Official Draft Public Notice Version **June 16, 2021**
The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

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

FACILITY CONTACTS

Person Name:	Scott Bakken	**Person Name:**	Kathy Weinel
Position:	Vice President, Regulatory Affairs	**Position:**	Quality Assurance Manager
Phone Number:	303.389.4132	**Phone Number:**	303.389.4134
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Person Name: Dawn Kolkman
Position: Permitting Manager
Phone Number: 307.232.6674
Email: dkolkman@energyfuels.com

Facility Name: Rim Mine
Mailing Address: 225 Union Blvd, Suite 600
Lakewood, CO 80228

Telephone: 303.389.4134
Actual Address: SW ¼ NW ¼ Section 29, T31S, R25E, San Juan County, UT
North of Monticello

DESCRIPTION OF FACILITY

Energy Fuel Resources (USA) Inc. owns and operates the Rim Mine, which is an underground uranium and vanadium ore mine. The monthly design discharge for the facility is 0.03 MGD. The discharge treatment system for this facility consists of a chemical precipitation with barium chloride. The intercepted mine water is pumped and mixed with barium chloride and then to an initial settling pond where barium chloride assists in radium reduction. Additional water treatment is provided by a second clay-lined settling pond where solids settling occur. When the second pond is filled, water flows through a discharge pipe and is released at the permitted discharge location of Outfall 001.

As noted in the permit renewal application, the Rim Mine continues to be in a non-operational status and no changes have occurred to the facility. The mine is located north of Monticello at SW ¼ NW ¼ Section 29 T31S R25E in San Juan County, Utah at latitude 38º03'51" and longitude 109º12'16". The facility Standard Industrial Classification (SIC) code 1094, for Uranium mining. The STORET number is 495906.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

The Rim Mine has not had a discharge since the issuance of the UPDES Permit Number UT0023922. DWQ's 2016 Integrated Report lists Kane Spring Wash from confluence with Colorado River to headwaters (assessment Unit UT4030005-001_00) as impaired (TMDL required) for total dissolved solids (Class 4) and temperature (Class 3C).

Effluent limits for TDS and temperature equal to the water quality criteria will ensure that in stream criteria will not be exceeded at the point of discharge as well as not causing or contributing to the existing impairment of downstream in Kane Springs Wash.

The potential parameters of concern identified for the discharge/receiving water were TDS and temperature as a result of the downstream receiving water having been impaired for these pollutants. TDS permit limit will remain the same as to be in line with other uranium mines. Temperature will have monitoring only requirements.

All other parameters permit limitations will remain the same since there is no data to verify the compliance of the UPDES permit. The Rim Mine 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. This UPDES permit may be reopened and the permit limits modified based on the analysis of these pollutants. Based on existing facilities with similar production processes and wastewater treatments, the Rim Mine is expected to be able to comply with the limitations.

DISCHARGE

DESCRIPTION OF DISCHARGE

Rim Mine has not had a discharge since November 2012.

Outfall	Description of Discharge Point
001	Located at latitude 38°03'51" and longitude 109°12'16". The discharge is to an unnamed dry wash. The discharge would evaporate or seep into the ground before flowing 2 miles to East Canyon Wash, 10 miles to Hatch Wash and then to Kane Springs Creek.

RECEIVING WATERS AND STREAM CLASSIFICATION

If a discharge were to occur, it would be pumped into an unnamed dry wash, which is a Class 2B, 3C, 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 the same as other uranium mining facility in the immediate area; is based on Best Professional Judgment (BPJ) and is more stringent than the Utah Water Quality Standards for TDS. The oil & grease limit is based on BPJ. Temperature monitoring requirement is based on the TMDL from 2016. The Rim Mine 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.

Total dissolved solids (TDS) limitations are based on the Colorado River Basin Salinity Control Forum (CRBSCF) for mass loading values when applicable as authorized in *UAC R317-2-4*. Regarding TDS loading, the CRBSCF Policy entitled "NPDES Permit Program Policy for Implementation of Colorado River Salinity Standards" (Policy), with the most current version dated October 2017, requires the TDS loading limitation of one-ton per day (or 366 tons per year) as a sum from all discharge points, unless the average concentration of TDS is 500 mg/L or less. If the concentration of TDS at any Outfall is less than or equal to 500 mg/L as a thirty-day average, then no loading limit applies for that Outfall. Those Outfalls exceeding 500 mg/L as a thirty-day average, collectively, need to meet the one-ton per day (or 366 tons per year) limit. If one-ton per day (or 366 tons per year) TDS cannot be achieved, then the permittee will be required to remove salinity/TDS in excess of one-ton per day (or 366 tons per year) by developing a treatment process, participating in a salinity off-set program, or developing some type of mechanism to remove the salinity/TDS. The selection of a salinity control program must be approved by the Director of the Division of Water Quality.

