Zone 1 vary from 1450° F to 1600° F. After being heated in Zone 1 for the preset time, the roller conveyors transfer the items into Zone 2, where they are heated for an extended period of time at the same temperature as in Zone 1. As items are transferred from Zone 1 to Zone 2, new items are introduced into Zone 1. After being heated in Zone 2, the wastes are moved to Zone 3, where they are heated at high temperatures until all agent is destroyed.

Exhaust combustion gases from Zones 1, 2 and 3 flow to the Afterburner, where they are heated to 2000° F to ensure that any agent vapor present is burned before the gases continue onward to the Pollution Abatement System (PAS). The PAS is a "wet" scrubber system that uses water and chemicals to cool the gases and remove pollutants.

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When items have completed the heating cycle in Zone 3 they are moved into the discharge airlock and the airlock door is closed to isolate them from the high furnace temperatures.

Air is then blown into the discharge airlock to begin cooling the items, during this process air coming out of the airlock is monitored to confirm that all agent has been destroyed. If no agent is detected, the items can be transferred from the discharge airlock to the cool-down conveyor. If agent is detected the conveyors reverse to return the items to the MPF for additional treatment.

What is left over after the MPF process?

The main waste generated from the MPF is the heat-treated metal scrap, with some ash residue. The combustion gases exhausted from the MPF continue on to the PAS for treatment and removal of pollutants.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

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Related fact sheets available from DEQ:

- Liquid Incinerator
- Rocket Processing
- Projectile Processing
- Deactivation Furnace System

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Bulk Item Processing

State of Oregon
Department of Environmental Quality

Office of the Director
Chemical Demilitarization Program
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DEQ Item No. 03-2301

www.deq.state.or.us

Background

In February 1997, the Oregon Environmental Quality Commission, the Department of Environmental Quality's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF). The purpose of this facility is to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD) near Hermiston, Oregon.

The Umatilla Chemical Depot stores nerve agents and blister (called "mustard") agents in liquid form. All of these chemical warfare agents are highly toxic. Nerve agents are contained in munitions, such as rockets, projectiles, land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Blister agent is stored only in ton containers.

How much agent is in the bulk items?

The UMCD stores three types of bulk items. These items include bombs, ton containers, and spray tanks. There are two types of bombs; the 500-lb bomb contains 108 pounds of GB nerve agent and the 750-lb bomb contains 220 pounds of GB nerve agent. Ton containers hold 1,776 pounds of mustard agent while spray tanks stow 1,356 pounds of VX nerve agent. The UMCD stores approximately 2,400 750-lb bombs and 27 500-lb bombs, over 150 spray tanks, and slightly more than 2,600 ton containers of mustard agent.

How are bulk items stored?

All bulk items are stored in earth-covered concrete buildings called "igloos" or bunkers. Ton containers storing mustard agent are also located in igloos.

Are there guidelines for munitions transportation?

Yes. The UMCD has strict guidelines that must be followed prior to and during transportation of all munitions. The guidelines were established to prevent transportation accidents and to ensure that if an incident occurs, chemical agent will not travel beyond the UMCD boundaries. The UMCDF Permit requires that weather conditions be evaluated daily prior to any loading or transporting of munitions.

When certain weather conditions, such as icy roads or heavy fog, exist transportation of munitions is not allowed. The DEQ also requires a Transportation Contingency Plan to be in place prior to the movement of any munitions, and that all munitions (except for spray tanks) be transported from the igloos to UMCDF inside an "Enhanced On-Site Container" (EONC).

What is an EONC?

An EONC is a cylindrical transport container about 12 feet long by 8 feet high that is specifically designed to withstand impacts, fire, crushing, and leaks. There are a maximum number of munitions or containers that may be loaded into an EONC which varies for each type of munition. The EONC has a hydraulically sealed door with a locking ring mechanism. After the EONC is loaded, the door is closed and the seal checked for tightness before it is moved by truck to the UMCDF.

