

United States Environmental Protection Agency (EPA), Region 10  
Office of Compliance and Enforcement (OCE-101) Ground Water Unit  
Underground Injection Control (UIC) Program  
1200 Sixth Avenue, Suite 900  
Seattle, Washington 98101

NOTICE OF PROPOSED ISSUANCE OF AN UNDERGROUND INJECTION CONTROL (UIC)  
CLASS I PERMIT FOR THE DISPOSAL OF NON-HAZARDOUS FLUIDS  
AT OOGURUK UNIT (OU), NUNA PROJECT, NORTH SLOPE, ALASKA

Public Notice Issuance Date: April 13, 2016  
Closure Date: May 13, 2016

1. Applicant

Caelus Natural Resources Alaska, LLC. (Caelus)  
3700 Centerpoint Drive, Suite 500  
Anchorage, Alaska 99503

EPA Permit Number: AK-1I0017-A

2. Background

The U.S. Environmental Protection Agency (EPA) has direct implementation responsibility in Alaska for the regulation of Class I injection wells through the Underground Injection Control (UIC) program, which is authorized by Part C of the Safe Drinking Water Act. Class I injection wells are used for the deep disposal of industrial waste (including camp wastewater) into naturally saline aquifers, beneath any aquifers which could serve as current or future underground sources of drinking water (USDWs).

The EPA is nearing a decision on issuance of a UIC Class I permit for the Nuna Project located near the Beaufort Sea in the North Slope Borough. The onshore Nuna drill site is located 250 miles above the Arctic Circle and forty (40) miles west of Deadhorse (Prudhoe Bay), Alaska. The proposed UIC well injection zones are located offshore below permafrost in the Oooguruk Unit (OU) 1.5 miles below ground surface (bgs).

Caelus has requested EPA to issue a Class I UIC permit that will be utilized for disposal of non-hazardous waste fluids including but not limited to fluids produced at the OU facilities. EPA is proposing to issue a Class I UIC permit to Caelus for drilling, construction and operation of up to two (2) Class I UIC wells in the OU for disposal of fluids that may include non-hazardous waste fluids, drilling muds and cuttings, stormwater, produced water, well workover fluids and camp wastewaters. The proposed injection zones include the Sag River Formation (SRF) and Ivishak Formation (IF). The well(s) will be drilled to 8,700 feet bgs.

The geologic setting at the OU location is very compatible with the proposed deep disposal process. The same geologic formations under OU have been successfully used to dispose of fluids in the OU area since 2007. The proposed EPA Class I permit limits injection to the existing and naturally saline injection intervals below permafrost in the IF and SRF at 7,400 (+/- 50 feet total vertical depth (TVD) in reference to kelly bushing (TVD(RKB)) to 8,700 +/- 50 feet TVD(RKB). The EPA determined on September 19, 2014, based on a review of data from six wells near OU, that specific portions of aquifers below permafrost in the IF and SRF near the proposed boreholes do not qualify under 40 Code of Federal

Regulations Section 144.3 as underground sources of drinking water (USDW), and the concentrations of total dissolved solids (TDS) far exceeds the 10,000 milligrams per liter (mg/l) maximum threshold required to qualify for an USDW.

EPA has considered available waste disposal options and determined that underground injection is the most appropriate disposal method for non-hazardous waste fluids and oilfield produced water. Class I injection wells are the most environmentally sound method for disposal of exempt and non-exempt waste fluids, including but not limited to treated effluent, and will meet the objective of minimum storage and zero discharge of oilfield production and domestic wastes to the surface waters of the North Slope and Beaufort Sea. Class I wells increase safety and reduce environmental risks by reducing handling and transportation activities and provide safe subsurface disposal in a controlled manner. Issuance of Caelus's Class I UIC Permit Number AK-11017-A will allow EPA to perform and maintain oversight and inspection of the wells.

3. Tentative Determination

EPA has tentatively determined to issue a 10 year UIC permit to the above listed applicant.

4. Public Comments

The Public Comment Period opens on the above referenced Public Notice Issuance Date and closes at 5 p.m. Pacific Daylight Time (PDT) on the above referenced Closure Date. Persons wishing to comment must do so in writing by the close of the Public Comment Period. All comments should include the name, address, and telephone number of the person commenting, a concise statement of the exact basis of any comment, and the relevant facts upon which it is based. All written comments and requests should be submitted to Thor Cutler of the UIC program at the above address or via E-mail to: [cutler.thor@epa.gov](mailto:cutler.thor@epa.gov).

5. Public Hearings

The EPA has tentatively scheduled a public hearing to be held on Friday, May 13, 2016 at 12 p.m. in the EPA Alaska Operations Office, Room 526A, Federal Building, located at 222 West 7th Avenue in Anchorage, Alaska. However, this hearing may be canceled in the absence of any specific written requests for such a hearing. Written requests for a hearing on the proposed permit re-issuance must be received by Thor Cutler at the above street address or via E-mail at [cutler.thor@epa.gov](mailto:cutler.thor@epa.gov) not later than May 6, 2016 at 5 p.m. PDT.

6. Administrative Record

Copies of the proposed UIC permit, fact sheet and permit application are on file and may be viewed at EPA's Regional Office Library located at 1200 Sixth Avenue, Seattle, WA between 9:30 a.m. and 3:30 p.m. PDT, Monday through Friday. Copies of the proposed permit and fact sheet may be requested from Thor Cutler at (206) 553-1673 or via e-mail: [cutler.thor@epa.gov](mailto:cutler.thor@epa.gov). Copies may also be obtained from the EPA Alaska Operations Office, Room 537, Federal Building, 222 West 7th Avenue, #19, Anchorage, AK (907) 271-5083 or through the Internet at <http://yosemite.epa.gov/r10/water.nsf/UIC/UIC+Program>.