

**FACT SHEET STATEMENT OF BASIS
ALTON COAL DEVELOPMENT, LLC – COAL HOLLOW PROJECT
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)
PERMIT NUMBER: UT0025992
MINOR INDUSTRIAL RENEWAL**

FACILITY CONTACTS

Facility Contact:	B. Kirk Nicholes	Responsible Official:	Larry Johnson
Position:	Env. Specialist	Position:	Mine Manager
Phone:	(435) 691-1551	Phone:	(435) 691-2983

DESCRIPTION OF FACILITY

Facility Name: Alton Coal Development, LLC – Coal Hollow Project
Mailing Address: 463 North 100 West, Suite 1
Cedar City, Utah 84721
Physical Location: 2060 South Alton Road, Alton, Utah 84710. The mine is approximately three miles south of Alton, Utah in Kane County
Coordinates: Latitude: 37° 24' 24.02 N., Longitude: 112° 27' 12.47 W.

Standard Industrial Classification (SIC): *1221 - Bituminous Coal and Lignite Surface Mining*

Alton Coal Development, LLC – Coal Hollow Project (CHP) is a surface coal mining operation located about three miles south of the town of Alton, Utah. Approximately 3000 tons of coal is mined per day. The CHP consists of 636 acres of land, of which 435 is actively being mined. The Company has six discharge points. CHP was issued coverage under the Utah General Permit for Coal Mining May 1, 2009. Since the mine discharges to Lower Robinson Creek, which has recently been designated as impaired and included on the 303(d) list, CHP will be issued an individual UPDES permit to address the water quality requirements associated with that designation. The individual permit will become effective upon the expiration of their coverage under the Utah General Coal Permit.

DESCRIPTION OF DISCHARGE

CHP was granted six discharge points under the General Coal Permit and will continue having the option of using the same six discharge points under this individual permit. Due to the dynamic nature of surface coal mining activities, these discharge outfall locations may change as the mining sequence proceeds per the Coal Hollow Mine permit approved by the Utah Division of Oil, Gas and Mining. The number of outfalls will remain the same and discharge will be to the same receiving waters, and the new locations would not significantly change the nature or increase the quantity of pollutants discharged. The permittee must notify the Director of any outfall relocation and receive approval before the change in location is made. These changes in location can be made without a need for public notice after approval by the Director. The number of outfalls will not change from those permitted under the General Permit and are located presently as follows:

<u>Outfall</u>	<u>Description of Discharge Point</u>
001	Storm water runoff from sediment pond #1 to Lower Robinson Creek, Latitude 37° 24' 13" N, Longitude 112°27'13"W.
001B	Storm water runoff from sediment pond #1B to Lower Robinson Creek, Latitude 37° 24' 11" N, Longitude 112°27'16"W.
002	Storm water runoff from sediment pond #2 to Lower Robinson Creek, Latitude 37° 24' 10" N, Longitude 112°27'16"W.
003	Ground water and storm water runoff from sediment pond #3 to Lower Robinson Creek, Latitude 37° 23' 51" N, Longitude 112°27'53"W.
004	Ground water and storm water runoff from sediment pond #4 to Sink Valley Wash, Latitude 37° 23' 01" N, Longitude 112°27'03"W.
005	Up-gradient alluvial groundwater discharged from a collection sump to Lower Robinson Creek, Latitude 37°24'5.04 N, and Longitude 112°27'20.91 W.

RECEIVING WATERS AND STREAM CLASSIFICATION

Lower Robinson Creek and Sink Valley Wash are classified as 2B, 3C and 4.

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.

WASTE LOAD ANALYSIS AND ANTIDegradation REVIEW

Effluent limitations may be derived using a Waste Load Analysis (WLA), which is appended to this statement of basis as Addendum I. The WLA incorporates Secondary Treatment Standards, Water Quality Standards, Anti-degradation 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 this UPDES renewal permit 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. 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.

BASIS FOR EFFLUENT LIMITATIONS

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 developed, those that are more stringent apply. In cases where no underlying standards have been developed, Best Professional Judgment (BPJ) may be used where applicable to set effluent limits. “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.

