

Hawthorne Army Depot (HWAD) Plasma Ordnance Demilitarization System Request for Variance Renewal

Fact Sheet

The Nevada Environmental Commission pursuant to NAC 444.8476 received a request on January 16, 2003, from Day & Zimmermann Hawthorne Corporation (DZHC), the operations contractor for the Hawthorne Army Depot, for **renewal** of a variance from NAC 444.8456(1)(d).

Because DZHC/HWAD wished to site the Plasma Ordnance Demilitarization System (PODS) at a location where the water table is shallower than 150 feet, they needed a variance from NAC 444.8456 1(d) to obtain the required certification of designation from Nevada Division of Environmental Protection (NDEP). This variance was pursued in accordance with NAC 444.847 through 444.8482. SEC approved this variance on February 10, 1998.

With this variance in place, NDEP approved a permit modification to construct and operate the PODS in August 2002. The PODS is currently under construction. In the meantime HWAD's Resource Conservation and Recovery Act (RCRA) Permit has expired and so did the above variance. In accordance with NAC 444.8482, the variance has to be renewed before the RCRA permit is renewed, hence the subject variance renewal request.

The PODS is an aboveground plasma arc incinerator unit with air pollution abatement equipment. Briefly, the process consists of a plasma arc torch reactor, afterburner, off-gas quencher, packed bed absorber, scrubber, demister, bag-house, and nitrogen oxide catalytic reactor.

Based on water level data from groundwater monitoring wells installed in the vicinity of the proposed PODS location at the WADF area, the water table is approximately 20-30 feet below ground surface. No drinking or supply water wells are located within 2 miles of the proposed location. The location is about 1.5 miles Southeast of Walker Lake and 4.5 miles North of Hawthorne.

The wastes to be treated are solid pyrotechnic munitions (e.g. smokes, flares), and do not contain liquids.

As part of the Resource Conservation and Recovery Act (RCRA) permit, all liquid reservoirs and lines (reagent and fuel feed tanks, scrubber water treatment system equipment and piping) have been designed to provide adequate secondary containment, leak detection, and high level alarms.

The basement of the PODS portion of Building 117-2 has been designed as a 12-inch deep containment area. All contaminated process liquid streams are installed within this containment area. A floor sump pumps all liquids from the basement containment area into the 2,500-gallon scrubber blowdown water tank, which is the feed tank for the scrubber water treatment system. All water is treated in the scrubber water treatment system before discharge to the evaporation pond.

HWAD/DZHC has an air permit for PODS from Bureau of Air Quality. Also, any air pollution control system effluent discharge will require approval from Bureau of Water Pollution Control. Such approval will require a demonstration by HWAD/DZHC that ground water will not be adversely affected.

NAC 444.8476 requires NDEP to make a recommendation to the SEC on variance requests. NDEP has made a favorable recommendation to the SEC, with the following conditions:

- HWAD/DZHC obtain applicable permits for all effluent discharges from BWPC prior to operation;
- Use of anhydrous ammonia (as feed for the nitrogen oxide catalytic reactor located outside PODS building) be reviewed and approved by Bureau of Waste Management or by Mineral County (under NRS 278.147).

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