How are bulk items transported to UMCDF?

Before entering the storage igloos, workers sample the air on the inside of the igloos to make sure there are no vapor leaks. If the sample shows it is safe to enter the igloo, the workers open the door. A forklift is then used to carefully pick up the pallets (one at a time) and transfer the munitions to the EONC.

An EONC can hold either two ton containers, or five 500-lb bombs, or four 750-lb bombs. Once the EONC is loaded, the door is closed and sealed. Spray tanks are not loaded into EONCs because they are already packaged in a shipping and transport container. Both types of containers are transported to the Container Handling Building (CHB) by truck. At the CHB, custody of the containers is transferred to UMCDF personnel .

Because the loading and transportation of the munitions from the igloos may be prohibited under certain conditions, the CHB is permitted to store up to 48 EONCs at a time. This provides enough storage capacity to continue agent processing when additional munitions cannot be moved into the building.

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What happens to the EONCs once inside the Container Handling Building?

The EONCs or spray tank containers are unloaded from the truck with an overhead crane and placed on a conveyor for transfer to the unpack area via an elevator (or lift) to the second floor. There are two lifts between the unloading area and the unpack area, one for full containers coming up and one for empty containers going down. The lifts are sealed to make sure air from the Munitions Demilitarization Building (MDB) is contained within the filtered area of the MDB. In the Unpack Area the interior of the EONC or spray tank container is monitored for signs of chemical agent before the door is opened. If agent is detected, the transport container remains sealed and is sent back down the elevator and routed to the Toxic Maintenance Area for special handling. If no agent is detected, the transport container is opened and the bulk items are removed.

The bulk items are placed in steel cradles, then loaded into trays, placed on conveyors, and transported through the Explosion Containment Vestibule to the Munitions Corridor. From this point on the process is remotely controlled.

How are bulk items prepared for processing?

Bulk items are moved from the Munitions Corridor to the Bulk Drain Station in the Munitions Processing Bay. At the Bulk Drain Station the bulk article is transferred onto load cells that weigh the container prior to agent removal.

How are bulk items processed?

Once the bulk item has been weighed the item is then punched and a probe is lowered into the hole to drain the container of chemical agent. The agent is pumped into holding tanks where it is stored before being treated in one of the Liquid Incinerators (LIC). Some of the items are punched twice to improve venting of the container when it is in the furnace.

After the item has been drained of the chemical agent, it is weighed. The ending weight of the container is used to calculate the amount of agent that has been drained out of the container. The operator is alerted if the software calculates that the container has not been fully drained and the process may be repeated if necessary. At least 95% of the original contents must be drained before the item is processed in the Metal Parts Furnace (MPF).

An item that cannot be fully drained may not be processed through the furnace, unless a special procedure is developed for that purpose. facility personnel must also obtain DEQ approval of this process before the item that was not fully drained can be processed.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

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Related fact sheets available from DEQ:

- Liquid Incinerator
- Metal Parts Furnace
- Deactivation Furnace System

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Mine Processing

State of Oregon
Department of Environmental Quality

Office of the Director
Chemical Demilitarization Program
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DEQ Item No. 04-0001

Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD) near Hermiston, Oregon.

The Umatilla Chemical Depot stores nerve agents and blister (called "mustard") agents in liquid form. Nerve agents are contained in munitions, such as rockets, projectiles, land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Blister agent is stored in ton containers. All of the chemical warfare agents are highly toxic.

How much agent is in a mine?

Each mine contains approximately 10.5 pounds of agent. The UMCD stores about 11,700 VX mines.

How are mines stored?

All mines are stored in earth-covered concrete buildings called "igloos" or bunkers. The mines are stored in metal drums; three mines are stacked on top of one another in each drum. The fuses and actuators of the mines are stored on the inside of the drum lid. The metal drums that contain the mines are stored on pallets and stacked in each igloo.

Are there guidelines for munitions transportation?