- 1) CHP’s discharge meets the EPA definition of “alkaline mine drainage.” As such, it is subject to the technology based effluent limitations in *40 CFR Part 434.45*. Technology based limits used in the permit are listed below.
 - a. Total suspended solids (TSS) daily maximum limit.
 - b. For discharges composed of surface water or mine water commingled with surface water, *40 CFR Part 434.63* allows alternate effluent limits to be applied when discharges result from specific runoff events, detailed below and in the permit. CHP has the burden of proof that the described runoff event occurred.
 - i. For runoff events (rainfall or snowmelt) less than or equal to a 10-year 24-hour precipitation event, settleable solids shall be substituted for TSS and shall be limited to 0.5 milliliters per liter (ml/L). All other effluent limitations must be achieved concurrently, as described in the permit.
 - ii. Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) may comply with the following limitation instead of the otherwise applicable limitations:

Pollutant or pollutant property	Effluent limitations
pH	6.5-9.0 at all times.

- 2) TSS 30-day and 7-day averages are based on Utah Secondary Treatment Standards.
- 3) Daily minimum and daily maximum limitations on pH are derived from Utah Secondary Treatment Standards and Water Quality Standards.
- 4) Total dissolved solids (TDS) are limited according to Water Quality Standards and policies established by the Colorado River Basin Salinity Control Forum. TDS are limited by both mass loading and concentration requirements as described below:

- a. Since discharges from CHP eventually reach the Colorado River, TDS mass loading is limited according to policies established by the Colorado River Basin Salinity Control Forum (Forum), as authorized in *UAC R317-2-4* to further control salinity in the Utah portion of the Colorado River Basin. On February 28, 1977 the Forum produced the "*Policy For Implementation of Colorado River Salinity Standards Through the NPDES Permit Program*" (Policy), with the most current subsequent triennial revision dated October 2011. The TDS loading required by the salinity forum, and included in this permit is one ton per day as a sum from all discharge points, unless the concentration of TDS is 500 mg/L or less. If the concentration of TDS is less than or equal to 500 mg/L at all discharge points, no loading limit applies. If one ton per day cannot be achieved, the permittee will be required to remove salinity/TDS in excess of one ton per day by developing a treatment process, participating in a salinity off-set program, or developing some type of mechanism to remove the salinity/TDS. The selection of a salinity control program, if needed, must be approved by the Director of the Division of Water Quality and implemented within one year of the effective date of approval.
 - b. Based on *UAC R317-2-14, Table 2.14*, the concentration of TDS in water used for agricultural purposes shall not exceed 1200 mg/L, unless there is a designated site specific standard for TDS which has been incorporated into the State Water Quality Standards. At the present time there are no site specific standards for Upper Robinson Creek or Sink Valley Wash. Therefore, the permittee will be required to meet a daily maximum TDS concentration of 1200 mg/L at all of its discharge points. This effluent standard is being included to insure that discharges from CHP operations do not cause or contribute to a water quality violation (R317-2-2.2).
- 5) The limitation on total recoverable iron is water quality based and derived in the WLA. The iron limitation is based upon the State Water Quality Standard of 1.0 mg/L for dissolved iron (*UAC R317-2 Table 2.14.2*) and the WLA limitation of 1.0 for total recoverable iron. Total recoverable iron is a more stringent limitation than dissolved iron. Therefore, a permit limit of 1.0 mg/L for total recoverable iron will be included in the renewal permit and shall apply to each of the discharge points.
 - 6) Oil and Grease are limited to 10 mg/L by BPJ, as this is consistent with other industrial facilities statewide.

EFFLUENT LIMITATIONS, SELF-MONITORING, AND REPORTING REQUIREMENTS

The effluent limitations and monitoring requirements for all Outfalls (001, 001B, 002,003,004, and 005) are as outlined below. Effluent self-monitoring requirements are developed from the *Utah Monitoring, Recording and Reporting Frequency Guidelines* as effective December 1, 1991 with the use of BPJ. Reports shall be made via NetDMR or on Discharge Monitoring Report (DMR) forms and are due 28 days after the end of the monitoring period (month, quarter, year, etc.).

