

STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMITS

Major (or Minor) Municipal (or Industrial) Permit No. **UT0025712**

In compliance with provisions of the Utah *Water Quality Act, Title 19, Chapter 5, Utah Code* (the "Act"),

ENERGY FUELS RESOURCES (USA), INC.

is hereby authorized to discharge from

ENERGY QUEEN MINE

to receiving waters named **WEST COYOTE WASH,**

in accordance with specific limitations, outfalls, and other conditions set forth herein.

This permit shall become effective on April 1, 2024

This permit expires at midnight on March 31, 2029.

Signed this twenty-ninth day of March, 2024.



John K. Mackey, P.E.
Director

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I. DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS

A. Description of Discharge Points. The authorization to discharge wastewater provided under this part is limited to those outfalls specifically designated below as discharge locations. Discharges at any location not authorized under a UPDES permit are violations of the *Act* and may be subject to penalties under the *Act*. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge may be subject to criminal penalties as provided under the *Act*.

<u>Outfall Number(s)</u>	<u>Location of Discharge Outfall(s)</u>
001	Located at <u>latitude</u> 38°18'45" and longitude 109°18'30". Discharge would be from the mine water treatment system into West Coyote Wash
002	Located at <u>latitude</u> 38°18'45" and longitude 109°18'45". Discharge would be from the mine water treatment system into West Coyote Wash
003	Located at <u>latitude</u> 38°18'45" and longitude 109°19'00". Discharge would be from the mine water treatment system into West Coyote Wash

B. Narrative Standard. It shall be unlawful, and a violation of this permit, for the permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum, or other nuisances such as color, odor or taste, or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by a bioassay or other tests performed in accordance with standard procedures.

C. Specific Limitations and Self-Monitoring Requirements.

1. Effective immediately, and lasting through the life of this permit, there shall be no acute or chronic toxicity in Outfall(s) 001, 002, and 003, as defined in *Part VIII*, and determined by test procedures described in *Part I. C.3.a & b* of this permit.
2.
 - a. Effective immediately and lasting the duration of this permit, the permittee is authorized to discharge from Outfall 001, 002, and 003. Such discharges shall be limited and monitored by the permittee as specified below:

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WASTEWATER

Parameter	Effluent Limitations *a, *b, *c		
	Maximum Monthly Avg	Daily Minimum	Daily Maximum
Total Flow	0.5	--	--
TSS, mg/L	20	--	30
Dissolved Uranium, mg/L	2.0	--	4.0
Total Radium 226, pCi/L	10	--	30
Dissolved Radium 226, pCi/L	3	--	10
COD, mg/L	100	--	200
Total Zinc, mg/L	0.5	--	1.0
Oil & Grease, mg/L *d	--	--	10.0
pH, Standard Units	--	6.5	9
TDS, mg/L	--	--	1000
TDS, tons/day *e	Report	--	1.0

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

*a See Definitions, *Part VIII*, for definition of terms.

*b There shall be no discharge of floating solids or visible foam other than trace amounts.

*c There shall be no discharge of sanitary wastes.

*d An oil and grease sample shall be taken when a sheen is visible.

*e daily maximum tonnages reported monthly. It is the permittee's responsibility to monitor and report the actual discharge of TDS for each monitoring period.

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

D. Reporting of Monitoring Results.

1. Reporting of Wastewater Monitoring Results Monitoring results obtained during the previous month shall be summarized for each month and reported on a Discharge Monitoring Report 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. The first report is due on April 28, 2024. If no discharge occurs during the reporting period, “no discharge” shall be reported. Legible copies of these, and all other reports including whole effluent toxicity (WET) test reports required herein, shall be signed and certified in accordance with the requirements of *Signatory Requirements (see Part VII.G)*, and submitted by NetDMR, or to the Division of Water Quality at the following address:

Department of Environmental Quality
Division of Water Quality
PO Box 144870
Salt Lake City, Utah 84114-4870

* Starting January 1, 2017 monitoring results must be submitted using NetDMR unless the permittee has successfully petitioned for an exception.

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PRETREATMENT

II. PRETREATMENT REQUIREMENTS

- A. Discharge to POTW. Any wastewaters discharged to a Publicly Owned Treatment Works (POTW), as an Indirect Discharge, which includes hauled waste, are subject to Federal, State and local Pretreatment Standards and Pretreatment Requirement. Pursuant to Section 307 of The Water Quality Act of 1987, the permittee shall comply 40 CFR Section 403, the *Utah Administrative Code R317-8-8*, and any Pretreatment Standards and Pretreatment Requirement developed by the POTW accepting the wastewater. At a minimum the discharge, into a POTW, must meet the requirements of Part II of the permit.
- B. Hazardous Waste Notification. 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).
- C. General and Specific Prohibitions.
1. General Prohibitions. The permittee may not introduce into a POTW any pollutant(s) which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in paragraph 2. of this section apply to the introducing pollutants into a POTW whether or not the permittee is subject to other National Pretreatment Standards or any national, State, or local Pretreatment Standard and Pretreatment Requirement.
 2. Specific Prohibitions. The following pollutants shall not be introduced into a POTW:
 - a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140°F (60°C);
 - b. Pollutants, which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0;
 - c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;
 - d. Any pollutant, including oxygen demanding pollutants (BOD, etc.), released in a discharge at such volume or strength as to cause interference in the POTW;
 - e. Heat in amounts, which will inhibit biological activity in the POTW, resulting in interference, but in no case, heat in such quantities that the influent to the sewage treatment works exceeds 104°F (40°C));
 - f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
 - g. Pollutants, which result in the presence of toxic gases, vapor, or fumes within the POTW in a quantity that may cause worker health or safety problems;
 - h. Any trucked or hauled pollutants, except at discharge points designated by the POTW; or
 - i. Any pollutant that causes pass through or interference at the POTW.
 - j. Any specific pollutant which exceeds any local limitation established by the POTW.
- D. Definitions. For this section the following definitions shall apply:

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1. *Indirect Discharge* means the introduction of pollutants into a publicly-owned treatment works (POTW) from any non-domestic source regulated under section 307 (b), (c) or (d) of the CWA.
2. *Interference* means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:
 - a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
 - b. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.
3. *Pass Through* means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).
4. *Publicly Owned Treatment Works* or *POTW* means a treatment works as defined by section 212 of the CWA, which is owned by a State or municipality (as defined by section 502(4) of the CWA). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the CWA, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.
5. *Significant industrial user (SIU)* is defined as an industrial user discharging to a POTW that satisfies any of the following:
 - a. Has a process wastewater flow of 25,000 gallons or more per average work day;
 - b. Has a flow greater than five percent of the flow carried by the municipal system receiving the waste;
 - c. Is subject to Categorical Pretreatment Standards, or
 - d. Has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.
6. *User or Industrial User (IU)* means a source of Indirect Discharge.

III. BIOSOLIDS REQUIREMENTS

The State of Utah has adopted the *40 CFR Part 503* federal regulations for the disposal of sewage sludge (biosolids) by reference. However, since this facility 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, there is not any regular sludge production. Therefore *40 CFR Part 503* does not apply at this time. In the future, if the sludge needs to be removed from the lagoons and is disposed in some way, the Division of Water Quality must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met.