Reasonable Potential Analysis
Since January 1, 2016, DWQ has conducted reasonable potential analysis (RP) on all new and renewal applications received after that date. RP for this permit was not conducted due to lack of facility effluent data.

The permit limitations are:

Table 1

Parameter	Effluent Limitations [d, e]		
	Maximum Monthly Avg	Daily Minimum	Daily Maximum
Total Flow, MGD [b]	0.03	--	--
TSS, mg/L	20	--	30
Total Uranium, mg/L	2.0	--	4.0
Total Radium 226, pCi/L	10	--	30
Dissolved Radium 226, pCi/L	3	--	10
Gross Alpha, pCi/L	--	--	15
COD, mg/L	100	--	200
Total Zinc	0.5	--	1.0
Total Dissolved Solids, mg/L	--	--	1000
Total Dissolved Solids, tons/day [c]	--	--	1.0
Oil & Grease, mg/L [f]	--	--	10.0
pH, Standard Units	--	6.5	9.0

SELF-MONITORING AND REPORTING REQUIREMENTS
The self-monitoring requirements are the same as in the previous permit with the addition of Temperature monitoring. The permit will require reports to be submitted monthly on Discharge Monitoring Report (DMR) form (EPA No. 3320-1) or by NetDMR, post-marked or entered into NetDMR no later than the 28th day of the month following the completed reporting period.

Table 2				
Self-Monitoring and Reporting Requirements [a]				
Parameter	**Frequency**	**Sample Type**	**Units**	**Reporting Frequency**
Total Flow [b]	Continuous	Recorder	MGD	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
Gross Alpha	Monthly	Grab	pCi/L	Monthly
COD	Quarterly	Grab	mg/L	Quarterly
Total Zinc	Quarterly	Grab	mg/L	Quarterly
Total Dissolved Solids	Quarterly	Grab	mg/L	Quarterly
Total Dissolved Solids	Quarterly	Grab	tons/day	Quarterly
Oil & Grease	Quarterly	Grab	mg/L	Quarterly
pH	Monthly	Grab	Standard Units	Monthly
Temperature	Monthly	Grab	°F	Monthly

Table References

[a.] See Definitions, *Part VIII*, for definition of terms.
[b.] Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.
[c.] TDS will be limited to a maximum discharge of 1.0 ton per day or 366 tons per year, with daily maximum tonnage reported monthly. It is the permittee's responsibility to monitor and report the actual discharge of TDS for each monitoring period.
[d.] There shall be no discharge of floating solids or visible foam in other than trace amounts.
[e.] There shall be no discharge of sanitary wastes.
[f.] An Oil & Grease sample shall be taken when a sheen is visible.

End Table References

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. This UPDES permit may be reopened and the permit limits modified based on the analysis of these pollutants.

BIOSOLIDS

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, this facility does not receive, generate, treat or dispose of biosolids. Therefore 40 CFR 503 does not apply at this time.

STORM WATER

Separate storm water permits may be required based on the types of activities occurring on site.

Permit coverage under the Multi Sector General Permit (MSGP) for Storm Water Discharges from Industrial Activities is required based on the Standard Industrial Classification (SIC) code for the facility and the types of industrial activities occurring. If the facility is not already covered, it has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation. Previously storm water discharge requirements and coverage were combined in this individual permit. These have been separated to provide consistency among permittees, electronic reporting for storm water discharge monitoring reports, and increase flexibility to changing site conditions.

Permit coverage under the Construction General Storm Water Permit (CGP) is required for any construction at the facility which disturb an acre or more, or is part of a common plan of development or sale that is an acre or greater. A Notice of Intent (NOI) is required to obtain a construction storm water permit prior to the period of construction.

