Official Draft Public Notice Version September 10, 2015.
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FACT SHEET STATEMENT OF BASIS (FSSOB)
UTAH AMERICAN ENERGY, LILA CANYON MINE
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)
PERMIT NUMBER: UT0026018
NEW MINOR INDUSTRIAL

FACILITY CONTACTS

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DESCRIPTION OF FACILITY

Facility Name:	Utah American Energy, Lila Canyon Mine
Mailing Address:	P.O. Box 910 East Carbon, Utah 84520
Physical Location:	23415 N. Lila Canyon Road Green River, Utah 84525
Coordinates:	Latitude: 39°25'37", Longitude: 110°21'1.00".
Classification (SIC):	*4952 – Collection and Disposal of Wastes Transported through a Sewer System. (NAICS 221320)*

The permitted facility is a package plant treating sanitary sewage and grey water from a newly constructed bath house at the Lila Canyon Coal Mine. The number of employees working at the mine has increased from 40 to 250, which necessitated the addition of a large bath house and associated treatment system. The land area is not conducive to any type of drain field, which is why a package plant will be used to treat the liquid waste.

Effluent will be treated in a septic tank for removal of solids followed by an anoxic stage with flow equalization into the package plant treatment system (Orenco System). Treated effluent is then pumped through duplex UV disinfection units before discharge. The process has the ability to complete enhanced nutrient reduction in the future if required. The maximum daily flow as indicated in the permit application is 8,750 gallons per day or 0.008750 million gallons per day, and the average daily flow rate is 4,375 gallons per day or 0.004375 million gallons per day.

DESCRIPTION OF DISCHARGE

Outfall	Description
001	Discharge is from a package plant to a drainage ditch to Lila Canyon Wash an ephemeral channel which would discharge, if flowing, through several washes to the Price River. The Outfall is located at latitude 39°25'37" and longitude 110°21'1.00.

RECEIVING WATERS AND STREAM CLASSIFICATION

The discharge from the package plant goes to Lila Canyon Wash which is a tributary of the Price River. The Price River is estimated to be between six and ten miles downstream of Lila Canyon Wash. Per *Utah Administrative Code (UAC) R317-2-13.*1b, the beneficial uses for the Price River and tributaries, from confluence with the Green River to Carbon Canal Diversion at Price City Golf Course are 2B, 3C and 4.

Class 2B -- Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.

Class 3C -- Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.

Class 4 -- Protected for agricultural uses including irrigation of crops and stock watering.

BASIS FOR EFFLUENT LIMITATIONS

Water from the Lila Canyon mine will be treated with reverse osmosis for use in the bath house. Bath house water must meet drinking water standards and therefore will be of high quality. Based on this information, and in consultation with the wasteload analyst, the parameters of concern are biochemical oxygen demand (5-day BOD), total suspended solids (TSS), pH, E. coli, dissolved oxygen, total dissolved solids (TDS) and total ammonia.

In accordance with regulations promulgated in *40 Code of Federal Regulations (CFR) Part 122.44* and in *UAC R317-8-4.2*, effluent limitations are derived from technology-based effluent limitations guidelines, Utah Secondary Treatment Standards (*UAC R317-1-3.2*) or Utah Water Quality Standards (*UAC R317-2*). In cases where multiple limits have been or could be developed, those that are more stringent apply. In cases where no limits are applicable, Best Professional Judgment (BPJ) may be used. "Best Professional Judgment" refers to a discretionary, best professional decision made by the permit writer based upon precedent, prevailing regulatory

standards or other relevant information. A waste load analysis was completed and is included as Appendix I of this FSSOB. Because this is a new facility, a Level II Antidegradation Review is required. This analysis was completed and submitted by email on July 17, 2015 and was approved on August 5, 2015. A copy of the approved Level II Antidegradation Review is included in Appendix II.

1) BOD and TSS 30-day and 7-day averages are based on Utah Secondary Treatment Standards.

2) Daily minimum and daily maximum limitations on pH are derived from Utah Secondary Treatment Standards and Water Quality Standards.

3) Thirty (30) day and seven (7) day geometric averages for E. coli are taken from Utah Secondary Treatment Standards.

4) Dissolved oxygen and seasonal ammonia nitrogen limits are taken from the wasteload allocation which is based on water quality standards.