IV. STORM WATER REQUIREMENTS.

- A. Industrial Storm Water Permit. Based on the type of industrial activities occurring at the facility, the permittee is required to maintain separate coverage or an appropriate exclusion under the Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Industrial Activities (UTR000000). If the facility is not already covered, the permittee has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation.

V. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Samples of biosolids shall be collected at a location representative of the quality of biosolids immediately prior to the use-disposal practice.
- B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under Utah Administrative Code ("UAC") R317-2-10, UAC R317-8-4.1(10)(d), and/or 40 CFR 503 utilizing sufficiently sensitive test methods unless other test procedures have been specified in this permit. Monitoring must be conducted according to the test procedures listed above unless another method is required under 40 CFR subchapters N or O. Sufficiently sensitive test method means: (1) The method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or (2) The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter as per 40 CFR 122.44(i)(1)(iv)(A).
- C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- E. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under *UAC R317-2-10* and *40 CFR Part* or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or the Biosolids Report Form. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.
- F. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) and time(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and,
 6. The results of such analyses.
- G. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location
- H. Twenty-four Hour Notice of Noncompliance Reporting.

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1. The permittee shall (orally) report any noncompliance including transportation accidents, spills, and uncontrolled runoff from biosolids transfer or land application sites which may seriously endanger health or environment, as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of circumstances. The report shall be made to the Division of Water Quality (DWQ) via the 24-hour answering service (801) 536-4123.
2. The following occurrences of noncompliance shall initially be reported by telephone to the DWQ via the 24-hour answering service as soon as possible but no later than 24 hours from the time the permittee becomes aware of the circumstances:
 - a. Any noncompliance which may endanger health or the environment;
 - b. Any unanticipated bypass, which exceeds any effluent limitation in the permit (See *Part VI.G, Bypass of Treatment Facilities.*);
 - c. Any upset which exceeds any effluent limitation in the permit (See *Part VI.H, Upset Conditions.*);
 - d. Violation of a daily discharge limitation for any of the pollutants listed in the permit. For other permit violations which will not endanger health or the environment, DWQ may otherwise be notified during business hours (801) 536-4300; or,
 - e. Violation of any of the Table 3 metals limits, the pathogen limits, the vector attraction reduction limits or the management practices for biosolids that have been sold or given away.
3. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected;
 - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and,
 - e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.
4. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Division of Water Quality, (801) 536-4300.
5. Reports shall be submitted to the addresses in *Part I.D, Reporting of Monitoring Results.*
- I. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for *Part I.D* are submitted. The reports shall contain the information listed in *Part V.H.3*
- J. Inspection and Entry The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

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1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, including but not limited to, biosolids treatment, collection, storage facilities or area, transport vehicles and containers, and land application sites;
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the *Act*, any substances or parameters at any location, including, but not limited to, digested biosolids before dewatering, dewatered biosolids, biosolids transfer or staging areas, any ground or surface waters at the land application sites or biosolids, soils, or vegetation on the land application sites; and,
5. The permittee shall make the necessary arrangements with the landowner or leaseholder to obtain permission or clearance, the Director, or authorized representative, upon the presentation of credentials and other documents as may be required by law, will be permitted to enter without delay for the purposes of performing their responsibilities.

PART VI
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VI. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of *the Act* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.
- B. Penalties for Violations of Permit Conditions. The *Act* provides that any person who violates a permit condition implementing provisions of the *Act* is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions or *the Act* is subject to a fine not exceeding \$25,000 per day of violation. Any person convicted under *The Act Section 19-5-115(2)* a second time shall be punished by a fine not exceeding \$50,000 per day. Except as provided at *Part VI.G, Bypass of Treatment Facilities* and *Part VI.H, Upset Conditions*, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
- C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or prevent any land application in violation of this permit.
- E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances. Collected screening, grit, solids, sludge, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state by any other direct route.
- G. Bypass of Treatment Facilities.
1. Bypass Not Exceeding Limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to paragraph 2 and 3 of this section.
 2. Prohibition of Bypass.
 - a. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

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- (1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and
 - (3) The permittee submitted notices as required under *Part VI.G.3*.
- b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed in *Parts VI.G.2.a (1), (2) and (3)*.
3. Notice.
- a. *Anticipated bypass.* Except as provided above in *Part VI.G.2* and below in *Part VI.G.3.b*, if the permittee knows in advance of the need for a bypass, it shall submit prior notice, at least ninety days before the date of bypass. The prior notice shall include the following unless otherwise waived by the Director:
 - (1) Evaluation of alternative to bypass, including cost-benefit analysis containing an assessment of anticipated resource damages;
 - (2) A specific bypass plan describing the work to be performed including scheduled dates and times. The permittee must notify the Director in advance of any changes to the bypass schedule;
 - (3) Description of specific measures to be taken to minimize environmental and public health impacts;
 - (4) A notification plan sufficient to alert all downstream users, the public and others reasonably expected to be impacted by the bypass;
 - (5) A water quality assessment plan to include sufficient monitoring of the receiving water before, during and following the bypass to enable evaluation of public health risks and environmental impacts; and,
 - (6) Any additional information requested by the Director.
 - b. *Emergency Bypass.* Where ninety days advance notice is not possible, the permittee must notify the Director, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Director the information in *Part VI.G.3.a.(1) through (6)* to the extent practicable.
 - c. *Unanticipated bypass.* The permittee shall submit notice of an unanticipated bypass to the Director as required under *Part IV.H, Twenty Four Hour Reporting*. The permittee shall also immediately notify the Director of the Department of Natural

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Resources, the public and downstream users and shall implement measures to minimize impacts to public health and environment to the extent practicable.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph 2 of this section are met. Director's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is initiated for noncompliance.
2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required under *Part V.H, Twenty-four Hour Notice of Noncompliance Reporting*; and,
 - d. The permittee complied with any remedial measures required under *Part VI.D, Duty to Mitigate*.
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of *The Water Quality Act of 1987* for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Executive Secretary as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. One hundred micrograms per liter (100 ug/L);
 - b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(7)* or (10); or,
 - d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

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2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. Five hundred micrograms per liter (500 ug/L);
 - b. One milligram per liter (1 mg/L) for antimony;
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(9)*; or,
 - d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

PART VII
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VII. GENERAL REQUIREMENTS

- A. Planned Changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in Section R317-8-8; or
 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit nor to notification requirements under Subsection R317-8-4.1(15).
 3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. The permittee shall give notice to the Director of any planned changes at least 30 days prior to their implementation.
- B. Anticipated Noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.
- C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.
- E. Duty to Provide Information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts or information.
- G. Signatory Requirements. All applications, reports or information submitted to the Director shall be signed and certified.
1. All permit applications shall be signed by either a principal executive officer or ranking elected official. A person is a duly authorized representative only if:

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DISCHARGE PERMIT NO. UT0025712

- a. The authorization is made in writing by a person described above and submitted to the Director, and,
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
 - (1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
 - (b) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or
 - (3) For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (a) The chief executive officer of the agency, or
 - (b) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person.
 3. Changes to authorization. If an authorization under *paragraph VII.G.2* is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of *paragraph*

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VII.G.2. must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section shall make the following certification:
- "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- H. Penalties for Falsification of Reports. The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.
- I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Director. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential.
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the *Act*.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
1. The current permittee notifies the Director at least 20 days in advance of the proposed transfer date;
 2. The notice includes a written agreement between the existing and new permittee's containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
 3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received,

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the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.

