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research & consulting

VIA: U.S. Priority Mail

November 14, 2006

Wayne Hedberg
 Utah Coal Regulatory Program
 STATE OF UTAH
 Division of Oil, Gas & Mining
 1594 West North Temple, Suite 1210
 Salt Lake City, Utah 84114-5801

RE: Diversion Maintenance Amendment
 Wellington Preparation Plant
 C/007/012

incoming
e/007/0012 OK
#2702

Dear Mr. Hedberg:

In an onsite inspection with Division representatives (Priscilla Burton and Dana Dean) on August 29, 2006, a diversion maintenance issue was addressed. We made an agreement at that time regarding the maintenance. It was also suggested that we followup the agreement with an amendment to Wellington's Mining & Reclamation Plan (MRP). Because there was no immediacy due to safety or environmental issues associated with this, I told the inspectors at that time I would submit an amendment to the Division "when this field season began to slow down and I was in the office more".

Four (4) copies of the proposed amendment are enclosed with this letter along with "Comments & Instructions" to make the document insertable to Wellington's MRP. To provide assistance to the staff members that review this document, **the majority of the new verbiage is contained in the last paragraph of page 7 and the first two paragraphs of page 8.** If you need further assistance, or have suggestions for changes to the amendment, please do not hesitate to call or write me.

Sincerely,

Patrick D. Collins, Ph.D.
 Resident Agent/Environmental Consultant

cc: D. Phillips

Attachments (4)

RECEIVED

NOV 16 2006

DIV. OF OIL, GAS & MINING

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change New Permit Renewal Exploration Bond Release Transfer

Permittee: NEICO

Mine: Wellington Preparation Plant

Permit Number: C/007/012

Title: Diversion Maintenance Amendment

Description: Include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- Yes No 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _____ increase decrease.
- Yes No 2. Is the application submitted as a result of a Division Order? DO# _____
- Yes No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes No 6. Does the application require or include public notice publication?
- Yes No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes No 9. Is the application submitted as a result of a Violation? NOV # _____
- Yes No 10. Is the application submitted as a result of other laws or regulations or policies?

Explain: _____

- Yes No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes No 13. Does the application require or include collection and reporting of any baseline information?
- Yes No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes No 15. Does the application require or include soil removal, storage or placement?
- Yes No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes No 19. Does the application require or include certified designs, maps or calculation?
- Yes No 20. Does the application require or include subsidence control or monitoring?
- Yes No 21. Have reclamation costs for bonding been provided?
- Yes No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

PATRICK D. COWINS
Print Name

Patrick D. Cowins Res. Ag. 11/14/06
Sign Name, Position, Date

Subscribed and sworn to before me this 14 day of November, 2006

[Signature]
Notary Public

My commission Expires: 11/2, 2008 }
Attest: State of Utah } ss:
County of Utah



For Office Use Only:

Assigned Tracking Number:

Received by Oil, Gas & Mining

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DIV. OF OIL, GAS &



MT NEBO SCIENTIFIC, INC.

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**Comments & Instructions
for Insertions to the Mining & Reclamation Plan
of the Wellington Preparation Plant
C/007/012**

November 14, 2006

**Submitted to the State of Utah, Division of Oil, Gas & Mining
Diversion Maintenance Amendment**

Comment:

Maintenance issues as reviewed onsite by representatives from NEICO and the Division have been explained and provided to be inserted to Wellington's MRP with the instructions below.

Instructions:

Sec. 7.42, pp. 5-10, 11/14/06, of this submittal replaces:
Sec. 7.42, p. 5-7, 09/10/97 (and 10/02/97) of the current MRP.

The estimated peak discharge during the 25-yr, 6-hr precipitation event calculated for the sediment ponds as well as the estimated peak flow from the 100-yr, 6-hr precipitation event for the Lower Refuse Basin Sediment Pond are shown in Tables 742-1 and 742-2. Backup calculations are described in Volume II - Hydrology Appendix.

The Road Pond and Auxiliary Pond are small ponds and do not meet the size qualifying criteria of MSHA, 30CFR 77.216(a). In accordance with R645-301.742.223 these ponds should have a combination of principal and emergency spillways that will safely discharge a 25-year, 6-hour precipitation event. Both of these ponds have primary spillways consisting of culverts and earth lined emergency spillways. The principal spillways of both ponds have capacity to pass the 25-year, 6 hour event without ever topping the emergency spillways. Analyses are provided in Volume II - Hydrologic Appendix Watershed #4 which demonstrate that the earthlined emergency spillways for the Road Pond and Auxiliary Pond have non-eroding velocities even in the case when the primary spillways are plugged and the total design event (25-year 6-hour) is spilled.

