



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF WATER QUALITY
Erica Brown Gaddis, PhD
Director

April 23, 2020

**Division of Water Quality
Utah Department of Environmental Quality
Public Notice of Issuance of Ground Water Discharge Permit
Permit No. UGW450012**

Purpose of Public Notice

The Utah Department of Environmental Quality (DEQ) is soliciting comments on the request to issue a groundwater discharge permit as described below. The ground water discharge permit is issued by the Director of the

Division of Water Quality under authority of the Utah Water Quality Act, Section 19-5-106(g) 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/xcode/Title19/Chapter1/19-1-S301.5.html>

Permit Information

Permittee: US Magnesium LLC

Mailing Address: 236 North 2200 West
Salt Lake City, UT 84116

Facility Location: 15 miles north of Exit 77 of I-80 in Rowley, Tooele County, Utah.

US Magnesium produces magnesium metal and chlorine byproducts from concentrated Great Salt Lake brine. Wastewater from the various processes used in the manufacture is highly acidic (low pH) and contains levels of chlorinated hydrocarbons and other organic compounds. This wastewater is currently stored in two diked, unlined impoundments located northeast of the plant site for disposal by evaporation. Dissolution of the carbonate-containing sediments that the impoundments are located upon has resulted in leaks of wastewater outside the pond dikes.

As a result of regulation by the US Environmental Protection Agency and the Utah Division of Waste Management and Radiation Control under the RCRA and CERCLA programs, US Magnesium must contain this wastewater in a way that minimizes threats to human health and the environment. The primary environmental threat posed by this wastewater is harm to the ecosystem of the salt flats and, potentially, the Great Salt Lake.

At present, US Magnesium plans to contain its wastewater by constructing a new evaporation pond in roughly the same footprint as the existing ponds, surrounded by a dike and a low-permeability subsurface Vertical Hydraulic

Barrier Wall (VHBW). The VHBW will be keyed in to a layer of sediment with low permeability that exists approximately 35 to 55 feet below ground surface. This will minimize discharge of wastewater to ground water and potentially to surface water. The amount of carbonate-containing sediment underneath the new pond, contained by the barrier wall, should be adequate to neutralize wastewater that seeps into the subsurface, for the life of the manufacturing plant. Under the CERCLA program, US Magnesium must develop a plan to prevent harmful releases of contaminants from the impoundment after facility closure.

This second version of the permit will impose conditions on US Magnesium to ensure that existing facilities, primarily the two diked evaporation ponds, are operated in a manner to minimize potential discharges to surface water. The permit contains several categories of information that must be obtained, or containment structures that must be constructed, before specified deadlines (compliance schedule items). As these compliance schedule items are completed, the permit will be modified to reflect better knowledge of site conditions, to regulate the operation of new containment facilities, and to monitor their performance. The intent of the permit is to eventually minimize discharge of wastewater to ground water and to prevent harm to the ecology of the salt flats environment and the Great Salt Lake. Permit conditions and their background are more fully explained in the draft permit and statement of basis which can be accessed on the DWQ web page cited below.

Public Comments

Public comments are invited any time prior to **Monday, June 22, 2020**. Written comments may be directed to the Division of Water Quality (DWQ), PO Box 144870, Salt Lake City, UT 84114-4870. All comments received prior to close of business to **Monday, June 22, 2020**, 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 Christopher L. Shope at (801) 536-4309 or cshope@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 <https://deq.utah.gov/division-water-quality>

In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Larene Wyss, Office of Human Resources at (801) 536-4284, TDD (801) 536-4284.