

**Division of Water Quality
Utah Department of Environmental Quality
Public Notice of Issuance of Ground Water Discharge Permit
Permit No. UGW570002**

Purpose of Public Notice

The Utah Department of Environmental Quality (DEQ) is soliciting comments on the request to issue a ground water discharge permit described below under authority of the Utah Water Quality Act, Section 19-5-108(2) Utah Code Ann. 1953, as amended and Utah Administrative Code R317-6. Under Section 19-1-301.5, effective May 8, 2012, a person who wishes to challenge a Permit Order may only raise an issue or argument during an adjudicatory proceeding that was raised during the public comment period and was supported with sufficient information or documentation to enable the Director to fully consider the substance and significance of the issue. Utah Code Ann. 19-1-301.5 can be viewed at the following internet URL: http://le.utah.gov/~code/TITLE19/htm/19_01_030105.htm.

Permit Information

Permitte: Western Zirconium

Mailing Address: 10000 W 900 S
Ogden, UT 84404-9760

Facility Location: 12 Miles west of Ogden, Utah

Western Zirconium is an operating unit of Westinghouse Electric Company, located approximately 12 miles west of Ogden, Utah, that extracts zirconium and hafnium metals from raw materials and fabricates these metals into products used primarily by the nuclear fuels industry. Wastewater from these processes is discharged into evaporation lagoons located adjacent to the plant site, in a salt flats area near the Great Salt Lake. These lagoons were constructed in the late 1970s and early 1980s, before the Utah Ground Water Protection Regulations were adopted. They are considered “existing facilities” under the Regulations, and were not required to obtain a ground water discharge permit. Initially, the first ponds had synthetic flexible membrane liners, however, upwelling ground water caused the formation of large bubbles under the liners, and the liners had to be removed. These liners were replaced with one to two feet of compacted, low-permeability silt.

Since 1992, monitoring wells located adjacent to the lagoons have exhibited elevated concentrations of ammonia, radium and other constituents of the pond wastewater in the shallow ground water at the site. This contaminated ground water has also discharged to surface water in the salt flats area surrounding the lagoons and migrated away from the site. Consequently, on June 14, 1999 the Division of Water Quality (DWQ) issued a Notice of Violation and Order to Western Zirconium. The Order required Western Zirconium to conduct a Contaminant Investigation in accordance with sec. UAC R317-6-6.15(D) of the Ground Water Quality Protection Rules and to repair the ponds and liner to become compliant with UCA 19-5-107(2) of the Utah Water Quality Act and the original 1978 construction permit for the lagoons.

After investigation and consideration of alternatives, Western Zirconium proposed installing a subsurface barrier wall surrounding the ponds to minimize discharge to ground and surface water. In combination with a natural low-permeability clay layer underneath the ponds and the upward hydraulic gradient of the site’s ground water, this barrier wall should significantly cut off subsurface flow of wastewater from the ponds. DWQ issued a Construction Permit for the subsurface barrier wall on May 18, 2012, and construction began in October, 2012. Because this construction represents a major modification to an existing facility, Western Zirconium is required under UAC R317-6-6.1 to apply for a ground water discharge permit to operate the facility.

This permit is founded under the concept that the subsurface barrier wall effectively isolates the evaporation ponds from the surrounding ground and surface water. Compliance with permit conditions will be evaluated by monitored natural attenuation of the existing ground and surface water contamination. To demonstrate that the

barrier wall is functioning as designed, it is necessary to review different types of monitoring data from many different points, and assess site-wide conditions. Because of this, permit compliance will not be tied to numeric levels of contaminant concentrations at monitor points, but rather on a review of all relevant data needed to demonstrate barrier wall effectiveness.

Public Comments

Public comments are invited any time prior to **Monday, July 29, 2013**. Written comments may be directed to the Division of Water Quality (DWQ), P.O. Box 144870, Salt Lake City, UT 84114-4870. All comments received prior to close of business to **Monday, July 29, 2013**, will be considered in the formulation of final conditions to be imposed on the permit.

Additional Information

Additional information may be obtained upon request by contacting Mark Novak at (801) 536-4358 or mnovak@utah.gov or by writing to the aforementioned address. Related documents are available for review during normal business hours at DWQ, 195 North 1950 West in Salt Lake City or on the DWQ web page at <http://www.waterquality.utah.gov/PublicNotices/index.htm>.

In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Dana Powers, Office of Human Resources at (801) 536-4413, TDD (801) 536-4414.