The ponds have sufficient storage capacity to totally contain the runoff volume from the 10-year 24-hour precipitation event between the decant elevations and the primary spillway elevations as listed in Table 742-3. The water level in the ponds will normally be maintained at or below the decant level in anticipation of a runoff producing event.

742.230 through 742.232 Other Treatment Facilities

Other than the treatment facilities specified above, no other treatment facilities exist within the permit area.

742.300 Diversions

Flow from some undisturbed areas is diverted around disturbed areas. These diversions are discussed below.

742.310 through 742.314 General Requirements

Diversion UD-1 and its extension UD-IA of Watersheds #2 and #3, respectively, the so-called Permanent Diversion of Watershed #10, and the Siaperas Ditch of Watershed #9 divert runoff around disturbed areas within the permit area [see Dwgs. G9-3504 and F9-177(rev.)].

UD-1 is a temporary diversion that diverts drainage from 226 acres of undisturbed hills on the west side of the permit area. Certified as-built drawings are shown in Dwg. G9-3501. Calculations show that the design appears to be adequate to safely pass the runoff from a 10-year, 6-hour precipitation event. Calculations also show that velocities within the channel during this design storm are within the recommended limits for the channel material to prevent serious erosion. These calculations are shown in Volume II - Hydrology Appendix. The ditch empties into a subsequently installed extension named UD-IA.

UD-IA is a temporary diversion that receives the discharge from UD-1, discussed above, as well as from an additional 231 acres of additional undisturbed area in the hills west of the permit area. Certified as-built drawing of the diversion are contained in Dwgs G9-3502 and G9-3503. Because UD-IA prevents run-on onto the Course Refuse Pile, R645-301-746.212 states that the ditch must be designed to safely pass the runoff from a 100-year, 6-hour precipitation event. Calculations contained in Volume II - Hydrology Appendix show that the design of UD-IA adequately meets this requirement. Calculations contained in the appendix also show that velocities within the channel will be within the recommended limits for the channel material to prevent serious erosion.

Maintenance of the side-slopes to repair rills and gullies from overland flows on that side of the diversion where the land is undisturbed has been problematic for several years. Reasons for the rills and gullies are caused due to the very nature and function of the diversion – to control runoff from a large area of undisturbed land from entering the disturbed areas of the permit. When a given storm event occurs, runoff from the undisturbed watershed breaks through repairs that were previously made to that side of the diversion causing the sediments from the bank (that in effect function as “small dams”) to be deposited once again on the diversion bottoms. In the past this

material has then been replaced to the side-slopes from which it came. This maintenance then prevents waters from entering the diversion until a large enough storm event occurs to break through and begin the maintenance process all over again. Moreover, when the bank material is deposited to the to the diversion bottoms, it may interfere with the primary function of the diversion – to transport runoff waters and prevent them from entering the disturbed areas.

This maintenance issue has been noted and reported to the State of Utah, Division of Oil, Gas & Mining (DOG M) inspectors. Therefore, during an onsite inspection by representatives from NEICO (P. Collins) and DOGM (P. Burton and D. Dean) on August 29, 2006 an agreement was made that routine maintenance to repair the rills and gullies on the “undisturbed” side of the diversion has been impractical and should not be continued for the reasons described above. Even though the as-built drawings mentioned above could be interpreted to suggest maintenance otherwise, the verbiage here should be consulted by future site operators and DOGM inspectors. Other maintenance matters of the diversions should however be continued to allow them to function as designed.

The so-called Permanent Diversion, located near the Upper Refuse Basin on the east side of the permit area, is a permanent diversion that diverts runoff from 680 acres of undisturbed hills to the east of the permit area. The Permanent Diversion was constructed nearly 20 years ago. The ditch was originally designed to have a 10 foot wide bottom width with 1.5 horizontal to 1 vertical side slopes and a 4 inch thick layer of riprap in selected locations (see Dwg. E9-3427). Field examination (June 19, 1993) and analysis of the 1991 mapping reveals that the channel is well-vegetated and is stable when compared to surrounding channels. In accordance with R645-301-746.212, this diversion must be designed to safely pass the runoff produced for a 100-year, 6-hour precipitation event since it prevents run-on into the Upper Refuse Basin. Calculations contained in Volume II - Hydrology Appendix show that the design of the Permanent Diversion adequately meets this requirement.