5) As mentioned above, discharge is to an unnamed drainage ditch which is a tributary to Lila Canyon Wash. Lila Canyon Wash joins up with many other washes before reaching the Price River. The distance from the mine site sanitary treatment system to the Price River through Lila Canyon Wash is many miles. The unnamed drainage ditch and Lila Canyon Wash are ephemeral in nature, and have no flow that would routinely reach the Price River. Flow would reach the Price River only due to a substantial rainfall or snow melt runoff, such as greater than the 100 year flood flow. Based on the information above, Lila Canyon requested a variance to the TBPEL rule and monitoring because application of the rule at this facility is unnecessary to protect downstream water of the Price River. This variance was granted by the DWQ. Therefore, no total phosphorous limitation will be required in this permit, nor monitoring for nutrients as required in the TBPEL rule in UAC R317-1-3.3D.

6) The Colorado River Basin Salinity Control Forum (CRBSCF) implemented on February 28, 1977 and revised on October 30, 2002 a "Policy for Implementation of Colorado River Salinity Standards Through the NPDES Permit Program". A portion of this policy deals with municipal or sanitary discharges, and is applicable to the package plant sanitary discharge at Lila Canyon Mine. This policy requires that the incremental increase in TDS/salinity shall be 400 mg/L or less above the flow weighted average salinity of the intake water supply. This requirement can be waived in cases where the incremental salt load reaching the main stem of the Colorado River is less than one ton per day or 366 tons per year. Therefore the permittee will be limited to one ton per day or 2000 pounds per day. The permittee will be discharging less than one ton per day with the effluent limits required on concentration of TDS and effluent flow.

a. In the stretch of the Price River which the Lila Canyon Sanitary system would discharge into (assuming that there was enough flow to make it to the Price River) there is a site specific standard for TDS of 3000 mg/L. Because the water supplied to the bathhouse is treated by reverse osmosis and meets drinking water standards, it is unlikely that the TDS in the effluent will ever exceed 1500 mg/L. Therefore, the TDS for Outfall 001 shall not exceed 1500 mg/L as a daily maximum value. This is a BPJ number developed by the permit writer in conjunction with facility personnel.

7) Effluent flow is taken from the application submitted. The average daily value for flow is 0.004375 Million Gallons per Day (MGD) and the Daily Maximum Value is 0.008750 MGD.

EFFLUENT IMITATIONS, SELF-MONITORING, AND REPORTING REQUIREMENTS

The effluent limitations and monitoring requirements for Outfall 001shall be completed as outlined below. Effluent self-monitoring requirements are based on BPJ. Reports shall be made via NetDMR or on Discharge Monitoring Report (DMR) forms and are due 28 days after the end of the monthly monitoring period.

Parameter	Effluent Limitations a/				
	Maximum Monthly Avg	Minimum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum
BOD_5, mg/L BOD_5 Min. % Removal c/	25 85	NA	35 NA	NA NA	NA NA
TSS, mg/L TSS Min. % Removal c/	25 85	NA	35 NA	NA NA	NA NA
E-Coli, No./100mL	126	NA	158	NA	NA
NH_3-N, mg/L					
Summer (July – Sept.)	4.1	NA	NA	NA	8.4
Fall (Oct. – Dec.)	5.1	NA	NA	NA	8.4
Winter (Jan. – March)	5.8	NA	NA	NA	8.4
Spring (April – June)	5.1	NA	NA	NA	8.4
TDS, mg/L d/	NA	NA	NA	NA	1500
TDS, lbs/day	NA	NA	NA	NA	2000
Oil & Grease, mg/L e/	NA	NA	NA	NA	10
DO, mg/L	NA	5.0	NA	3.0	NA
pH, Standard Units	NA	NA	NA	6.5	9
Total flow b/	0.004375	NA	NA	NA	0.00875

NA – Not Applicable

Self-Monitoring and Reporting Requirements a/			
Parameter	Frequency	Sample Type	Units
Total Flow b/	Continuous	Recorder	MGD
BOD_5, Influent c/ Effluent	Monthly Monthly	Composite Composite	mg/L mg/L
TSS, Influent c/ Effluent	Monthly Monthly	Composite Composite	mg/L mg/L
E. Coli	Monthly	Grab	No./100mL
pH	Monthly	Grab	SU
TDS d/	Monthly	Composite	mg/L & lbs/day
DO	Monthly	Grab	mg/L
NH_3-N	Monthly	Composite	mg/L
Oil and Grease e/	Monthly	Grab	Visual

a/ See Part VIII for definition of terms.