Effluent Characteristics	Effluent Limitations				Monitoring Requirements	
	30 Day Average	7 Day Average	Daily Minimum	Daily Maximum	Sample Frequency	Sample Type
Flow, ¹ MGD	NA	² NA	NA	1.13 a/	Monthly	Measured
TSS, mg/L	25	35	NA	70	Monthly	Grab
Total Iron, mg/L	NA	NA	NA	1.0	Monthly	Grab
Oil & Grease, mg/L b/	NA	NA	NA	10	Monthly	Grab
TDS, mg/L	NA	NA	NA	1200	Monthly	Grab
TDS lbs/day	NA	NA	NA	2000c/	Monthly	Grab
pH, standard units	NA	NA	6.5	9.0	Monthly	Grab
Sanitary Waste d/	NA	NA	NA	None	Monthly	Visual
Oil and Grease, floating solids, visible foam, b/	NA	NA	NA	None	Monthly	Visual

¹ MGD: million gallons per day ² NA: not applicable

- a/ For intermittent discharges, the duration of the discharge shall also be reported.
- b/ In addition to monthly sampling for oil and grease, a visual inspection for oil and grease, floating solids, and visible foam shall be performed at least monthly. There shall be no sheen, floating solids, or visible foam in other than trace amounts. If a sheen is observed, a sample of the effluent shall be collected immediately thereafter and oil and grease shall not exceed 10 mg/L in concentration.
- c/ A limit of one ton (2000 lbs per day) as a sum from all discharge points is required of the permittee, unless a concentration of 500 mg/L or less is achieved at all discharge points. If 500 mg/L or less is achieved at all discharge points, then no loading limit applies. If the permittee cannot achieve the 500 mg/L concentration requirement or the one ton per day loading limit, then the permittee will be required to remove salinity/TDS in excess of one ton per day by developing a treatment process, participating in a salinity off-set program, or developing some type of mechanism to remove the salinity/TDS. The selection of a salinity control method, if needed, must be approved by the Director of the Division of Water Quality and implemented within one year of that approval.
- d/ There shall be no discharge of sanitary waste.

SIGNIFICANT CHANGES FROM PREVIOUS PERMIT

CHP has previously been covered under the Coal General Permit. This is the first individual UPDES discharge permit issued to CHP, and includes a total dissolved solids (TDS) effluent limit that was not in the Coal General Permit. Otherwise, the terms of the new permit remain largely unchanged from those of the previous General Permit. Further, the mining and stormwater activities regulated by the individual permit are identical to those regulated by the General Permit.

STORM WATER REQUIREMENTS

The storm water requirements are based on the UPDES Multi-Sector General Permit (MSGP) for Storm Water Discharges for Industrial Activity, General Permit No. UTR000000. All sections of the MSGP that pertain to discharges from industrial wastewater treatment plants have been included and sections which are redundant or do not pertain have been deleted.

The permit requires the preparation and implementation of a storm water pollution prevention plan for all areas within the confines of the plant. Required elements of this plan are:

- 1) Development of a pollution prevention team,
- 2) Development of drainage maps and material stockpiles,
- 3) An inventory of exposed material,
- 4) Spill reporting and response procedures,
- 5) A preventative maintenance program,
- 6) Employee training,
- 7) Certification that storm water discharges are not mixed with non-storm water discharges,
- 8) Compliance site evaluations and potential pollutant source identification, and
- 9) Visual examinations of storm water discharges.

This plan is required to be maintained on-site to reflect current site conditions and made available for review upon request and/or inspections.

PRETREATMENT REQUIREMENTS

This facility does not discharge process wastewater to a sanitary sewer system. Any process wastewater that the facility may discharge to the sanitary sewer, either as a direct discharge or as a hauled waste, is subject to federal, state, and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable federal general pretreatment regulations promulgated, found in 40 CFR 403, the state's pretreatment requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

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*.

CHP is a minor facility that discharges water encountered in strip mining, which includes to a larger extent, alluvial water and surface water runoff. As such there is no reasonable potential for toxicity to be present and biomonitoring limits and testing will not be required. However, to assure no toxicity is present the CHP will be required to sample, and complete an acute whole effluent toxicity test on a grab sample of the discharge from the pond(s) that receive mine pit water. Those that discharge only surface runoff water will not be required to do this WET testing. This monitoring shall occur on the first discharge that occurs after the effective date of the permit and reported with the appropriate discharge monitoring report.

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.

ATTACHMENTS

- I. Waste Load Analysis, Anti-Degradation Review (ADR)
- II. CHP DMR data for 2009 through 2012.

The draft permit and FSSOB was public noticed from _____ through _____ in the _____.

Permit Writer: _____

Date: _____

Drafted by Mike Herkimer
Environmental Scientist
Utah Division of Water Quality
January 22, 2013

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ATTACHMENT I

Wasteload Analysis and Anti-degradation Review

PV DRAFT