Yes. The UMCD has strict guidelines that must be followed prior to and during transportation of all munitions. The guidelines were established to prevent transportation accidents and to ensure that if an incident does occur, chemical agent will not travel beyond the UMCD boundaries. The UMCDF Permit requires that weather conditions be evaluated daily prior to any loading or transporting of munitions.

Transportation of munitions is not allowed under certain weather conditions, such as heavy fog or icy roads. The DEQ also requires that a Transportation Contingency Plan be in place prior to the movement of any munitions, and that all munitions (except for spray tanks) be transported from the igloos to UMCDF inside an "Enhanced On-Site Container" (EONC).

What is an EONC?

An EONC is a cylindrical transport container about 12 feet long by 8 feet high that is specifically designed to withstand impacts, fire, crushing, and leaks. There is a maximum number of munitions or containers that may be loaded into an EONC. The load varies for each type of munition. The EONC has a hydraulically sealed door with a locking ring mechanism. After the EONC is loaded the door is closed and the seal is checked for tightness before it is moved by truck to the UMCDF.

How are mines transported to UMCDF?

Prior to entry into the storage igloos the workers sample the air inside of the igloos to make sure no vapor leaks have occurred. If the sample shows it is safe to enter the building, the workers open the door. A forklift is then used to carefully pick up the pallets (one at a time) and transfer the munitions to the EONC. An EONC can hold 12 mine drums, for a total of 36 mines. Once the EONC is loaded, the door is closed and sealed. The EONC is transported by truck to the Container Handling Building (CHB) where the UMCDF personnel take custody of the munitions.

Because the loading and transportation of the munitions from the igloos may be prohibited under certain conditions, the CHB is permitted to store up to 48 EONCs at a time. This provides enough storage capacity to continue agent processing when additional munitions cannot be moved into the building.

What happens to the EONCs once inside the CHB?

The EONCs are unloaded from the truck with an overhead crane and placed on a conveyor for transfer to the unpack area (via an elevator to the second floor). There are two elevators between the unloading area and the unpack area, one for full EONCs going up and one for empty containers coming down. The lifts are sealed to make sure air from the Munitions Demilitarization Building (MDB) is contained within the filtered area of the MDB.

In the MDB unpack area the interior of the EONC is monitored for signs of chemical agent before opening the door. If agent is detected, the EONC remains sealed and is sent back down the elevator and routed to the Toxic Maintenance Area for special handling. If no agent is detected, the EONC door is opened and the pallets are removed.

The mine drums are transported to the Mine Glovebox to prepare for processing.

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How are mines prepared for processing?

At the Mine Glovebox the mines and the explosive components (fuses and actuators) are removed from the drum one at a time. The removed explosives are placed in an empty fuse box and transported on a conveyor to the Explosion Containment Room (ECR). The explosive components are fed through the ECR down the feed chute to the Deactivation Furnace System (DFS). The mines are placed on the mine conveyor and transferred to the Explosion Containment Room Vestibule for staging prior to processing in the ECR. From this point forward all processing is remotely controlled.
The empty mine drum is transported to the Metal Parts Furnace (MPF) for thermal treatment.

How is a mine processed?

When the mine enters the ECR it is transferred onto the Mine Machine. The mine is rotated from a horizontal to a vertical position at the Punch and Drain Station. The agent cavity of the mine is then punched and the agent is drained.

The agent is measured to verify that the mine has been drained, and then pumped to holding tanks where it is stored prior to treatment in the Liquid Incinerator (LIC).

Once the agent is drained, the mine is placed upside down on the mine trolley and moved to the Burster Punch Station. A hole is punched through the burster; the burster is pushed out of the mine, and fed to the DFS. The empty mine is then dropped down the feed chute to the DFS for treatment of any residual agent.

Where to get more information

Contact Shelly Ingram 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

Alternative formats

Alternative formats of this document can be made available. Contact the DEQ Shelly Ingram at (541) 567-8297 ext. 25. People with hearing impairment may call DEQ's TTY at (503) 229-6993.

