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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

May 27, 2009

TO: Internal File

THRU: Jim Smith, Lead JS 06/18/09

FROM: Ingrid Wieser, Environmental Scientist II IWW 6/18/09

RE: 2008 Midterm Review, Pacificorp, Deer Creek Mine, C/015/0018, Task ID # 3267

SUMMARY:

In a letter dated August 11, 2008 the Division notified Pacificorp of the commencement of the 2008 Midterm Review of Deer Creek Mine. The Division sent a list of deficiencies to the Permittee on March 16, 2009. During this time, the Division discussed the terms of the Colorado Fish Recovery Program with the US Fish and Wildlife Service as well as other State Oil and Gas Regulatory Programs. The deficiencies initially sent to the Permittee may or may not need to be addressed in the future after a Programmatic Agreement is completed between DOGM and USFWS. Also, the Division came to the decision that once a mine has completed a section 7 consultation with the FWS regarding their water consumption, the consultation will only be reopened if the mine changes water consumption by 10% or greater. Deer Creek has not had a change in water consumption. For the purpose of the midterm review of the Deer Creek Mine, the deficiencies do not need to be addressed at this time.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

In Volume 12, Biology Section, page 3-18 and 3-19, the Permittee lists the water consumption calculations in accordance with the Colorado River Endangered Fish Recovery Program. Typically, mining operations can contribute to water depletion in the following ways: Coal production consumption (or coal moisture loss), surface operation consumption, ventilation, discharge from groundwater into mine workings, and pond evaporation.

The Permittee identified the following eight sources of potential water depletion from the mine.

1. Evaporation from ventilation. From this calculation, the Permittee found that the mine lost 55 acre/feet of water from ventilation evaporation.
2. Coal preparation. PacifiCorp owns the water rights for their coal preparation plant and therefore this water loss does not need to be included.

According to the USFWS, State-appropriated water rights are a separated issue and do not have any bearing on the depletion calculations and Colorado Fish Recovery Program.

3. Sediment pond evaporation. The Permittee stated that this would not be considered a consumption mechanism because the water is discharged into a receiving stream after the sediment has accumulated in the pond. The Permittee needs to calculate the loss of water due to evaporation from the slow moving water in the pond.

The Permittee misinterpreted this source of water consumption. The Permittee must calculate the water loss due to evaporation from the sediment pond, regardless of whether or not the remaining water is discharged back to the stream.

4. Subsidence effect on springs. The Permittee states that there have been no effects to the streams due to subsidence.
5. Alluvial abstractions into mines. The Permittee states that there are no water infiltrations from alluvial systems into the mine.

6. Postmining inflow into workings. The Permittee states that there are currently no proposed mine openings for the Mill Fork Lease.
7. Coal Moisture loss. The Permittee states that coal mined at Deer Creek is approximately 5% and run-off mine moisture averages 8.5%. They also state that in 2002, Deer Creek is scheduled to mine 4.2 million tons. This calculation sums to 161 acre-feet of water.

The Permittee needs to update this calculation based on a current figure of mining production.

8. Direct Diversion. The Permittee states that there has been no consumption related to direct Diversion.

The Permittee calculates a final water consumption of 216 acre feet of water per year. The Permittee also lists a mine discharge of 2670 acre feet of water per year which would sum to a net gain of 2453 acre feet of water. ***However, the USFWS does not consider water discharge as a net gain or loss in the consumption equation. The mine is responsible for any water consumption over 100 acre-feet regardless of mine discharge.***

The final water consumption calculation and fee will be determined by the USFWS in a Section 7 consultation with OGM.

The following deficiency was sent to the Permittee:

R645-301-322: The following deficiency is based on the USFWS Colorado River Endangered Fish Recovery Program Regulations.

- The Permittee must calculate the water consumption due to evaporation from the sediment pond. Even though the water is discharged back into the stream after sediment settling, some water is lost due to evaporation increased by the slow movement of the water. This calculation must be included in the final sum of water consumption.
- When calculating the water consumption due to Coal moisture loss, the Permittee used a coal production figure of 4.2 million tons, which was an estimate from 2002. The Permittee needs to update the calculation of coal moisture loss using a current mining production figure.
- State appropriated water rights do not have any bearing on the depletion calculations and Colorado River Fish Recovery Program. The Permittee must include this depletion in the calculation.
- According to the US Fish and Wildlife Service, water discharged by the mine is not considered a net gain or loss when calculating water consumption. The Mine is responsible for the Colorado River water consumption regardless of the mine discharge. It is the responsibility of the Permittee to submit documentation from the USFWS supporting mine discharge as a positive contribution to the stream.
- The updated water consumption figure will be subject to a Section 7 consultation with OGM and the USFWS. The USFWS requires a current charge of 17.79 per acre-foot of water consumption over 100 acre-feet.

As mentioned above, since the deficiencies were sent to the Permittee, the Division began meeting with the US Fish and Wildlife Agency to write a Programmatic Agreement between the two parties regarding the Colorado Fish Recovery Program. The Division decided that the Permittee would not have to address the deficiencies in the Midterm review process. The mine would only have to update their water consumption calculation if the consumption changed by 10% or more, which it did not. The deficiencies will be addressed at a later date as a special project, if the Division deems it necessary, after the Programmatic Agreement has been completed. Or, the calculations will be revisited in the future if the mine water consumption changes by 10% or greater. The Permittee responded to the Deficiency letter by describing the Division's determination and expressing their interest in taking part in the Programmatic Agreement.

Findings:

The information provided in the Mining and Reclamation Plan is adequate to meet the minimum regulatory requirements.

RECOMMENDATIONS:

The Midterm review can be approved at this time. In the future, the Division may require the Permittee to amend the sections of the Mining and Reclamation Plan that deal with mine water consumption or discharge, specifically regarding the Colorado River Fish Recovery Program.

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