# PUBLIC NOTICE OF PROPOSED DETERMINATION TO ISSUE A CLASS IID UNDERGROUND INJECTION CONTROL (UIC) PERMIT MODIFICATION TO RESOLUTE NATURAL RESOURCES COMPANY

## **Purpose of Public Notice**

The U.S. Environmental Protection Agency Region IX (EPA) is soliciting public comments on its proposal to issue a major modification to Underground Injection Control (UIC) Permit No. NN207000002. The original permit was issued final to Resolute Natural Resources Company effective December 6, 2007, for the injection of produced water into the Aneth Unit C-113 LDVL (horizontal) Class II Disposal Well in the Mississippian Leadville formation. The well is located on the surface at 704 feet FNL and 1665 feet FEL of Section 13, Township 40S, Range 23E, San Juan County, Utah. Two of the four lateral boreholes (Nos. 2 and 3) drilled from the C-113 well vertical wellbore, partially underlie Navajo land (surface only) in Section 12, Township 40S, Range 23E and Section 7, Township 40S, Range 24E. Section 13 is federally owned land in its entirety, and the injection wells in that section are permitted and regulated by the State of Utah UIC program, including the vertical portion of the C-113 well and two of the lateral boreholes (Nos. 1 and 4) drilled from the C-113 wellbore. This permit modification applies to the EPA permit for the two lateral boreholes that underlie Navajo land. The company has submitted a complete application for the permit modification and EPA has completed the technical review of this application for a substantial increase in the authorized injection rate and volumes. This permit modification is applicable to those changes only and will be issued for a period of ten (10) years, to coincide with term of the original permit, and will be reviewed by EPA every five (5) years.

The address of the applicant is:

Patrick E. Flynn Environmental Health & Safety Manager Resolute Natural Resources Company 1675 Broadway, Suite 1950 Denver, Colorado 80202 Phone (303) 534-4600, ext. 145

#### **Background**

EPA has completed its review of the application for a major modification to the UIC permit issued for the Aneth Unit C-113 LDVL Class IID injection well, submitted by Resolute Natural Resources Company (Resolute). The applicant has applied for a permit modification to operate the well with an average injection rate of 25,000 barrels of water per day (BPD), or 775,000 barrels per month (BPM), and a maximum injection rate of 35,000 BPD on a daily basis. The original permit authorized an average injection rate of 7,500 BPD (228,000 BPM) and a maximum injection rate of 10,000 BPD on a daily basis, subject to a maximum allowable injection pressure of 3,800 psig (pounds per square inch gauge).

The purpose of the well is to inject produced water, which is directly associated with the production of oil and natural gas from the Aneth Unit oil wells, into the Leadville Formation within the subsurface

interval of 7,058 to 7,412 feet in depth. All of the Aneth Unit oil wells are completed in the Paradox Formation and are operated by Resolute. The initial average permitted injection rate is 25,000 BPD (775,000 BPM) and the maximum injection rate shall not exceed 35,000 BPD on a daily basis, subject to the maximum allowable injection pressure of 3,800 psig and a maximum cumulative injection volume of 52,155,000 barrels (14,289 BPD average rate) over the ten-year term of the permit. The average daily injection rate will decline over time so that the cumulative volume injected will not exceed 52,155,000 barrels.

The increase in injection rate will expand the zone of endangering influence (ZEI) to an estimated radius of 6.25 miles from the surface location of the well, based on a computer simulation of the reservoir pressure increase in the Leadville Formation resulting from the increased injection rate and volume over ten years. Consequently, the area of review (AOR) was increased to 6.25 miles and corrective action considerations were applied to the expanded AOR and to twelve (12) well penetrations within the AOR. We reviewed the well construction and plugging records for those wells and determined that all were constructed and/or plugged and abandoned in accordance with UIC requirements and are protective of underground sources of drinking water (USDWs). There are no drinking water wells in the expanded AOR that will be impacted by the increased injection rate in the Aneth Unit C-113 LDVL well. The extent of reservoir pressure increases will be monitored annually during the term of the permit and corrective actions will be required if USDWs are endangered by future pressure increases.

EPA has made a preliminary determination to approve this application for a permit modification. This action is being taken as provided by Part C of the Safe Drinking Water Act and pursuant to the Underground Injection Control Regulations, found in Title 40 of the Code of Federal Regulations (CFR) Parts 124, 144, 146, and 147.

#### **Public Comments**

All non-proprietary data submitted by the applicant and the Draft Permit Modification prepared by EPA are contained in the administrative record for this injection well. EPA's Statement of Basis and Draft Permit Modification are available for public inspection online at:

http://www.epa.gov/region9/water/groundwater/uic-permits.html, as well as at the locations listed below:

Farmington Public Library 2101 Farmington Ave Farmington, NM 87401 Phone 505-599-1270

United States Environmental Protection Agency, Region IX Ground Water Office, Mail Code WTR-9 75 Hawthorne Street San Francisco, CA 94105-3901

Phone 415-972-3541 or e-mail: <a href="mailto:harper.jim@epa.gov">harper.jim@epa.gov</a>

Public comments are encouraged and accepted, in writing, for a period of thirty (30) days after publication of the notice of preliminary decision on the permit modification.

A request for a public hearing may be made during the 30-day comment period. It should be in writing and should state the nature of the issues proposed to be raised at the hearing. A public hearing will be held only if significant interest is shown.

### **Final Permit Decision and Appeal Process**

After the close of the public comment period, EPA will issue a Final Permit Modification decision, and will notify all participants regarding this decision. The final decision will be to: issue, deny or modify the permit modification. The final decision shall become effective thirty (30) days after the Final Permit Modification is issued, unless no participant requests a change and no changes are made to the Draft Permit Modification, in which case the Draft Permit Modification shall become the Final Permit Modification, effective immediately upon issuance.

Within thirty (30) days after the Final Permit Modification decision has been issued, any person who has filed comments on the Draft Permit Modification, participated in a public hearing, or takes issue with any changes in the Draft Permit Modification, may petition the Environmental Appeals Board to review any condition of the permit decision. Participants are referred to the Safe Drinking Water Act for procedural requirements of the appeal process.