Related fact sheets available from DEQ:

- Liquid Incinerator
- Projectile Processing
- Metal Parts Furnace
- Deactivation Furnace System

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Projectile Processing

State of Oregon
Department of Environmental Quality

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DEQ Item No. 03-2306

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Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD) near Hermiston, Oregon.

The Umatilla Chemical Depot stores nerve agents and blister (called "mustard") agents in liquid form. All of the chemical warfare agents are highly toxic. Nerve agents are contained in munitions, such as rockets, projectiles, land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Blister agent is stored in ton containers.

How much agent is in a projectile?

The UMCD stores almost 80,000 155-mm projectiles and about 18,000 of the 8-inch projectiles, containing VX and GB nerve agents. The 155-mm projectile contains six pounds of chemical agent, and the 8-inch projectile contains 14.5 pounds.

How are projectiles stored?

All projectiles are stored on wood pallets in earth-covered concrete buildings called "igloos" or bunkers. Each pallet holds a total of eight 155-mm projectiles or six 8-inch projectiles. The pallets are stored stacked on top of each other.

Are there guidelines for munitions transportation?

Yes. The UMCD has strict guidelines that must be followed prior to and during transportation of all munitions. The guidelines were established to prevent transportation accidents and to ensure that if an incident does occur, chemical agent will not travel beyond the UMCD boundaries. The UMCDF Permit requires that weather conditions be evaluated daily prior to any loading or transporting of munitions. Under certain weather conditions, such as icy roads or dense fog, transportation of munitions are not allowed. The DEQ also requires that a Transportation Contingency Plan be in place prior to the movement of any munition, and that all munitions (except for spray tanks) be transported from the igloos to UMCDF inside an "Enhanced On-Site Container" (EONC).

What is an EONC?

An EONC is a cylindrical transport container about 12 feet long by 8 feet high that is specifically designed to withstand impacts, fire, crushing, and leaks. There are a maximum number of munitions or containers that may be loaded into an EONC. The load varies for each type of munition. The EONC has a hydraulically sealed door with a locking ring mechanism. After the EONC is loaded the door is closed and the seal is checked for tightness before it is moved by truck to the UMCDF.

How are projectiles transported to UMCDF?

Before going into the storage igloos the workers sample the air inside of the igloos to make sure there are no vapor leaks. If the sample shows it is safe to enter the building, the workers open the door. A forklift is then used to carefully pick up the pallets individually and transfer the munitions to the EONC. An EONC can hold nine pallets of 155-mm projectiles or six pallets of 8-inch projectiles. Once the EONC is loaded, the door is closed and sealed. The EONC is transported by truck to the Container Handling Building (CHB) where UMCDF personnel take custody of the munitions.

Because the loading and transportation of the munitions from the igloos may be prohibited under certain conditions, the CHB is permitted to store up to 48 EONCs at a time. This provides enough storage capacity to continue agent processing when additional munitions cannot be moved into the building.

What happens to the EONCs once inside the CHB?

The EONCs are unloaded from the truck with an overhead crane and placed on a conveyor for transfer to the unpack area (via an elevator to the second floor). There are two elevators between the unloading area and the unpack area, one for full EONCs going up and one for empty containers coming down The lifts are sealed to make sure air from the Munitions Demilitarization Building (MDB) is contained within the filtered area of the MDB.

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In the unpack area, the interior of the EONC is monitored for signs of chemical agent before the door is opened. If agent is detected, the EONC remains sealed and is sent back down the elevator and routed to the Toxic Maintenance Area for special handling. If no agent is detected, the EONC door is opened and the pallets are removed.

How is a projectile processed?

Each projectile is manually removed from the pallets and loaded base first onto the Projectile Feed Conveyor, from this point the process is remotely controlled. The conveyor moves the projectiles through an airlock into the Explosion Containment Vestibule and then into the Explosion Containment Room (ECR).

