



# Fact Sheet

Aquifer Protection Permit  
 Place ID 100333, LTF 49736  
 TYPE 3.04 GENERAL PERMIT  
 CANYON MINE

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an authorization to discharge under a Type 3.04 General aquifer protection permit for the subject facility that is valid for 5 years, unless revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A307. This document gives pertinent information concerning the discharge authorization. The requirements contained in the general permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards; and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

## I. FACILITY INFORMATION

### Name and Location

Permittee's Name:	Denison Mines (USA) corp.
Mailing Address:	1050 17 <sup>th</sup> Street, Suite 950 Denver, CO 80265
Facility Name and Location:	Canyon Mine Tusayan (Coconino County), AZ

### Regulatory Status

A Notice of Intent to Discharge for a Type 3.04 General Permit with supporting application and information for the Canyon Mine was received by the Arizona Department of Environmental Quality on March 20, 2009. The Type 3.04 General Permit is for Non-Stormwater Impoundments at Mining Sites.

The following environmental permits are currently in existence for the Canyon Mine:

- 1) **Plan of Operations**, approved by the U.S. Department of the Interior, Bureau of Land Management, September 26, 1986.
- 2) **Septic System Permit No. 5918**. Authorized by the Coconino County Department of Health Services, December 17, 1986. under the **Type 1.09 General APP for Septic System**.

### **Facility Description**

The Canyon Mine site is located on the Coconino Plateau, approximately 6 miles southeast of the village of Tusayan in Coconino County, Arizona. The site encompasses an area of 15.3 acres on Kaibab National Forest land and extends across parts of three unpatented lode mining claims. Gulf Oil Corporation began initial exploration activities at the Canyon Mine in 1978. In 1982, Energy Fuels Nuclear acquired the property from Gulf Oil and continued exploration activities at the site.

In August 1986, the U.S. Forest Service published a final Environmental Impact Statement with a Finding of No Significant Impact for the proposed mining activities at the Canyon Mine site, and in September 1986 issued a Record of Decision approving the Plan of Operations at the Canyon Mine. In November 1986, Energy Fuels Nuclear began surface development of facilities at the mine site in accordance with the approved Plan of Operations. The surface facilities consist of:

- 1) Mine access shaft and head-frame
- 2) Maintenance shop/warehouse
- 3) Equipment (vehicle) wash pad
- 4) Septic system
- 5) Office building
- 6) Storage building
- 7) Water supply well
- 8) Water tank
- 9) Non-storm water impoundment

## **II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY**

The non-stormwater impoundment at the Canyon Mine has been designed to conform to the requirements of Arizona Administrative Code (A.A.C.) R18-9-A301(A)(3), R18-9-A301(B), and A.A.C. R18-9-D304. The permittee must comply with all design, installation, operation, monitoring, recordkeeping, reporting and closure requirements specified in this general permit and the attachments to this discharge authorization. The permittee must also comply with all other applicable requirements of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2 and Arizona Administrative Code (A.A.C.) Title 18, Chapter 9 including the General Provisions of Article 3.

## **III. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS**

### **Monitoring and Reporting Requirements**

On a voluntary basis, Denison agrees to conduct periodic sampling of water pumped from the underground mining areas at the Canyon mine. Denison will sample water pumped from the underground mining areas at the point the water discharges to the evaporation pond on a quarterly basis. Denison will report the results of the quarterly sampling on an annual basis to ADEQ. If the sampling results suggest that aquifer

water quality standards could be exceeded in groundwater, Denison will voluntarily increase the frequency of pumping to mitigate any risk to groundwater.

#### **IV. STORM WATER AND SURFACE WATER CONSIDERATIONS**

The mine site has a berm around the perimeter to direct storm water runoff from the site. The site has been designed so that surface water runoff from within the mine site will flow overland into the non-stormwater impoundment.

#### **VI. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT**

##### **Technical Capability**

Denison Mines (USA) Corp. has demonstrated the technical competence necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A202(B). Arizona registered geologists and professional engineers have sealed all necessary documents associated with this application for an Aquifer Protection Permit.

ADEQ requires that appropriate documents be sealed by an Arizona registered geologist or professional engineer. This requirement is a part of an on-going demonstration of technical capability. The permittee is expected to maintain technical capability throughout the life of the facility.

##### **Financial Capability**

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203(C). The permittee shall maintain financial capability throughout the life of the facility. The estimated closure and post-closure cost is \$30,000 and was demonstrated pursuant to A.A.C. R18-9-A203(C)(2). The closure and post-closure costs shall be evaluated and financial capability updated, if necessary, with each 5-year renewal.

##### **Zoning Requirements**

Mining activity of greater than 5 contiguous acres is exempt from zoning requirements pursuant to A.R.S. § 11-830.

#### **VIII. ADDITIONAL INFORMATION**

Additional information relating to this general permit may be obtained from:

Arizona Department of Environmental Quality  
Water Quality Division – APP & Drywell Unit  
Attn: Richard Mendolia  
1110 W. Washington St., Mail Code: 5415B-3  
Phoenix, Arizona 85007  
Phone: (602) 771- 4374