Information on storm water permit requirements can be found at http://stormwater.utah.gov

PRETREATMENT REQUIREMENTS

This facility does not discharge process wastewater to a sanitary sewer system. Any process wastewater that the facility may discharge to the sanitary sewer, either as a 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, found in 40 CFR 403, the state's 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, the DWQ 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 Utah Pollutant Discharge Elimination System Permit and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring), dated February 2018. 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.

The permittee is a minor industrial facility that will be discharging an infrequent amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. Also, the receiving water is listed as an unnamed ephemeral drainage. Based on these considerations, and the absence of receiving stream water quality monitoring data, there is no reasonable potential for toxicity in the permittee's discharge (per State of Utah Permitting and Enforcement Guidance Document for WET Control). 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 and Reviewed by
Sarah Ward, Discharge Permit Writer
Daniel Griffin, Biosolids
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Carl Adams, Storm Water
Lucy Parham, TMDL/Watershed
Suzan Tahir, Wasteload Analysis
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE

Began: Month Day, Year
Ended: Month Day, Year

Comments will be received at: 195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870

The Public Noticed of the draft permit was published on Utah Department of Environmental Quality's Public Notice website.

During the public comment period provided under R317-8-6.5, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments will be considered in making the final decision and shall be answered as provided in R317-8-6.12.

ADDENDUM TO FSSOB

During finalization of the Permit certain dates, spelling edits and minor language corrections were completed. Due to the nature of these changes they were not considered Major and the permit is not required to be re Public Noticed.

RESPONSIVENESS SUMMARY

(Explain any comments received and response sent. Actual letters can be referenced, but not required to be included).

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ATTACHMENT 1

Industrial Waste Survey

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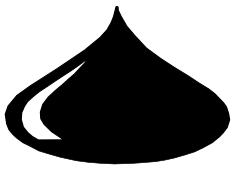
Industrial Pretreatment Wastewater Survey



Do you periodically experience any of the following treatment works problems:

foam, floaties or unusual colors
plugged collection lines caused by grease, sand, flour, etc.
discharging excessive suspended solids, even in the winter
smells unusually bad
waste treatment facility doesn't seem to be treating the waste right

Perhaps the solution to a problem like one of these may lie in investigating the types and amounts of wastewater entering the sewer system from industrial users.

An industrial user (IU) is defined as a non-domestic user discharging to the waste treatment facility which meets any of the following criteria:

1. **has a lot of process wastewater (5% of the flow at the waste treatment facility or more than 25,000 gallons per work day.)**

   Examples: Food processor, dairy, slaughterhouse, industrial laundry.

2. **is subject to Federal Categorical Pretreatment Standards**;

   Examples: metal plating, cleaning or coating of metals, blueing of metals, aluminum extruding, circuit board manufacturing, tanning animal skins, pesticide formulating or packaging, and pharmaceutical manufacturing or packaging,

3. **is a concern to the POTW.**

   Examples: septage hauler, restaurant and food service, car wash, hospital, photo lab, carpet cleaner, commercial laundry.

All users of the water treatment facility are **prohibited** from making the following types of discharges:

1. A discharge which creates a fire or explosion hazard in the collection system.

2. A discharge which creates toxic gases, vapor or fumes in the collection system.

3. A discharge of solids or thick liquids which creates flow obstructions in the collection system.

4. An acidic discharge (low pH) which causes corrosive damage to the collection system.

5. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause problems in the collection system or at the waste treatment facility.

6. Waste haulers are prohibited from discharging without permission. (No midnight dumping!)

When the solution to a sewer system problem may be found by investigating the types and amounts of wastewater entering the sewer system discharged from IUs, it's appropriate to conduct an Industrial Waste Survey.

An Industrial Waste Survey consists of:

Step 1: Identify Industrial Users

Make a list of all the commercial and industrial sewer connections.

Sources for the list:

business license, building permits, water and wastewater billing, Chamber of Commerce, newspaper, telephone book, yellow pages.

Split the list into two groups:

domestic wastewater only--no further information needed
everyone else (IUs)

Step 2: Preliminary Inspection

Go visit each IU identified on the "everybody else" list.

Fill out the **Preliminary Inspection Form** during the site visit.

