

Official Draft Public Notice Version **May 23, 2016.**

The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

**FACT SHEET STATEMENT OF BASIS
RIM MINE
RENEWAL PERMIT
UPDES PERMIT NUMBER: UT0023922
MINOR INDUSTRIAL**

FACILITY CONTACT

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Facility Address: SW1/4 NW1/4 Section 29, T31S, R25E
San Juan County UT

DESCRIPTION OF FACILITY

Energy Fuel Resources (USA) Inc. owns and operates the Rim Mine, which is an underground uranium/vanadium mine. The water discharge treatment system is treated prior to surface discharge. The water discharge treatment system consists of addition of barium chloride to reduce radium. Mine water is pumped to a clay lined holding pond, then to the treatment building where a barium chloride solution is prepared and added to the mine water. The treated water flows to a second clay lined pond where settling of the solids occur. When the second pond is filled, water flows through a discharge pipe and is released at Outfall 001. The mine is located at SW ¼ NW ¼ Section 29 T31S R25E in San Juan County, Utah at latitude 38°03'51" and longitude 109°12'16". The facility has a Standard Industrial Classification (SIC) code 1094, for Uranium mining. The STORET number is 495906.

DISCHARGE

DESCRIPTION OF DISCHARGE

Outfall

001

Description of Discharge Point

Located at latitude 38°03'51" and longitude 109°12'16". The discharge is to an unnamed dry wash. The discharge would probably evaporate or seep into the ground

before it flowed the 2 miles to East Canyon Wash. It would then have to travel 10 miles before reaching the Hatch Wash and then to Kane Springs Creek.

RECEIVING WATERS AND STREAM CLASSIFICATION

The discharge may flow into Kane Springs Creek. Kane Springs Creek is Class 2B, 3C, and 4, according to *Utah Administrative Code (UAC) R317-2-13*:

- Class 2B - Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.
- Class 3C - Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.
- Class 4 - Protected for agricultural uses including irrigation of crops and stock watering.

BASIS FOR EFFLUENT LIMITATIONS

Effluent limits for total suspended solids (TSS), total uranium, total radium 226, dissolved radium 226, chemical oxygen demand (COD), and total zinc are technology based standards for uranium ore mines found in 40 CFR 440.32 and 440.33. The pH limit is based on current Utah Secondary Treatment standards. The total dissolved solids (TDS) concentration limit is based on the Utah Water Quality Standard provision of anti-backsliding. The oil & grease limit is based on best professional judgment.

Discharges from the facility could potentially reach the Colorado River, which places it under the requirements of the Colorado River Basin Salinity Control Forum (CRBSCF). TDS loading is limited by the CRBSCF pursuant to the February 1977 "Policy for Implementation of Colorado River Salinity Standards through the NPDES Permit Program" (Policy). In accordance with the CRBSCF, the effluent will be limited to a maximum discharge of 1.0 ton per day or 366 tons per year. The permit limitations are as follows:

Effluent Limitations			
Parameter	Monthly Average	Daily Minimum	Daily Maximum
TSS, mg/L	20	NA	30
Total Uranium, mg/L	2.0	NA	4.0
Total Radium 226, pCi/L	10	NA	30
Dissolved Radium 226, pCi/L	3	NA	10
COD, mg/L	100	NA	200
Total Zinc, mg/L	0.5	NA	1.0
Total Dissolved Solids, mg/L	NA	NA	1000
Total Dissolved Solids, tons/day a/	NA	NA	1.0
Oil & Grease, mg/L	NA	NA	10
pH, standard units	NA	6.5	9.0

NA – Not Applicable.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are similar to the previous permit. The permit will require reports to be submitted monthly and annually, as applicable, on Discharge Monitoring Report or NetDMR (DMR) no later than the 28th day of the month following the completed reporting period. Lab sheets for biomonitoring must be attached to the biomonitoring DMR.

Self-Monitoring and Reporting Requirements				
Parameter	Frequency	Sample Type	Units	Reporting Frequency
Total Flow	Continuous	Recorder	GPM	Monthly
TSS	Monthly	Grab	mg/L	Monthly
Total Uranium	Monthly	Grab	mg/L	Monthly
Total Radium 226	Monthly	Grab	pCi/L	Monthly
Dissolved Radium 226	Monthly	Grab	pCi/L	Monthly
COD	Monthly	Grab	mg/L	Monthly
Total Zinc	Monthly	Grab	mg/L	Monthly
TDS	Monthly	Grab	mg/L	Monthly
TDS	Monthly	Grab	ton/day	Monthly
Oil & Grease	Monthly	Grab	mg/L	Monthly
pH	Monthly	Grab	SU	Monthly

There shall be no visible sheen or floating solids or visible foam in other than trace amounts. There shall be no discharge of sanitary wastes.

The permittee is required to sample and submit the analysis of the pollutants listed in 40 CFR Part 122 Appendix D Table III (Other Toxic Pollutants (Metals and Cyanide) and Total Phenols) occurring from the first discharge of the facility once mining operation begin.

- a/ TDS will be limited to a maximum discharge of 1.0 ton per day or 366 tons per year, with daily maximum tonnages reported monthly. It is the permittee's responsibility to monitor and report the actual discharge of TDS for each monitoring period.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: at the outfall pipe of the final treatment prior to mixing with any receiving water.

WASTE LOAD ANALYSIS AND ANTIDegradation REVIEW

Effluent limitations are also derived using a waste load analysis (WLA), which is appended to this statement of basis. The WLA incorporates Secondary Treatment Standards, Water Quality Standards, Antidegradation Reviews (ADR), as appropriate and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet State water quality standards in the receiving waters. Effluent limits for ammonia and dissolved oxygen will not be included in this permit, as all drainages in the area are ephemeral, and the discharge would need to travel approximately 15 miles before entering any waterway.

During the UPDES permit development, a WLA and ADR were performed. An ADR Level I review was performed and the conclusion was that an ADR level II review was not required.

STORM WATER

According to Utah Administrative Code (UAC) R317-8-3.9 this facility will be required to maintain coverage under the UPDES multi-sector general permit for discharges associated with industrial activity, permit number UTR000000, sector G (Mineral Industry, SIC Major Group 10).

PRETREATMENT REQUIREMENTS

There is no discharge of process wastewater to any municipal wastewater treatment facility. Any process wastewater that the facility may discharge to the public sanitary sewer, either as direct discharge or as a hauled waste, is subject to federal, state and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated in 40 CFR Section 403, the State Pretreatment Requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

In addition, in accordance with 40 CFR 403.12(p)(1), the permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if they

discharge any substance into a POTW which if otherwise disposed of would be considered a hazardous waste under *40 CFR 261*. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring)*. Authority to require effluent biomonitoring is provided in *Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3 and Water Quality Standards, UAC R317-2-5 and R317 -2-7.2.*

Based on the distance from the discharge to a waterway, and that the facility is not classified as a major or a significant minor facility, there is no reasonable potential for toxicity from the Rim Mine's discharge to reach any waters of the state. As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

Drafted by
Matthew Garn, P.E.
Utah Division of Water Quality
March 30, 2016

PUBLIC NOTICE

Began:
Ended:
Public Noticed in The San Juan Record