Once the projectile enters the ECR it is transferred to the Projectile/Mortar Disassembly (PMD) Machine for "reverse assembly." The PMD is a multi-station machine that removes the explosive components from each projectile prior to agent draining.

The PMD includes an indexing table that rotates the projectile to different stations. The first station of the PMD is called the "Load Station," where the projectile is removed from the conveyor. The projectile is rotated to the second station, the "Nose Closure Removal Station," where the lifting plug is removed and sent by conveyor to the Deactivation Furnace System (DFS).

The table is then rotated again, placing the projectile at the third station, called the "Miscellaneous Parts Removal Station." This is where the fuze well cup or other explosive charges are removed from the projectile and sent by conveyor to the DFS.

The fourth station is the "Burster Removal Station," where the last explosive component, the burster charge, is removed.

The burster is a tube packed with explosives contained in a "burster well" that extends the length of the projectile. The burster is pulled out of the projectile, cut into two pieces, and fed to the DFS through a feed chute. The projectile is then unloaded from the PMD at the fifth station, the "Unload Station," and transferred from the ECR to the Munitions Processing Bay (MPB).

At the MPB the projectiles are transferred to the Multipurpose Demilitarization Machine (MDM). The MDM uses a two-step process to remove agent from the projectile. The first step removes the burster well from the projectile, and the second step inserts a drain tube to drain the chemical agent. The agent is measured to verify that the projectile has been drained, and then pumped to holding tanks where it is stored prior to treatment in the Liquid Incinerator (LIC).

After the agent is drained, the burster well is crimped to deform it before it is placed back in the projectile. Crimping the burster well prevents it from being reinserted completely, so that there is free air movement within the projectile. This prevents pressure build-up when the projectile is heated. After the burster well has been re-inserted a machine picks up the projectile and places it on a tray. When the tray is full it is transferred to the Metal Parts Furnace(MPF) for combustion of any residual agent.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

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Related fact sheets available from DEQ:

- Liquid Incinerator
- Rocket Processing
- Metal Parts Furnace
- Deactivation Furnace System

Fact Sheet-
Umatilla Chemical Agent Disposal Facility

Rocket Processing

State of Oregon
Department of Environmental Quality

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DEQ Item No. 03-2309

www.deq.state.or.us

Background

In February 1997, the Environmental Quality Commission, the DEQ's governing body, issued environmental permits to the U.S. Army to build and operate the Umatilla Chemical Agent Disposal Facility (UMCDF) to destroy the chemical weapons stockpile stored at the Umatilla Chemical Depot (UMCD) near Hermiston, Oregon.

How are rockets stored?

All munitions are stored in earth-covered concrete bunkers called "igloos." Rockets are individually packed in fiberglass shipping and firing tubes. The encased rockets are strapped together on wooden pallets (15 rockets to a pallet) for storage and transport. The rocket is never removed from the shipping and firing tube during processing at UMCDF.

Are there guidelines for munitions transportation?

Yes. The UMCD has strict guidelines that must be followed prior to and during transportation of all munitions. The guidelines were established to prevent transportation accidents and to ensure that if an incident does occur, chemical agent will not travel beyond the UMCD boundaries. The UMCDF Permit requires that weather conditions be evaluated daily prior to any loading or transporting of munitions.

Under certain weather conditions, such as icy roads or dense fog, transportation of munitions is not allowed. The DEQ also requires that a Transportation Contingency Plan be in place prior to the movement of any munitions, and that all munitions (except for spray tanks) be transported from the igloos to UMCDF inside an "Enhanced On-Site Container" (EONC).

What is an EONC?

An EONC is a cylindrical transport container about 12 feet long by 8 feet high that is specifically designed to withstand impacts, fire, crushing, and leaks. There are a maximum number of munitions or containers that may be loaded into an EONC. This load limit varies for each type of munition. The EONC load limit for rockets is two pallets, or a total of 30 rockets. The EONC has a hydraulically sealed door with a locking ring mechanism. After the EONC is loaded the door is closed and the seal is checked for tightness before it is moved by truck to the UMCDF.

