OGMCOAL - Fourth Quarter 2010 Water Quality Report for Wellington Prep Plant

From: April Abate
To: Patrick Collins
Date: 7/6/2011 9:41 AM
Subject: Fourth Quarter 2010 Water Quality Report for Wellington Prep Plant
CC: OGMCOAL@utah.gov; Steve Demczak
Attachments: 05262011.pdf; April Abate.vcf

Hello Patrick,

Attached please see the 4th quarter water quality report. Please note that I made some recommendations in the report regarding a few of the wells in the monitoring well network.

Best regards,

April

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#3674
ok

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

May 26, 2011

TO: Internal File

THRU: James D. Smith, Permit Supervisor 06/01/11

FROM: April A. Abate, Environmental Scientist III aaa 5/31/2011

RE: 2010 Fourth Quarter Water Monitoring, Nevada Electric Investment Corporation, Wellington Preparation Plant, C/007/0012, Task ID #3674

The Wellington Preparation Plant is currently in temporary cessation. No mining or coal processing activities currently take place there, nor is the site in active reclamation. Water-monitoring requirements are in Sections 7.23 and 7.31.2 through 7.31.22, and Tables 7.24-2 and 7.24-5 of the MRP.

1. On what date does the MRP require a five-year re-sampling of baseline water data.

Baseline parameters are collected in the year preceding permit renewal. The permit for the Wellington Preparation Plant was renewed on November 30, 2009.

2. Were data submitted for all of the MRP required sites?

Streams and Ponds YES ☒ NO ☐

The Permittee is required to analyze samples from streams at SW-1, SW-2A, SW-3, and SW-4 and from ponds at SW-5, SW-6, SW-7, and SW-8 for the parameters in Table 7.24-5, and to measure flow only at SW-2. In addition, samples from SW-4 and SW-5 are to also be analyzed for benzene, toluene, ethylbenzene, xylene, and naphthalene (BTEXN) and propylene glycol. Monitoring is done quarterly.

During the fourth quarter 2010, samples were collected from SW-1 and SW-2A. Flow only was measured from SW-2. None of the other monitoring locations reported flow. None of the pond samples reported any water during this monitoring period.

Wells YES ☒ NO ☐

The Permittee is required to analyze samples quarterly from GW-1, GW-3, GW-4, GW-6, GW-7, GW-8, GW-9, GW-9B, GW-10, GW-12, GW-13, GW-14, GW-15A, GW-15B, GW-16, and

GW-17 for the parameters in Table 7.24-2, and to measure depth only at GW-2.

Wells GW-3, GW-13 and GW-17 were not sampled. GW-3 was reported as dry and GW-13 and GW-17 were gauged for water level but reported as not having enough water in it to monitor. These three wells have consistently been reported as dry or not producing enough water to collect samples and are not meeting the objectives of the groundwater sampling program.

UPDES YES ☒ NO ☐

Six UPDES permitted outfalls at the Wellington Preparation Plant are monitored monthly: #UTG040010-003, 004, 005, 006, 007, and 008. None of the UPDES sites reported flow during the fourth quarter 2010.

3. Were all required parameters reported for each site?

Streams and Ponds YES ☒ NO ☐

Wells YES ☐ NO ☒

pH values for GW-4 and GW-6 were missing from the 4th quarter 2010 dataset. pH readings from the laboratory were however reported for both of these samples. No explanation was given in the comments as to why these pH values were not recorded in the field.

UPDES YES ☐ NO ☐

Not applicable

4. Were any irregularities found in the data?

Streams and Ponds YES ☐ NO ☒

Wells YES ☒ NO ☐

Parameters that were flagged as being outside two standard deviations were the typical parameters associated with hard water and salt. In general, these were the groundwater samples that have historically shown indicators of poor groundwater quality. The groundwater quality in the area is considered poor given the abundant sedimentary rock and the high concentrations of total dissolved solids (TDS) found along this reach of the Price River. Groundwater monitoring wells GW-15A and GW-15B were intended to be representative of alluvial groundwater from upgradient areas of the permit boundary.

GW-15A: sodium and potassium, chloride

GW-15B: bicarbonate, alkalinity, sodium and chloride

GW-16: calcium, chloride

UPDES YES ☐ NO ☐

Not Applicable. No discharges were reported from any of the UPDES monitoring locations.

5. Did the Permittee make a timely submittal of all data, including initially missing data, and satisfactorily explain irregular data? YES ☒ NO ☐

6. Does the Mine Permittee need to submit more information to fulfill this quarter's monitoring requirements? YES ☐ NO ☒

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

- Monitoring wells GW-12 is frequently inundated with surface water, GW-3 is usually dry and GW-13 and GW-17 typically do not yield enough water to sample. Since these wells are not performing as they were intended, the quality of the data when provided is questionable. The Division recommends that these wells be reevaluated for their usefulness and suggests properly abandoning wells that do not appear to be meeting the objectives of the Probable Hydrologic Consequences (PHC) and current water monitoring plan in the Wellington Mining and Reclamation plan.

8. Follow-up from last quarter, if necessary.

- During the second quarter, surface water sample collected from SW-1 in June 2010 yielded very high levels of total suspended solids (TSS), total iron, total manganese, and settleable solids. These abnormal readings were attributed to turbid storm water runoff at this location. SW-2A at the Farnham diversion located further downstream indicated that TSS and total iron levels also spiked. This appears to be a trend that seems to occur in June, according to data from the past two years. Levels of these constituents returned to normal based on the sample data from the 3rd quarter.