b/ Flow measurements of effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.

c/ In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.

d/ The TDS concentration shall not exceed 1500 mg/L as a daily maximum limit. The permittee must not discharge more than one ton per day (2000 lbs/day) from Outfall 001.

e/ Oil and grease shall be a visual test. If any oil and /or grease sheens are observed visually, then a sample of the effluent must be taken and this sample shall not exceed 10 mg/L.

SIGNIFICANT CHANGES FROM PREVIOUS PERMIT

Since this is the first permit for this facility, this section does not apply.

STORM WATER REQUIREMENTS

Wastewater treatment facilities, which includes treatment lagoons, are required to comply with storm water permit requirements if they meet one or both of the following criteria,

1. The facility has an approved pretreatment program as described in *40 CFR Part 403*.
2. The facility has a design flow of 1.0 MGD or greater.

The Lila Canyon sanitary treatment system does not meet either of the criteria; therefore a storm water permit is not required at this time. However, a storm water re-opener provision is included in the permit should a storm water permit be needed in the future, following proper administrative procedures as per *UAC R317-8,* to include any applicable storm water provisions and requirements if appropriate.

PRETREATMENT REQUIREMENTS

The permittee does not discharge to another wastewater treatment facility, but rather treats and discharges wastewater from the bath house for the mine employees. Although any wastewaters discharged to the sanitary sewer, either as a direct discharge or as a hauled waste, are subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of *The Water Quality Act of 1987*, the permittee shall comply with all applicable federal General Pretreatment Regulations promulgated at *40 CFR 403*, the State Pretreatment Requirements at *UAC R317-8-8*, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the wastewaters

In addition, in accordance with *40 CFR 403.12(p)(1)*, the permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if they discharge any substance into a POTW which if otherwise disposed of would be considered a hazardous waste under *40 CFR 261*. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

BIOMONITORING REQUIREMENTS

As part of a nationwide effort to control toxic discharges, biomonitoring requirements are being included in permits for facilities where effluent toxicity is an existing or potential concern. In Utah, this is done in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (Biomonitoring (2/1991))*. Authority to require effluent biomonitoring is provided in *UAC R317-8, Utah Pollutant Discharge Elimination System* and *UAC R317-2, Water Quality Standards*.

This system is a sanitary waste package plant that will receive toilet, shower room and sink wastes from a bath house associated with Lila Canyon Mine. It will not contain any industrial wastes. A clause in the permit will require that there be no discharge of hazardous materials into the sanitary sewer. Therefore, a reasonable potential for toxicity does not exist and biomonitoring of the effluent will not be required. However, a toxicity reopener provision is included in the permit so that WET testing and WET limitation requirements can be incorporated at any time if determined to be appropriate in the future.

BIOSOLIDS MANAGEMENT PROGRAM

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. The sanitary treatment system at Lila Canyon is a small package

plant, known as an Orenco system. Sewage will be sent from the bath house to a septic tank (approx. 18000 gallons) where most of the solids will be retained and the liquid pumped to the Orenco System. Solids will have to be disposed of as required by the 503 requirements.

The Lila Canyon Mine plans to have the septic tank pumped out when needed and the solids disposed of as septage at a treatment plant for disposal.

PERMIT DURATION

As stated in *UAC R317-8-5.1(1)*, UPDES permits shall be effective for a fixed term not to exceed five (5) years.

Drafted by Mike Herkimer
Environmental Scientist
Utah Division of Water Quality
July 20, 2015
Also review and comments by:
Dan Griffin –Biosolids
Jennifer Robinson – Pretreatment
Mike George – Industrial Storm Water
Nick von Stackelberg – WLA/Antideg.
Amy Dickey - TMDL

Permit was public noticed in the Sun Advocate from September 10, 2015 until October 13, 2015. Comments may or may not be received.

ADDENDUMS

I. Waste Load Analysis
II. ADR II application and review and certification by DWQ personnel