Step 3: Informing the State

Please fax or send a copy of the Preliminary inspection form (both sides) to:

Jennifer Robinson

Division of Water Quality
288 North 1460 West
PO Box 144870
Salt Lake City, UT 84114-4870

Phone: (801) 536-4383
Fax: (801) 536-4301
E-mail: jenrobinson@utah.gov

PRELIMINARY INSPECTION FORM

INSPECTION DATE ___ / ____ /

Name of Business **Person Contacted** _____
Address _____ **Phone Number** _____

_____

Description of Business _____

Principal product or service: _____

Raw Materials used: _____

_____

Production process is: [ ] Batch [ ] Continuous [ ] Both

Is production subject to seasonal variation? [ ] yes [ ] no
If yes, briefly describe seasonal production cycle.

_____

This facility generates the following types of wastes (check all that apply):

1. [ ] Domestic wastes (Restrooms, employee showers, etc.)
2. [ ] Cooling water, non-contact **3. [ ] Boiler/Tower blowdown**
4. [ ] Cooling water, contact **5. [ ] Process**
6. [ ] Equipment/Facility washdown **7. [ ] Air Pollution Control Unit**
8. [ ] Storm water runoff to sewer **9. [ ] Other describe**

Wastes are discharged to (check all that apply):

[ ] Sanitary sewer **[ ] Storm sewer**
[ ] Surface water **[ ] Ground water**
[ ] Waste haulers **[ ] Evaporation**
[ ] Other (describe)
Name of waste hauler(s), if used

_____

Is a grease trap installed? Yes No
Is it operational? Yes No

Does the business discharge a lot of process wastewater?

- **More than 5% of the flow to the waste treatment facility? Yes No**
- **More than 25,000 gallons per work day? Yes No**

Does the business do any of the following:

[ ] Adhesives
[ ] Aluminum Forming
[ ] Battery Manufacturing
[ ] Copper Forming
[ ] Electric & Electronic Components
[ ] Explosives Manufacturing
[ ] Foundries
[ ] Inorganic Chemicals Mfg. or Packaging
[ ] Industrial Porcelain Ceramic Manufacturing
[ ] Iron & Steel
[ ] Metal Finishing, Coating or Cleaning
[ ] Mining
[ ] Nonferrous Metals Manufacturing
[ ] Organic Chemicals Manufacturing or Packaging
[ ] Paint & Ink Manufacturing
[ ] Pesticides Formulating or Packaging
[ ] Petroleum Refining
[ ] Pharmaceuticals Manufacturing or Packaging
[ ] Plastics Manufacturing
[ ] Rubber Manufacturing
[ ] Soaps & Detergents Manufacturing
[ ] Steam Electric Generation
[ ] Tanning Animal Skins
[ ] Textile Mills

[ ] Car Wash
[ ] Carpet Cleaner
[ ] Dairy
[ ] Food Processor
[ ] Hospital
[ ] Laundries
[ ] Photo Lab
[ ] Restaurant & Food Service
[ ] Septage Hauler
[ ] Slaughter House

Are any process changes or expansions planned during the next three years? Yes No
If yes, attach a separate sheet to this form describing the nature of planned changes or expansions.

_____
Inspector

_____
Waste Treatment Facility

Please send a copy of the preliminary inspection form (both sides) to:

Jennifer Robinson
Division of Water Quality
PO Box 144870
Salt Lake City, Utah 84114-4870

Phone: **(801) 536-4383**
Fax: **(801) 536-4301**
E-Mail: **jenrobinson@utah.gov**

	Industrial User	Jurisdiction	SIC Codes	Categorical Standard Number	Total Average Process Flow (gpd)	Total Average Facility Flow (gpd)	Facility Description
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

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ATTACHMENT 2

Wasteload Analysis

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ATTACHMENT 4

Reasonable Potential Analysis

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REASONABLE POTENTIAL ANALYSIS

Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. A Copy of the Reasonable Potential Analysis Guidance (RP Guide) is available at water Quality. There are four outcomes for the RP Analysis[1]. They are;

Outcome A:	A new effluent limitation will be placed in the permit.
Outcome B:	No new effluent limitation. Routine monitoring requirements will be placed or increased from what they are in the permit,
Outcome C:	No new effluent limitation. Routine monitoring requirements maintained as they are in the permit,
Outcome D:	No limitation or routine monitoring requirements are in the permit.

RP for this permit was not conducted due to lack of facility effluent data.

[1] See Reasonable Potential Analysis Guidance for definitions of terms