How are rockets transported to UMCDF?

Before opening any munitions storage igloo the UMCD workers sample the air inside of the igloo to make sure there are no vapor leaks. If the sample shows it is safe to enter the igloo, the workers open the door and prepare the work area. A forklift is then used to carefully pick up the each pallet individually in order to transfer the palleted munitions to the EONC. When the EONC is loaded with two rocket pallets, the door is closed and sealed. The EONC is then transported by truck to the Container Handling Building (CHB) at UMCDF, where the UMCDF personnel take custody of the munitions.

Because the loading and transportation of the munitions from the igloos may be prohibited under certain conditions, the CHB is permitted to store up to 48 EONCs at a time. This provides enough storage capacity to continue agent processing when additional munitions cannot be moved into the building.

What happens to the EONCs once inside the CHB?

The EONCs are unloaded from the truck with an overhead crane and placed on a conveyor for transfer to the unpack area (via an elevator to the second floor). There are two elevators between the unloading area and the unpack area, one for full EONCs going up and one for empty containers coming down. The lifts are sealed to make sure air from the Munitions Demilitarization Building (MDB) is contained within the filtered area of the MDB.
In the MDB unpack area the interior of the EONC is monitored for signs of chemical agent before opening the door. If agent is detected, the EONC remains sealed and is sent back down the elevator and routed to the Toxic Maintenance Area for special handling. If no agent is detected, the EONC door is opened and the pallets are removed.
The pallets are transported from the EONC to the Rocket Metering Machine to prepare for processing. From this point forward the processing is remotely controlled.

How much agent is in a rocket?

UMCD has about 91,400 M-55 rockets in storage, each of which contains 10.7 pounds of GB nerve agent. In addition, there are about 14,500 M-55 rockets, each containing 10 pounds of VX nerve agent.

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How are rockets prepared for processing?

Each rocket is manually removed from the pallet and placed on the Rocket Metering Machine, where an automated check ensures that the rocket is in a "nose first" position. The rocket must be fed into the process nose first to assure proper cuts are made in the appropriate location. The Rocket Metering Machine transfers the rockets to the Rocket Input conveyor and into the Explosion Containment Vestibule where the rocket is staged (stored) prior to entering the Explosion Containment Room (ECR) for processing. The ECR is designed with walls three feet thick to contain any explosions that may occur during processing.

How is a rocket processed?

Once the rocket enters the Explosion Containment Room it is transferred onto the Rocket Shear Machine. The first step of the process is to punch three holes through the shipping and firing tube and into the rocket agent cavity at the Drain Station. The agent is drained from the rocket and transferred to an agent quantification tank to verify the amount of agent removed from the rocket. The agent is then transferred through the agent collection system to the agent holding tanks to be stored before treatment in the Liquid Incinerator (LIC).

After the agent is drained, the rocket proceeds to the Rocket Shear Station where it is chopped into eight pieces using a water-cooled shear blade to help prevent explosions. The first cut removes the first few inches of the nose, containing the fuse (igniter) of the rocket. The second, third, and fourth cuts chop the burster charge into smaller pieces. The fifth cut removes the solid rocket fuel igniter, and the sixth and seventh cuts chop the solid rocket fuel.

All of the pieces of the rocket are dropped down a feed chute into the Deactivation Furnace System (DFS) for treatment of the residual agent and the reactive (explosive) components of the rocket. Although the DFS is designed to withstand internal explosions, chopping the rockets into small pieces and controlling the way the pieces are fed into the DFS minimizes the chance of any significant explosions occurring in the furnace.

Where to get more information

Contact Shelly Ingram at the DEQ office in Hermiston, 256 East Hurlburt (Suite 105) or call (541) 567-8297 ext. 25 (toll-free in Oregon 1-800-452-4011).

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