

#3640
OK

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

March 3, 2011

TO: Internal File

THRU: James D. Smith, Permit Supervisor *JS 03/07/11*

FROM: Kevin Lundmark, Environmental Scientist II *KWL*

RE: 2010 Third Quarter Water Monitoring, Sunnyside Cogeneration Association, Sunnyside Refuse/Slurry, C0070035, WQ010-3, Task 3640

The Sunnyside Refuse/Slurry Mine is currently operational. The facility mines the old Sunnyside Mine coarse refuse and slurry cells, blends the material and burns it at the adjacent cogeneration facility. Sunnyside Cogeneration Association (SCA) started mining coal refuse at this site in 1993 and projects a total mine life of at least 20 years. Water monitoring requirements are described in the MRP in Section 730 and Appendix 7-8.

This report was prepared from monitoring data queried from the UDOGM database. The data that support this report were collected and submitted to the database by SCA. The data were downloaded into file O:\007035.SRS\Water Quality\DATA\SRS_All.xls for this review.

1. Was data submitted for all required sites?

Springs YES [X] NO []

The Permittee is required to monitor and sample springs CRS, CRB and F-2 quarterly. Spring CRS was not flowing at the time of monitoring. Springs CRB and F-2 were both reported with flows of 3 gpm.

Streams YES [X] NO []

The Permittee is required to monitor and sample Icelander Creek at location ICE-1 quarterly. Stream site ICE-1 was reported with no flow during the third quarter 2010 monitoring event.

Wells **YES [X]** **NO []**

The Permittee is required to monitor and sample the East Carbon City Well (a.k.a. Dragerton Well or WELL-1) and well B-6 quarterly. Well B-6 was reported as dry during the third quarter 2010 sampling event. WELL-1 was reported with a discharge of 200 gpm.

UPDES **YES [X]** **NO []**

There are six active UPDES sites at the Sunnyside Refuse/Slurry Mine. They are all under the permit UT0024759, and include outfalls 007, 008, 009, 012, 014, and 016. The Permittee is required to monitor each UPDES site monthly according to the permit. The current permit expires July 31, 2012. The Permittee monitored and reported no discharges during the quarter.

2. Were all required parameters reported for each site?

Springs **YES [X]** **NO []**

Streams **YES [X]** **NO []**

Wells **YES [X]** **NO []**

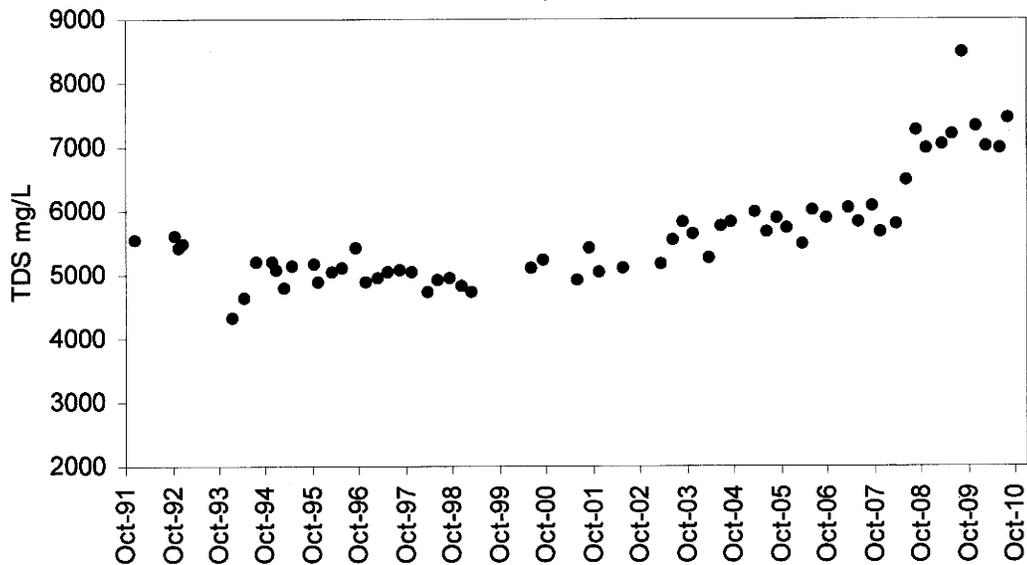
UPDES **YES [X]** **NO []**

3. Were irregularities found in the data?

Springs **YES [X]** **NO []**

The calculated total anions value was elevated by greater than two standard deviations above the average value at location CRB. The cation-anion balance was acceptable for the analysis (0.56 percent). The total dissolved solids concentration in spring CRB appears to be increasing over time (see plot below).

TDS at Spring CRB



Streams YES [] NO [X]

Wells YES [X] NO []

The chloride concentration reported for WELL-1 (73 mg/L) is above the average value for this site by greater than two times the standard deviation. The cation-anion balance for the analysis was acceptable (0.53 percent). The chloride concentration at WELL-1 has exceeded 70 mg/L twice previously: 75 mg/L during second quarter 2003 and 74 mg/L in fourth quarter 2004.

UPDES YES [] NO [X]

4. On what date does the MRP require a five-year resampling of baseline water data.

MRP Appendix 7-8 states that "once every five years (prior to each application for permit renewal) one sample from each of the monitoring sites listed in Table 7-2A will be sampled and analyzed for the parameters listed in Table 7-2B". The Permittee monitored the complete list of baseline parameters during the first quarter of 2007. The next five-year sampling should take place in 2012.

5. Based on your review, what further actions, if any, do you recommend?

None.

Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements? YES [] NO [X]

- 6. Follow-up from last quarter, if necessary.
Did the Mine Operator submit all the missing and/or irregular data (datum)?**

None required.

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