- N. State or Federal Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *Sections 19-5-117 and 510 of the Act* or any applicable Federal or State transportation regulations, such as but not limited to the Department of Transportation regulations.
- O. Water Quality - Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:
1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
 2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.
 3. Revisions to the current CWA § 208 areawide treatment management plans or promulgations/revisions to TMDLs (40 CFR 130.7) approved by the EPA and adopted by DWQ which calls for different effluent limitations than contained in this permit.
- P. Biosolids – Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate biosolids limitations (and compliance schedule, if necessary), management practices, other appropriate requirements to protect public health and the environment, or if there have been substantial changes (or such changes are planned) in biosolids use or disposal practices; applicable management practices or numerical limitations for pollutants in biosolids have been promulgated which are more stringent than the requirements in this permit; and/or it has been determined that the permittees biosolids use or land application practices do not comply with existing applicable state or federal regulations.

Toxicity Limitation - Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include WET testing, a WET limitation, a compliance schedule, a compliance date, additional or modified numerical limitations, or any other conditions related to the control of toxicants if toxicity is detected during the life of this permit.

VIII. DEFINITIONS

A. Wastewater.

1. The "7-day (and weekly) average", other than for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week, which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains Saturday.
2. The "30-day (and monthly) average," other than for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
3. "Act," means the *Utah Water Quality Act*.
4. "Acute toxicity" occurs when 50 percent or more mortality is observed for either test species at any effluent concentration (lethal concentration or "LC₅₀").
5. "Bypass," means the diversion of waste streams from any portion of a treatment facility.
6. "Chronic toxicity" occurs when the IC₂₅ < 99.9% effluent. The 99.9% effluent is the concentration of the effluent in the receiving water, at the end of the mixing zone expressed as per cent effluent.
7. "IC₂₅" is the concentration of toxicant (given in % effluent) that would cause a 25% reduction in mean young per female, or a 25% reduction in overall growth for the test population.
8. "Composite Samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
 - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;

PART VIII
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- c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every “X” gallons of flow); and,
 - d. Continuous sample volume, with sample collection rate proportional to flow rate.
9. “CWA” means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.
10. “Daily Maximum” (Daily Max.) is the maximum value allowable in any single sample or instantaneous measurement.
11. “EPA,” means the United States Environmental Protection Agency.
12. “Director,” means Director of the Division of Water Quality.
13. A “grab” sample, for monitoring requirements, is defined as a single “dip and take” sample collected at a representative point in the discharge stream.
14. An “instantaneous” measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.
15. “Severe Property Damage,” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
16. “Upset,” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

**FACT SHEET AND STATEMENT OF BASIS
ENERGY QUEEN MINE
RENEWAL PERMIT: DISCHARGE
UPDES PERMIT NUMBER: UT0025712MINOR INDUSTRIAL**

FACILITY CONTACTS

Person Name: Scott Bakken, P.G. Director
Position: Permitting & Environmental Affairs
Phone Number: (303) 389-4156

Permittee: Energy Fuels Resources (USA), Inc
Facility Name: Energy Queen Mine
Mailing Address: 225 Union Boulevard, Suite 600
Lakewood, CO 80228

Actual Address: 560 E Highway 46
La Sal, UT 84535

DESCRIPTION OF FACILITY

Energy Fuel Resources (USA), Inc. leases and operates the Energy Queen Mine (Mine), which is an underground uranium and vanadium mine. The discharge treatment system for this facility consists of a chemical precipitation process with barium chloride. The intercepted mine water is pumped and mixed with barium chloride and then up to an initial treatment pond where the barium chloride assists in Radium reduction. While the Mine is permitted to discharge to West Coyote Wash, Outfalls 001, 002, and 003 have been inactive since August 2021. The mine is located at 560 E. Highway 46, La Sal, UT 84535 in San Juan County, Utah at latitude 38°18'45" and longitude 109°18'30". The facility has a Standard Industrial Classification (SIC) code 1094, for Uranium mining.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

All limitations will remain the same as those in the previous permit. Based on the capacity of the existing treatment facility upon any future discharges, Energy Queen Mine is expected to be able to comply with the limitations.

Previously, storm water discharge requirements and coverage were included in UPDES individual permits. These have now been separated to provide consistency among permittees, electronic reporting for storm water discharge monitoring reports, and increased flexibility to adapt to changing site conditions. Permit coverage under the Multi Sector General Permit (MSGP) for Storm Water Discharges from Industrial Activities may or may not be required based on the Standard Industrial Classification (SIC) code for the Mine and the types of industrial activities occurring, if any. If the Mine has not already determined if separate MSGP coverage is required, it has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or apply for a No Exposure Certification.

The receiving water is now classified as a Class 1C, 2B, 3C, and 4 Waters of the State.

DISCHARGE

DESCRIPTION OF DISCHARGE

The Energy Queen Mine is an existing, but inactive mine, which has not had a discharge of mine water for over 25 years. The Mine has been consistently reporting self-monitoring results on Discharge Monitoring Reports, via NetDMR on a monthly basis as required. There have been no discharges and no significant permit violations during the past five-year term. If Permittee decides to start operation, they must notify the Division of Water Quality six months in advance.

<u>Outfall</u>	<u>Description of Discharge Point</u>
001	Located at latitude 38°18'45" and longitude 109°18'30". Discharge would be from the mine water treatment system into West Coyote Wash.
002	Located at latitude 38°18'45" and longitude 109°18'45". Discharge would be from the mine water treatment system into West Coyote Wash.
003	Located at latitude 38°18'45" and longitude 109°19'00". Discharge would be from the mine water treatment system into West Coyote Wash.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge is to an unnamed dry wash, which is a tributary of the ephemeral West Coyote Creek, a tributary of ephemeral Hatch Wash, a tributary of Kane Springs Creek, a tributary of the Colorado River. Per Utah Administrative Code (UAC) R317-2-13, the designated beneficial use of the affected assessment unit in the immediate area is (13.1): "*Kane Canyon Creek and tributaries, from confluence with Colorado River to headwaters*" is classified 2B, 3C, 4. Since Kane Creek drains to the Colorado River, which is classified with 1C, the 1C criteria is included in the limits in order to ensure the protection of downstream sources.

- Class 1C – Protected for domestic purposes with prior treatment processes as required by the Utah Division of Drinking Water
- Class 2B – Protected for secondary contact recreation such as boating, wading, or similar uses.
- 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.

TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

According to the Utah's Final 2022 Integrated Report on Water Quality dated December 9, 2022, the receiving water for the discharge, "Kane Canyon Creek and tributaries, from confluence with Colorado River to headwaters (Kane Springs Wash: UT14030005-001_00)" was listed as "Not Supporting" for Temperature and Total Dissolved Solids (TDS). DWQ has not completed a TMDL for Temperature nor Total Dissolved Solids in Kane Canyon Creek and has set the development priority as "Low".

Effluents 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 downstream in Kane Springs Wash.

