

Utah Department of Environmental Quality
Division of Solid and Hazardous Waste
FACT SHEET



**Tooele Chemical Agent Disposal Facility
(TOCDF)
at Deseret Chemical Depot, Utah**

July 2010

The chemical munitions¹ at the Tooele Chemical Agent Disposal Facility (TOCDF) are dismantled and then the components are burned. The munitions' casing, agent, and the energetic material are typically incinerated separately.

TOCDF INCINERATORS

Two **Liquid Incinerators** (LIC) are used to destroy liquid chemical agents and spent decontamination solutions. Both LICs have a primary and a secondary combustion chamber and a pollution abatement system.

The **Metal Parts Furnace** (MPF) treats metal containers, such as bombs, after the chemical agent has been drained and the explosives are removed. The MPF is a direct-fired roller hearth furnace with an afterburner followed by a pollution abatement system.

The **Deactivation Furnace System** (DFS) incinerates rockets, mines and fuses, explosives, and propellants. The DFS is a rotary kiln with a cyclone and afterburner followed by a pollution abatement system.

The LICs, MPF, and DFS each have separate pollution abatement systems consisting of a quench tower, a venturi scrubber, a packedbed scrubber tower, and a demister. These incinerators share the same

exhaust stack called the common stack.

The **Heating, Ventilation, and Air Conditioning System** (HVAC) prevents contaminated air from escaping the TOCDF. The air filtration system protects workers and the environment by constantly moving air from areas without agent, to areas with agent, and then through six charcoal filters. This negative air pressure system provides both clean air for the workers and total containment of agent.

Monitoring

The incinerator and HVAC stacks and munitions handling areas are continuously monitored for the presence of agent. In the event of a release, the emergency plans will be executed as needed.

In addition, various incineration parameters (CO, O₂, temperature, pressure, etc.) are continuously monitored to ensure each incinerator is achieving good combustion conditions.

Generated Wastes

The incineration treatment process generates air-pollution-control scrubber brines, salts, ash residue, and metal parts. After the scrubber brine, salts, and ash are determined to be free of chemical agent, they are shipped to a hazardous waste disposal facility. The treated metal parts, free of chemical agent, may be sent to a steel smelter for

recycling.

Other Treatment Activities

Other treatment technology currently operated by EG&G is the Autoclave Drum Ventilation Sorting System Room used for secondary waste, and proposed Liquid Incinerator for Area 10 processing of Lewisite and GA chemical agent and the Explosive Detonation Technology (DAVINCH®) for leakers.

Additional Information

If you would like more detailed information or have questions please contact:

Tom Ball or Deborah Ng
DEQ / DSHW

P.O. Box 144880

Salt Lake City, UT 84114-4880

Telephone: 801-536-0200.

http://www.hazardouswaste.utah.gov/HWRanch/CDSection/CDS_PVA.htm

1 See Chemical Agents Fact Sheet

2 See Chemical Agent Munitions Disposal System Fact Sheet