

February 7, 2003

TO: Internal File

FROM: Michael Suflita, Environmental Scientist III, Hydrologist.

RE: Water Monitoring, Sunnyside Cogeneration Association (SCA), Sunnyside Refuse/Slurry, C/007/035 AM02B.

SUMMARY:

On December 10, 2002 the Division received an amendment which proposed to eliminate all water monitoring at the SCA site. This document is a review of the Hydrology aspects of that proposed amendment and there are deficiencies.

TECHNICAL ANALYSIS:

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Groundwater Monitoring and Surface Water Monitoring

The amendment presents a detailed analysis of the water quantity and quality data gathered from March 1996 to May 2002. This data is compared to the baseline data gathered from 1993 through 1995 that is already contained in the Mining and Reclamation Plan (MRP). The site has a total of 6 monitoring sites identified as:

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- Icelander Creek
- Columbia Dugway Spring
- Coarse Refuse Seep Source
- Coarse Refuse Seep Boundary
- Dragerton Well
- Borehole B-6

The amendment has a graph for each of the following parameters plotting all of the sites during the 1996 to 2002 timeframes.

- Water Flow
- Water Temperature
- Dissolved Oxygen
- PH
- Specific Conductivity
- Total Iron
- Dissolved Iron
- Total Manganese
- Dissolved Manganese

All of the raw data for these parameters for all 6 sites is presented in Table 2, Analytical Results, and Table 1, Field Parameter Data. Stiff Diagrams for all sites are presented in Figure 11 through Figure 14. All of these data are based on the requirements contained in the current, updated MRP. Review of all this data shows no discernable impact to water quality or quantity. Based on these presentations, the Operator has asked that all water monitoring be stopped at the SCA site.

In some instances the coal mining regulations are subject to interpretation and some latitude is available. However, the regulations governing ground water and surface water monitoring are well defined. For example, paragraphs 731.214 indicates, “Ground-water monitoring will proceed through mining and continue during reclamation until bond release.” and paragraph 731.224 indicates “Surface-water monitoring will proceed through mining and continue during reclamation until bond release.” Similarly, paragraphs 731.212 and 731.223 indicate ground water and surface water “monitoring data will be submitted at least every three months for each monitoring location.” In order to comply with these regulations, the SCA facility must continue monitoring surface water and ground water all the way through the operational phase, through reclamation, and until the bond release. Similarly, the frequency of monitoring cannot be reduced below that required by regulation, as explained above.

In addition to the regulatory requirements, there are several compelling logical reasons for surface and groundwater monitoring to continue. The SCA facility is still an active site and is expected to continue operating for the next 20 years. Past monitoring results, positive or negative, are not a predictor of future results. The continued operation until 2023 will take place over different areas and at different elevations. Monitoring must continue to be sure these

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different situations do not have adverse effects. The regulations have been written to protect the public and to protect the Operator. Suspending water monitoring would end this protection and cannot be allowed. Further, in order to have bond release, the Operator will need to provide a demonstration, based on evidence, that their operations have not had any detrimental impact on the Hydrologic Balance. Without continuous water monitoring data, such a demonstration would not be possible. Without such data, the Operator would risk not being granted bond release.

While considering the request to suspend surface and ground water monitoring at SCA, the Division reviewed other similar sites administered by the Division. Similar sites are those having disturbed areas and permit areas that are approximately equal and are not actual coal mining sites. These sites are listed in the following table.

Site	Disturbed Area	Permit Area	Number of Monitoring Sites	Permit Acres Per Monitoring Site
Banning Loadout	21.6	36.42	6	6
Savage Coal Terminal	122.28	160	13	12
Sunnyside Cogeneration	202	310	6	52
Wildcat Loadout	63.7	100	10	10

The permit area was used to calculate the number of acres per monitoring site since the sites are located throughout the whole permit area, and not just the disturbed area. The above table indicates that SCA has the largest number of acres per monitoring site. That is, SCA has the least monitoring of any of the sites. When considering that two of the sites have been reported as dry since the beginning of monitoring, the actual monitoring is even less at SCA.

Again considering other sites, it's noteworthy that ALL sites have water monitoring. There are no sites where water monitoring has been suspended for any reason. This includes those sites which are no longer operational and have completed reclamation and are awaiting bond release.

The Operator is commended for a high-quality presentation of the water monitoring data. More importantly, it's apparent that no negative impacts have resulted from the SCA operations. The Division would ask that the presentations be revised and resubmitted according to the following. Include the data as a separate appendix summarizing the data to the dates indicated. Revise the graphs to be at the same horizontal and vertical scale as those contained in the MRP for baseline data. The same scale makes comparison much easier for the Operator, the Division, and for whoever reads the document. Otherwise, retain the tables and revise the narrative to remove the request for cessation of water monitoring.

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Findings:

The proposed amendment does not meet regulatory requirements. Accordingly, the permittee must address those deficiencies as found within this Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

R645-301-121.200, Provide an appendix to the MRP including the graphs, charts, and text of this amendment, modified to simply include the data in the MRP while continuing to perform all water monitoring previously committed to in the MRP. Modify the graphs to be the same horizontal and vertical scale as those already in the MRP for baseline data.

Based on **R645-301-731.214, -731.224, -731.212, and -731.223**, the request to eliminate water monitoring is denied.

RECOMMENDATIONS:

The proposed amendment should not be approved. It should be revised and resubmitted.