BASIS FOR EFFLUENT LIMITATIONS

Effluent limitations 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 440.31 and 440.33. The pH limit is based on current Utah Secondary Treatment standards. The oil & grease limit is based on best professional judgement (BPJ) and is consistent with other industrial permitted facilities in Utah.

Total dissolved solids (TDS) limitations are based upon Utah Water Quality Standards for concentration values and the Colorado River Basin Salinity Control Forum (CRBSCF) for mass loading values when applicable as authorized in *UAC R317-2-4*. Discharges from the Mine could potentially reach the Colorado River, which places it under the requirements of the CRBSCF. In accordance with the CRBSCF policies, the effluent will be limited to a maximum discharge of 1.0 ton per day or 366 tons per year. The TDS concentration limit is the same as similar uranium mining facilities in the immediate area and is based on BPJ, which is more stringent than the Utah Water Quality Standard of 1,200 mg/L for TDS.

Effluent limitations may also be derived using a Wasteload Analysis (WLA). The WLA incorporated 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. During the UPDES renewal development, a WLA and ADR were performed. An ADR Level I review was performed and concluded that an ADR Level II review was not required. It has been determined that this discharge will not cause a violation of water quality standards. An Anti-degradation Level II review is not required since the Level I review shows that water quality impacts are minimal. The permittee is expected to be able to comply with these limitations. The WLA indicates that the effluent limitations should be sufficiently protective of water quality, in order to meet State water quality standards in the receiving waters.

REASONABLE POTENTIAL ANALYSIS

Since January 1, 2016, DWQ has conducted reasonable potential (RP) analysis on all new and renewal applications received after that date following DWQ's September 10, 2015 Reasonable Potential Analysis Guidance (RP Guidance). A formal RP analysis for this permit renewal was not conducted because there has been a lack of discharge data from the Mine, which currently remains inactive. Once the Mine begins operating and discharging regularly, a qualitative RP analysis can then be performed on subsequent permit renewals as appropriate.

The permit limitations are as follows:

Parameter	Effluent Limitations *a, *b, *c		
	Maximum Monthly Avg	Daily Minimum	Daily Maximum
Total Flow	0.5	--	--
TSS, mg/L	20	--	30
Dissolved Uranium, mg/L	2.0	--	4.0
Total Radium 226, pCi/L	10	--	30
Dissolved Radium 226, pCi/L	3	--	10
COD, mg/L	100	--	200
Total Zinc, mg/L	0.5	--	1.0
Oil & Grease, mg/L *e	--	--	10.0
pH, Standard Units	--	6.5	9
TDS, mg/L	--	--	1000
TDS, tons/day *d	Report	--	1.0

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are the same as in the previous permit. The permit will require reports to be submitted monthly and annually, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period. Effective January 1, 2017, monitoring results must be submitted using NetDMR unless the permittee has successfully petitioned for an exception. Lab sheets for biomonitoring must be attached to the biomonitoring DMR. Lab sheets for metals and toxic organics must be attached to the DMRs.

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

*a See Definitions, *Part VIII*, for definition of terms.

- *b There shall be no discharge of floating solids or visible foam other than trace amounts.
- *c There shall be no discharge of sanitary wastes.
- *d An oil and grease sample shall be taken when a sheen is visible.
- *e daily maximum tonnages reported monthly. It is the permittee's responsibility to monitor and report the actual discharge of TDS for each monitoring period.

STORM WATER

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

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 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

Currently, process wastewater is discharged by the permittee directly into a water of the State. If changes occur where any wastewater from the facility is discharged to a POTW, as an Indirect Discharge, which includes hauled waste, the permittee will be subject to federal, state and local pretreatment regulations. Based on section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal Pretreatment Standards and Pretreatment Requirements promulgated in 40 CFR Section 403, the State Pretreatment Standards and Pretreatment Requirements found in UAC R317-8-8, and any Pretreatment Standards and Pretreatment Requirements developed by the POTW accepting the waste.

In addition, per *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 a discharge of 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 waterway is regularly dry; therefore there is not any available data to conclude that the irrigation ditch is impaired. 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
Jennifer Berjikian, Discharge Permit Writer
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Carl Adams, Storm Water
Lucy Parham TMDL/Watershed
Christopher Shope, Wasteload Analysis
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE INFORMATION

Began: October 16, 2023
Ended: December 13, 2023

The Public Notice of the draft Permit and the draft Permit documents were published on DWQ's website for at least 30 days as required per UAC R317-8-6.5.

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. A Public Hearing was requested and held on December 13, 2023.

ADDENDUM TO FSSOB

During the 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.

Comment Responsiveness Summary

Comments were received during the Public Notice comment period. These comments and DWQ responses can be found in the Public Comments Response Summary (Attachment 2). The Comment Response Summary was sent to the commenters in conjunction with the reissuance of the permit and is available by request. No significant changes were made as a result of the comments received.

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ATTACHMENT 1

Wasteload Analysis

**Utah Division of Water Quality
Statement of Basis
ADDENDUM
Wasteload Analysis and Antidegradation Level I Review**

Date: June 2, 2023

Prepared by: Christopher L. Shope
Standards and Technical Services

Facility: Energy Fuels Inc, Energy Queen Mine
UPDES Permit No. UT-0025712

Receiving water: Dry Wash > W Coyote Ck > Hatch Wash > Kane Springs Ck >
Colorado River (1C, 2B, 3C, 4)

This addendum summarizes the wasteload analysis that was performed to determine water quality based effluent limits (WQBEL) for this discharge. Wasteload analyses are performed to determine point source effluent limitations necessary to maintain designated beneficial uses by evaluating projected effects of discharge concentrations on in-stream water quality. The wasteload analysis also takes into account downstream designated uses (UAC R317-2-8). Projected concentrations are compared to numeric water quality standards to determine acceptability. The numeric criteria in this wasteload analysis may be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality (DWQ).

Discharge

The three outfalls (Outfall 001, 002, and 003): Dry Wash -> W Coyote Ck -> Hatch Wash -> Kane Springs Ck -> Colorado River

The design flow effluent discharge, presumably, the mean monthly design discharge, is 0.5 MGD for the facility.

Receiving Water

The receiving water for the three outfalls (Outfall 001, 002, and 003) is an unnamed ephemeral Dry Wash, which is tributary of the ephemeral West Coyote Creek, a tributary of ephemeral Hatch Wash, a tributary of Kane Springs Creek, a tributary of the Colorado River.

Per UAC R317-2-13, the designated beneficial use of the affected assessment unit in the immediate area is (13.1): “*Kane Canyon Creek and tributaries, from confluence with Colorado River to headwaters*” is classified 2B, 3C, 4. Since Kane Creek drains to the Colorado River, which is classified with 1C, the 1C criteria is included in the limits in order to ensure protection of downstream sources.

- *Class 1C - Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water*

Utah Division of Water Quality

Wasteload Analysis

Energy Fuels Inc, Energy Queen Mine, UPDES Permit No. UT-0025712

- *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.*

Typically, the critical flow for the wasteload analysis is considered the lowest stream flow for seven consecutive days with a ten year return frequency (7Q10). Because the receiving water is an ephemeral wash at the point of discharge and there are no available monitoring locations upstream, the 7Q10 critical flow is assumed to be zero.