The Siaperas Ditch is an old ditch that collects runoff from agricultural and undisturbed lands northwest of the permit area as shown on Dwg. G9-3504. The tributary area includes as much as 1266 acres in addition to the flow from the 680-acre drainage area diverted by the Permanent Diversion that empties into the Siaperas Ditch, for a total tributary area of 1946 acres. In accordance with R645-301-746.212, the Siaperas Ditch must safely pass the runoff produced from a 100-year, 6- hour precipitation event since it prevents run-on into the Upper Refuse Basin. Calculations contained in Volume II - Hydrology Appendix show that the Siaperas Ditch can adequately meet this requirement.

To demonstrate the Siaperas Ditch was designed to minimize adverse impacts to the hydrology balance, the Utah Division of Oil, Gas & Mining, recommended that water samples be taken from the Siaperas Ditch and ground water monitoring stations GW-2 and GW-3 at the same time for comparisons (letter from J. Helfrich, 8/30/96). These samples were collected on September 26, 1996. The sample was taken from the Siaperas Ditch about 100 ft upstream from the county road when the ditch was full or at level to near overflow at the outlet culvert.

Water surface elevation measured September 26, 1996 indicated a small gradient from the slurry basin toward the Siaperis Ditch. The water chemistry was significantly different between that measured in the Siaperas Ditch compared with the monitoring wells suggesting very little mixing of the water between the Siaperas Ditch and the slurry basin (see data in Watershed #9 Hydrology Appendix). We believe the pool in the Siaperas Ditch does not have a significant effect on ground water beneath the slurry basin and does not have a significant negative environmental consequence. However, because a significant storm event occurred prior to the September 26 sample date, the sample may have been a reflection of the rainfall rather than the irrigation waters as was intended. Therefore, the sampling will be repeated during the irrigation season of 1997 as an attempt to demonstrate whether or not the design of the Siaperas Ditch minimizes adverse impacts to the hydrologic balance.

The ditches located at the Pipeline Slurry Pond are used to collect runoff from the tributary disturbed area and convey the runoff to the pond. Hydrologic and-hydraulic computations for these ditches are provided in the Volume II - Hydrology Appendix Watershed #8. The 1991 mapping indicates that the channels are approximately V-shaped with 2 horizontal to 1 vertical side slopes.

Hydraulic analysis of the Pipeline Slurry south ditch indicates that the steepest section has a design velocity (with the 10-year, 6-hour storm event) of about 5.2 fps. Erosion control blankets are proposed to be used in all reaches of the south ditch which have bottom slopes exceeding 4%. These erosion control blankets will be installed in accordance with the manufacturer recommendations.

The Pipeline Slurry north ditch has a small tributary area (about 1.1 acres) and hydraulic analysis with the 10- year, 6-hour design flow rate indicates that the ditch is stable.

742.320 through 742.324 Diversion of Perennial and Intermittent Streams

The Siaperas Ditch is an old ditch that collects runoff from agricultural and undisturbed lands northwest of the permit area as shown on Dwg. G9-3504. The tributary area includes as much as 1266 acres in addition to the flow from the 680 acre drainage area diverted by the Permanent Diversion that empties into the Siaperas Ditch, for a total tributary area of 1946 acres. In accordance with R645-301-746.212, the Siaperas Ditch and must safely pass the runoff produced from a 100-year, 6-hour precipitation event since it prevents run-on into the Upper Refuse Basin. Calculations contained in Volume II - Hydrology Appendix show that the Siaperas Ditch can adequately meet this requirement.

The so-called Permanent Diversion is a permanent diversion that diverts runoff from 680 acres of the undisturbed hills to the east of the permit area. The Permanent Diversion was constructed approximately ten years ago. The ditch was originally designed to have a 10 ft width bottom width with 1.5 horizontal to 1 vertical side slopes and a 4 inch thick layer of riprap in selected location (see Dwg. E9-3427). Field examination (June 19, 1993) and analysis of the 1991 mapping reveals that the channel is well vegetated and stable when compared to surround channels. In accordance with R645-301-746.212, this diversion must be designed to safely pass the runoff produced for a 100-year, 6-hour precipitation event since it prevent run-on into the Upper Refuse Basin. Calculations contained in Volume II - Hydrology Appendix show that the design of the Permanent Diversion adequately meets this requirement.

The Covol coal fines wash plant will be built within Watershed #7 (Drawing 712a). There is almost no tributary watershed uphill from the plant site and lower margin of the plant site is adjacent to the Lower Refuse pond. Therefore, there are no perennial, intermittent or ephemeral channels that will be impacted by the Covol coal fines wash plant, as such, no diversions are planned. Runoff from the plant site will be controlled with grading to 2 percent along the existing topographic slope, and with structures as described on page I of Section 7.42.