Ambient, upstream, background receiving water quality was interrogated using DWQ 4956070 WEST COYOTE CK NEAR LASAL JUNCTION. The average seasonal value was calculated for each constituent, where data was available, in the receiving water. If seasonal information was not available, the average annual value of the parameter was used.

Effluent water quality parameters are typically characterized using the discharge monitoring report (DMR) provided by the facility or monitoring location data collected from the effluent. There is no discharge monitoring report available for the period from 2000 through 2023. Therefore, effluent conditions were summarized, where available, using the Compliance Monitoring Well Background Statistics from the 2009 DWQ Ground Water Quality Discharge Permit for the compliance wells.

Total Maximum Daily Load (TMDL)

According to the Utah's [Final 2022 Integrated Report on Water Quality](#) dated December 9, 2022, the receiving water for the discharge, "*Kane Canyon Creek and tributaries, from confluence with Colorado River to headwaters (Kane Springs Wash: UT14030005-001_00)*" was listed as "Not Supporting" for Temperature and Total Dissolved Solids. DWQ has not completed a TMDL for Temperature nor Total Dissolved Solids in Kane Canyon Creek and has set the development priority as "Low".

Effluents 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 downstream in Kane Springs Wash.

Mixing Zone

The maximum allowable mixing zone is 15 minutes of travel time for acute conditions, not to exceed 50% of stream width, and for chronic conditions is 2500 ft, per UAC R317-2-5. Water quality standards must be met at the end of the mixing zone.

**Utah Division of Water Quality
Wasteload Analysis
Energy Fuels Inc, Energy Queen Mine, UPDES Permit No. UT-0025712**

Since the receiving water is an ephemeral Dry Wash contributing to a series of ephemeral washes, the critical low flow is considered zero, no mixing zone analysis was considered. Effluent limits revert to end of pipe standards.

Parameters of Concern

The potential parameters of concern identified for the discharge/receiving water were determined in consultation with the UPDES Permit Writer, the Utah Water Quality Assessment Reports, and the industry SIC codes from <https://www.osha.gov/data/sic-search>. The potential parameters of concern for this facility include: radiological parameters (gross alpha, gross beta, Strontium 90, Uranium, Radium 226, 228), Temperature, Total Dissolved Solids, metals, major ions.

WET Limits

The percent of effluent in the receiving water in a fully mixed condition, and acute and chronic dilution in a not fully mixed condition are calculated in the WLA in order to generate WET limits. The LC₅₀ (lethal concentration, 50%) percent effluent for acute toxicity and the IC₂₅ (inhibition concentration, 25%) percent effluent for chronic toxicity, as determined by the WET test, needs to be below the WET limits, as determined by the WLA. The WET limit for LC₅₀ is typically 100% effluent and does not need to be determined by the WLA.

Table 1: WET Limits for IC₂₅

Outfall	Percent Effluent
Outfall 001	99.9%
Outfall 002	99.9%
Outfall 003	99.9%

Wasteload Allocation Methods

Effluent limits were determined for conservative constituents using a simple mass balance mixing analysis (UDWQ, 2021). Therefore, no mixing zone is applied and end of pipe effluent limits are required. The mass balance analysis is summarized in the Wasteload Addendum.

The water quality standard for chronic ammonia toxicity is dependent on temperature and pH, and the water quality standard for acute ammonia toxicity is dependent on pH. However, temperature and ammonia concentration of the effluent were not provided. The AMMTOX Model developed by University of Colorado and adapted by Utah DWQ and EPA Region VIII was used to determine ammonia effluent limits (Lewis et al., 2002). The analysis is summarized in the Wasteload Addendum.

Water quality models and supporting documentation are available for review upon request.

Antidegradation Level I Review

The objective of the Level I ADR is to ensure the protection of existing uses, defined as the beneficial uses attained in the receiving water on or after November 28, 1975. No evidence is known that the existing uses deviate from the designated beneficial uses for the receiving water. Therefore, the beneficial uses will be protected if the discharge remains below the WQBELs presented in this wasteload.

Utah Division of Water Quality
Wasteload Analysis
Energy Fuels Inc, Energy Queen Mine, UPDES Permit No. UT-0025712

A Level II Antidegradation Review (ADR) is NOT required for this facility as the UPDES permit is being renewed and there is no increase in load or concentration over that which was approved in the previous permit, per UAC R317-2-3.

Documents:

Wasteload Document: *Energy_Queen_Mine_WLA_2023.docx*

Wasteload Analysis and Addendums: *Energy_Queen_Mine_WLA_2023.xlsm*

References:

Lewis, B., J. Saunders, and M. Murphy. 2002. Ammonia Toxicity Model (AMMTOX, Version2): A Tool for Determining Effluent Ammonia Limits. University of Colorado, Center for Limnology.

Utah Division of Water Quality. 2021. *Utah Wasteload Analysis Procedures Version 2.0*. <https://documents.deq.utah.gov/water-quality/standards-technical-services/DWQ-2021-000684.pdf>

Utah Division of Water Quality. 2022. *Final 2022 Integrated Report on Water Quality*. <https://documents.deq.utah.gov/water-quality/monitoring-reporting/integrated-report/DWQ-2022-002386.pdf>

USEPA, 1986. Quality Criteria for Water (“Gold Book”): Office of Water Regulations and Standards, EPA-440/5-86-001, USEPA, Washington DC. <https://www.epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf>

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ATTACHMENT 2

Public Comments Response Summary

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UTAH DEPARTMENT *of*
ENVIRONMENTAL QUALITY
**WATER
QUALITY**

**PUBLIC COMMENTS RESPONSE SUMMARY
ENERGY FUELS RESOURCES (USA), INC.
ENERGY QUEEN MINE
UPDES PERMIT NO. UT0026204
April 2, 2024**

Outline

- I. Public Notice and Hearing Information
- II. Written Comments
- III. Response to Comments

I. Public Notice and Hearing Information

Summary: The Utah Division of Water Quality (“DWQ”) provided Public Notice regarding the draft Utah Pollutant Discharge Elimination System (“UPDES”) Permit for Energy Queen Mine (“Mine”), operated by Energy Fuels Resources (USA), Inc. (“Permittee”), on the DWQ webpage on October 26, 2023. During the comment period, DWQ received a request for a Public Hearing. The draft permit was re-published on the DWQ webpage on November 7, 2023, and the comment period was extended until December 13, 2023. A Public Hearing was held on December 13, 2023.

Documents (available by request):

1. First Public Notice (DWQ-2023-122764)
2. Second Public Notice & Hearing Information (DWQ-2023-125626)

II. Written Comments

Documents (available by request):

1. Written Comments (DWQ-2023-200118)
2. Written Comments (DWQ-2023-200117)

III. Response to Comments

A total of 25 comments were received during the public notice periods. This document has been developed to address all comments received. The party who submitted each comment is mentioned in parentheses after the comment number.

Comment 1 (Uranium Watch):

The Energy Queen Mine does not have an approved, functional discharge treatment system for the Mine and has not requested DWQ approval of a discharge treatment system.

DWQ Response:

Utah Admin Code R317-8-3.5(3) requires existing mining discharges to provide a narrative identification of each type of process, operation, or production area that contributes wastewater to the effluent for each outfall location, including the treatment the wastewater would receive. Currently, the Mine is not operational and produces no wastewater, resulting in no effluent discharge at the point source. Invariably, the Mine would not have need for a wastewater treatment system under the current conditions. As such, DWQ is not requiring the Mine to provide what would be a speculative discharge treatment system. If the Mine resumes operation, and wastewater treatment is required to meet the permit effluent limitations, DWQ would require modification of the permit to include a detailed description of treatment. Prior to issuing the permit modification, DWQ would require the submittal of the description of wastewater treatment, a detailed schematic, and updated monitoring data in accordance with Utah's administrative rules. This information would be evaluated, and the permit would only be modified if DWQ determined that there would be no negative impact on the receiving water. Until that time, these items are not required.

No changes have been made to the permit in response to this comment.

Comment 2 (Uranium Watch):

EFRI does not have a current Utah Groundwater Quality Discharge Permit (GWDP) for the Energy Queen Mine and has not requested a new GWDP. The last GWDP for the Energy Queen Mine Water Evaporation Pond (Permit Number UGW370007) Expired in 2014.

DWQ Response:

Groundwater Discharge permits are issued according to the groundwater program, which is independent of the UPDES program. Each program operates under its own set of administrative rules and regulates distinct methods of discharge to waters of the State. Groundwater is regulated by Utah Admin. Code R317-6 and pollutant discharges to by Utah Admin. Code R317-8. Obtaining a UPDES permit is not contingent upon obtaining a Groundwater Discharge permit. Groundwater

Discharge permits are not considered during the UPDES permitting process and are issued by the Groundwater Section of DWQ. Should the facility begin operation in the future, and discharge effluent to the groundwater of the State, DWQ will evaluate the need for a Groundwater Discharge permit under an application by the facility for the same.

No changes have been made to the permit in response to this comment.

Comment 3 (Uranium Watch):

The draft 2023 Renewal of UPDES Permit No. UT0025712 is missing a major, substantive portion of the 2018 UPDES Permit, which the 2023 Permit is supposed to renew. This omission is not explained by the DWQ.

DWQ Response:

DWQ has reviewed the UPDES draft permit documents and determined them to be complete. Changes from previous permits are outlined in the “Summary of Changes from Previous Permit’ section of the Fact Sheet Statement of Basis (FSSOB).

No changes have been made to the permit in response to this comment.

Comment 4 (Uranium Watch):

The DWQ Public Notice contains a Background statement:

BACKGROUND

Energy Fuels Resources Corporation leases and operates the Energy Queen Mine (Mine), which is an underground uranium and vanadium mine. The discharge treatment system for this facility consists of a chemical precipitation process with barium chloride. The intercepted mine water is pumped and mixed with barium chloride and then up to an initial treatment pond where the barium chloride assists in Radium reduction. The mine is located at 560 E. Highway 46, La Sal, UT 84535 in San Juan County, Utah at latitude 38°18'45" and longitude 109°18'30". The facility has a Standard Industrial Classification (SIC) code 1094, for Uranium mining.

The Background Statement contains misleading information. The operator of the Energy Queen Mine is NOT Energy Fuels Resources Corporation, it is Energy Fuels Resources (USA) Inc. (EFRI). EFRI has been the mine operator since 2014. The description of the discharge treatment system does not fully and accurately describe the current or proposed

treatment system, the previous Division of Water Quality requirements for such as system, or the current status and condition of such system.

DWQ Response:

DWQ has revised the UPDES permit with the correct operator name.

See DWQ Response to Comment 1.

Comment 5 (Uranium Watch):

The EFRI Permit Renewal Application (Application), which can be confusing, includes laboratory analytical data that was associated (with) the previous mine operator, not the current mine operator. The data is from samples that were taken in 2006 and 2007, over 16 years ago. It is impossible to tell exactly where the samples were taken and what, exactly, the data represents in terms of the removal, treatment, and discharge of mine water from the underground mine workings. One document indicates that the samples were taken from the surface. The Energy Queen Mine has not operated underground since 1992. It does not appear that any samples were taken from actual mine water or treated mine water, so are not representative of the constituents in the mine water before, during, and after storage and treatment.

It is unclear how, exactly, the laboratory analytical reports are relevant to the UPDES Permit and the Renewal process.

DWQ Response:

The Mine is not operational. If the Mine resumes operation, the mine will be required to monitor various parameters as outlined in Part I.C.2.a. of the draft permit. This monitoring helps determine UPDES permit compliance. The data collected is used to help determine effluent limitations and monitoring frequency.

No changes to the permit were made as a result of this comment.

Comment 6 (Uranium Watch):

The Application, includes Figure 3, Water Flow Schematic. This a schematic diagram of a proposed stormwater and water treatment system. It is not a drawing of what is left of the treatment system at the Energy Queen. EFRI should have, but did not include a detailed map and drawings of the existing treatment system and any proposed treatment system or treatment system upgrades.

DWQ Response:

The scope of the UPDES permit is constrained to current or proposed discharges to surface waters of the state and compliance with the discharge limits. Figure 3 shows the treatment system as it appeared at the time of the most recent inspection.

Also, the commenter has not identified or suggested any requirement or regulation that would prevent DWQ from issuing this permit renewal without requiring the facility to submit a detailed map and drawing of the existing treatment system or any proposed treatment system. In DWQ's assessment, the facility has fulfilled all applicable requirements of Utah Admin Code R 317-8.

See DWQ Response to Comment 1.

No changes were made to the permit in response to this comment.

Comment 7 (Uranium Watch):

The Application, Part 1 General Information, references "GWDP UGW370007." However, according to the DWQ web site,² this Groundwater Discharge Permit expired in 2014, so it was misleading for EFRI to reference it in the UPDES Application.

DWQ Response:

See DWQ Response to Comment 2.

No changes were made to the permit in response to this comment.

Comment 8 (Uranium Watch):

In sum, the EFRI May March 2023 Permit Renewal Application was incomplete. The Application should have included full description and schematic of the actual current water treatment system, and any proposed treatment system or treatment system upgrades. The Application should have included sampling data that was relevant to the UPDES Permit Renewal. The Application should not have referenced the GWDP, which, apparently has expired.

DWQ Response:

The commenter has not identified or suggested any requirement or regulation that would require the applicant to include a full description or schematic of the current

water treatment system as part of its renewal application. DWQ has determined that the renewal application was complete.

See DWQ Response to Comment 1 and Comment 2.

No changes were made to the permit in response to this comment.

Comment 9 (Uranium Watch):

The Fact Sheet and Statement of Basis (Fact Sheet), Description of Facility briefly describes an existing discharge treatment system. However, that system is no longer functional; for example, the liner for one of the holding ponds was removed and the two (2) other holding ponds have no liners. EFRI, in the 2023 Application, provided a drawing and brief description of a new system. However, EFRI has not applied for DWQ approval of that new system. The Fact Sheet, Summary of Changes from Previous Permit, states: "All limitations will remain the same as those in the previous permit. Based on the capacity of the existing treatment facility upon any future discharges, Energy Queen Mine is expected to be able to comply with the limitations." However, it is clear from the EFRI Application that EFRI intends to install a new treatment system. Given that the existing treatment system is not functional and needs upgrading, and EFRI map and information regarding a new treatment system, it is hard to understand why the DWQ Statement of Basis relies on the operation and capacity of the existing, non-functional system. The Statement of Basis should rely on the proposed water treatment system.

DWQ Response:

See DWQ Response to Comment 1.

No changes were made to the permit in response to this comment.

Comment 10 (Uranium Watch):

The Fact Sheet, under Biomonitoring Requirements (page 5), states: "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."

This statement is very misleading. Should the Energy Queen Mine reopen, millions of gallons of mine water will have to be removed from the existing mine workings, treated, and discharged even before underground workers can access the underground mine workings. If mine operations continue, an unknown quantity of mine water will need to be removed, treated, and discharged during operations. This should be taken into consideration by the Division.

The Fact Sheet goes on to state: "Also, the receiving waterway is regularly dry; therefore there is not any available data to conclude that the irrigation ditch is impaired."

In the past untreated mine water, in addition to treated mine water, was discharged into the receiving waterway. DWQ and EFRI have the capacity to sample the soils and vegetation in and along the receiving waterway and determine whether there have been any radiological impacts from the Energy Queen Mine. Data can easily be gathered to determine the impacts to the waterway, some of which is on land administered by the U.S. Bureau of Land Management.

DWQ Response:

The commenter has not identified or suggested any requirement or regulation that would require the applicant to sample soils and vegetation for radiological impacts in order to receive a UPDES permit, nor has the commenter referenced authority for the DWQ to regulate such impacts. Should the facility have a radiological impact on its environment, the Division of Waste Management and Radiation Control would have exclusive authority to regulate these impacts. DWQ has determined that the renewal application was complete.

See DWQ Response to Comment 1.

No changes have been made to the permit at this time.

Comment 11 (Uranium Watch):

Utah Pollutant Discharge Elimination System (UPDES) Permits, Major (or Minor) Municipal (or Industrial), Draft Permit No. UT0025712.

The proposed Renewed UPDES Permit is significantly different from the Energy Queen Mines's 2018 UPDES Permit that is being Renewed. One would expect that the Renewed UPDES Permit would be similar to the previous Permit. However, the 2018 Permit is 34 pages; the 2023 Draft Permit is 23 pages. A significant section of the 2018 Permit is missing from the 2023 proposed Permit.

The deletion of several pages of provisions is not explained by the DWQ in the 2023 Draft Permit documents.

The Division failed to provide a redlined copy of the 2018 Permit showing the deletions and additions that would appear in the 2023 Renewed Permit. The Statement of Basis did not discuss the substantial differences in the 2018 Permit and the Draft 2023 Permit.

DWQ Response:

See DWQ Response to Comment 3 and Comment 12.

No changes have been made to the permit in response to this comment.

Comment 12 (Uranium Watch):

The 2018 UPDES Permit, Section II. Stormwater Discharge, is not included in the draft 2023 Permit. Section II lists requirements applicable to storm water discharges from active and inactive metal mining and ore dressing facilities if the storm water has come into contact with, or is contaminated by, any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of the operation.

The Energy Queen Mine currently has waste rock piles, contaminated ponds (unlined and previously lined) that have stored mine water, a historical ore pad, and others areas of the Mine that may be contaminated from previous uranium mining activities. In the future, ore will be stored at the mine and additional waste rock may be generated and stored at the site. Contaminated storm water will impact on-site and off-site drainages at the Energy Queen Mine.

DWQ Response:

Previously, storm water discharge requirements and coverage were included in UPDES individual permits. These have been separated to provide consistency among permittees, electronic reporting for storm water discharge monitoring reports, and increased flexibility to adapt to changing site conditions. Permit coverage under the Multi Sector General Permit (MSGP) for Storm Water Discharges from Industrial Activities may or may not be required based on the Standard Industrial Classification (SIC) code for the Mine and the types of industrial activities occurring, if any. If the Mine has not already determined if separate MSGP coverage is required, it has thirty (30) days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or apply for a No Exposure Certification (NEC).

Permit coverage under the Construction General Storm Water Permit (CGP) is required for any construction at the facility which disturbs an acre or more or is part of a common plan of development or sale that is an acre or greater. An 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>

Also, DWQ must evaluate a permit application according to the conditions present at the time of the application. EFRI's application does not request to permit effluent discharges from ore storage or processing or waste rock processing. Facts suggesting that the intent of the applicant is to continue or expand operations in the future are speculative and not before DWQ under the current application. For DWQ to deny a permit renewal based on uncertain future events would be improper.

No changes have been made to the permit in response to this comment.

Comment 13 (Uranium Watch):

The Application, Figure 3 Water Flow Schematic, shows that Stormwater Runoff from Ore Pad and from Direct Precipitation will flow into the Untreated Water Pond. However, currently, there does not appear to be pathways for runoff from the current location of the Ore Pad to the current area of the water treatment holding ponds. Nor does the site appear to have pathways to direct precipitation runoff from other areas of the mine site to a holding pond. This is confusing, in part, because there was no actual drawing of the mine site and the water treatment operation in the Application.

DWQ Response:

See DWQ Response to Comment 12.

No changes have been made to the permit in response to this comment.

Comment 14 (Uranium Watch):

Energy Queen Mine Groundwater Discharge Permit, GWDP UGW370007.

The EFRI Application, Part 1 General Information, references “GWDP UGW370007.” However, according to the DWQ website, this Groundwater Discharge Permit (GWDP), which became effective on May 7, 2009, expired in 2014. Therefore, EFRI lacks a GWDP for the Energy Queen Mine.

DWQ Response:

See DWQ Response to Comment 2.

Comment 15 (Uranium Watch):

The Ground Water Quality Discharge Permit, GWDP UGW370007, Statement of Basis, Energy Fuels Resources Corporation Energy Queen Mine, La Sal, Utah, February 13, 2009, contains some relevant information on the requirements for the mine water treatment system.

Purpose

Energy Fuels Resources Corporation proposes to reactivate the Energy Queen uranium mine (formerly called the Hecla shaft) near La Sal, Utah. Before mining can commence, ground water will need to be removed from the flooded mine workings and stored in a no-discharge pond prior to treatment to meet effluent discharge limits under an existing Utah Pollutant Discharge Elimination System (UPDES) Permit. This Ground Water Quality Discharge Permit will require best available technology and ground water compliance monitoring for a 1.5 million gallon untreated water pond, an adjacent concrete filter pad, and a treatment plant with multimedia filters.

Discharge minimization technology will be required for the existing single synthetic lined pond, which will be used as a contingency pond.

At this time, not only does the Mine not have a GWDP, it does not have an approved water treatment system, or application for a new treatment system.

DWQ Response:

See DWQ Response to Comment 2 and 12.

Comment 16 (Uranium Watch):

The GWDP UGW370007, page 2, includes a requirement for a background monitoring program:

As required in Part I.H.1 of the permit, an accelerated background monitoring program will be completed by the permittee to collect data for calculating well specific background ground water quality statistics. After securing Executive Secretary approval of the Accelerated Background Monitoring Report, background concentrations will be adjusted in accordance with the reopener provision in Part IV.O.2 of the permit.

I do not know if an accelerated background monitoring program was ever begun or completed by the permittee to collect data for calculating well specific background ground water quality statistics.

I do not know if, over the past 14 years since the GWDP UGW370007 was issued, the groundwater in the vicinity of the Energy Queen Mine has been adversely affected by the flooded mine workings and other aspects of the non-operating uranium mine.

DWQ Response:

Whether EFRI has historically complied with the conditions of its permit, specifically, whether EFRI had an accelerated background monitoring program, or whether EFRI unlawfully impacts groundwater of the State, would be in the nature of enforcement as opposed to permitting or permit renewal. It is within DWQ's discretionary enforcement authority to impose conditions upon EFRI for a permit violation. Prior compliance history is not considered when issuing a permit as it would be punitive, against the law, and contrary to the authority given to DWQ for permitting and regulating the sources.

Comment 17 (Uranium Watch):

The 2009 GWDP contains requirements for the background monitoring program, ground water classification and water protection requirements, a compliance monitoring program, and source water monitoring. The GWDP includes provisions for Best Available Technology (BAT) for the untreated water pond, filter pad, and contingency pond. It also requires BAT performance monitoring. The GWDP discusses Potential

Impacts to Groundwater, Compliance Schedule, BAT Performance Monitoring Plan, and includes a list of Permit Application Documents.

DWQ Response:

The commenters did not provide any rule or regulation that would prevent the DWQ from issuing an approval order for the current permit renewal. The commenter also did not suggest any deficiencies to the intended permit or propose changes to the same. As such, the comment cannot be addressed further.

Comment 18 (Uranium Watch):

The GWDP includes requirements for a Final Conceptual Closure Plan and Duty to Reapply:

The Permittee shall submit a final conceptual closure plan at least 180 days prior to the expiration date of this permit. Also to be submitted at this time will be a reapplication for the ground water discharge permit which will include an updated operational plan describing the proposed operational and closure activities to occur in the next five-year term of the permit. The Permittee shall resubmit the plan with 60 days of receipt of notice from the Executive Secretary and correct any deficiencies noted in the agency review.

It is not apparent that the owner of the Energy Queen Mine submitted a final conceptual closure plan at least 180 days prior to the May 7, 2014, expiration date of the permit and a reapplication for the ground water discharge permit. According to the DWQ website, the GWDP was not renewed in 2014.

DWQ Response:

See DWQ Response to Comment 2, 12, and 16.

Comment 19 (Uranium Watch):

The GWDP for the Energy Queen Mine and its requirements were clearly tied to the protection of ground water at, and in the vicinity of, the Mine. Yet, there is no mention of a GWDP and the relationship between a GWDP and the UPDES Permit in the Division's response to EFRI 2023 UPDES Renewal Application.

The DWQ must explain this omission.

The DWQ must require a new GWDP for the Energy Queen Mine.

The DWQ must require EFRI to conduct a background monitoring program and establish background water quality as soon as possible. The establishment of background water quality at the Energy Queen Mine should not wait until the mine reopens.

DWQ Response:

See DWQ Response to Comment 2 and 12.

Comment 20 (Uranium Watch):

In addition to not having a GWDP, it appears that EFRI has not been required to establish background water quality at the Mine, has not been required to monitor the groundwater constituents at the mine site during periods of non-operation when the mine workings are flooded. Therefore, it is not possible to determine whether mine water is migrating from the flooded underground workings of the Energy Queen Mine or if water quality has been is changing over time.

There do not appear to be monitoring wells off-site. Given the potential for the off-site migration of contaminated mine water, it is not apparent why the State of Utah has not required the establishment of background water quality parameters and the routine sampling of monitoring wells on and in the vicinity of the Mine site to determine whether there is a source of groundwater contamination from the flooded underground mine workings.

DWQ Response

See DWQ Response to Comment 2.

No changes have been made to the permit in response to these comments.

Comment 21 (Uranium Watch):

Other Concerns

The liner from the holding pond that was part of the mine water treatment system was removed several years ago. I do not know who authorized this removal or how it fits into the requirements for site reclamation under Utah Division of Oil, Gas & Mining (DOGGM) regulations and the Energy Queen Mine reclamation plan. It is of great concern that the mine operator had the liner cut into pieces and disposed of at a municipal landfill in Moab, Grand County. The liner was disposed of without the municipal landfill operators being informed that the material be disposed of was the liner from a holding pond used to store radiologically-contaminated mine water at a uranium mine in another county.

DWQ Response:

Groundwater permits, DOGM regulations, Solid and Hazardous Waste, Radiation Control and landfill regulations are outside the scope of UPDES permits.

No changes have been made to the permit in response to this comment.

Comment 22 (Uranium Watch):

The small shed that is supposed to be the “water treatment plant” used to be unlocked and contained broken bags of barium chloride and animal droppings, since small animals can enter the shed. The State of Utah has been indifferent to the hazards at the Mine site from the storage hazardous materials at the site. Also, there is surface radiological contamination at the mine site, which is never measured and reported to any Utah regulatory agency. This includes ore pads, unlined water treatment ponds, and other areas associated with the water treatment system and the historical uranium mine operation.

DWQ Response:

DWQ last inspected the facility on October 26, 2023, and found no deficiencies with respect to the UPDES permit. The scope of the UPDES permitting program is constrained to consideration of the present or proposed discharge of effluent to surface waters of the state and compliance with the discharge limits. This comment will be passed on to the Permittee for any follow-up, as appropriate.

No changes were made to the permit in response to this comment.

Comment 23 (The Bureau of Land Management (BLM)):

BLM would like to clarify if, and when, discharge from this system has occurred in the past. The Fact Sheet (DWQ-2023-12240) states on page 2 "The Energy Queen Mine is an existing, but inactive mine, which has not had a discharge of mine water for over 25 years." The UDWQ public notice states "While the Mine is permitted to discharge to West Coyote Wash, Outfalls 001, 002, and 003 have been inactive since August 2021." We appreciate your clarification on this.

DWQ Response:

The Mine has not discharged in over 25 years, and the status of the Mine is “Inactive.” This means that the facility must notify the Division at least 60 days prior to a discharge out of Outfalls 001, 002, and 003. The facility is not authorized to discharge out of the three outfalls while the outfalls are in “Inactive” status.

No changes were made to the permit in response to this comment.

Comment 24 (BLM):

BLM is concerned about flood impacts to the treatment facilities, potentially spreading contaminants downstream of the discharge locations into West Coyote Creek. Since the treatment facilities have not been used since the 1980s, we recommend these facilities be updated to include adequate flood protection measures prior to any discharges.

DWQ Response:

Storm water runoff is not permitted to leave the property.

See DWQ Response to Comment 12.

No changes were made to the permit in response to this comment.

Comment 25 (BLM):

BLM requests that UDWQ conduct baseline data collection and follow up monitoring at the established water quality sample site about 3 miles downstream of the discharge points, West Coyote Ck near LaSal Junction, UTAHDWQ_WQX-4956070. Although sampling has been conducted at this site in the past, no radiologic analysis has been conducted to date. Data collection would document conditions prior to, during and after any discharge, and help to understand any impacts from the proposed activity. BLM will submit a formal request to UDWQ regarding future monitoring and is interested in collaborating on this effort.

DWQ Response:

DWQ has requested that BLM submit a formal request for evaluation.

No changes were made to the permit in response to this comment.

