

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

#3593
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August 17, 2010

TO: File

THRU: Kevin Lundmark, En Sci II, Reclamation Hydrologist, Team Lead *KW*
James D. Smith, En Sci III, Reclamation Hydrologist, Permit Supervisor *JDS* 31 Aug 2010

FROM: Peter Hess, En Sci III, Reclamation Specialist / Bond Review *PHH by SRS*

RE: DIVISION ORDER RESPONSE, UtahAmerican Energy, Inc., Wildcat Loadout, C/007/033, Task ID # 3593

SUMMARY:

The Permittee submitted a response to deficiencies aired by the Division review of Task ID # 3451 on July 15, 2010. This permitting action is relative to a Division Order issued in 2004 concerning coal fines transported to areas outside of the approved disturbed area / permit boundary.

The permit amendment proposes addressing the Division Order by the implementing the following:

- 1) Recover topsoil from 3.84 acres of surface area ESE of the main coal stockpile area, and Pond B.
- 2) Construct Pond "G" (new sediment containment) ESE of Pond "B".
- 3) Regrade Pond "B" to approximate sub-soil elevations
- 4) Remove coal fines from approximately 1.59 acres of vegetated area by utilization of vacuum trucks.

This memo will address the additional bonding required to reclaim these additional disturbances in accordance with the requirements of the R645 Coal Mining Rules.

TECHNICAL ANALYSIS:

RECLAMATION PLAN

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

General

The proposed plan will recover and store six inches of topsoil removed from 3.84 acres of land (the area where mechanical cleaning by heavy equipment will occur). The soil will be stored by enlarging the existing topsoil adjacent to pond "A" by 3500 cubic yards. The dimensions of this new pile will be 250 feet X 70 feet, having a six foot depth.

Form of Bond

The reclamation bonds (2) currently held by the Division to ensure the reclamation of the Wildcat Loadout are surety bonds in the amounts of \$ 651,000 and \$ 493,000 (Total of both bonds = \$ 1,144,000.00). The two sureties are both held by the Rockwood Casualty Insurance Company, which has an A.M. Best rating of "A", as of June 30, 2010.

Determination of Bond Amount

The Permittee submitted Appendix "P" as part of the Task ID # 3593 application. Page 7 of Appendix P, section 8) Bonding discusses the additional amount of money needed to reclaim the added 6.35 acres of disturbance.

Direct Cost / Demolition

The Permittee states on Page 7 that there will not be any additional dollars needed for the demolition of additional surface facilities. No new facilities are being added, therefore no additional demolition will take place.

Direct Cost Increase / Earthwork (Backfilling and Grading)

The Permittee states in this same section that there will no additional dollars needed to reclaim the Pond "G" depression, as the regrading of Pond "B" is already bonded for. The Division disagrees with this statement, as quick calculations of the Pond "B" versus Pond "G" excavated volumes show that Pond "G" is nearly twice as large (1.8

vs. 1.0) as Pond "B". Average depths of 8 feet and 7.8 feet were used to calculate the needed fill volumes.

Using cost numbers from the earthwork section of the approved reclamation bond (Appendix B, Part "D" of the Task ID # 3593 application) a unit cost of \$ 1.49 per cubic yard was calculated for a D9R dozer (current approved cost figures).

Pond "G" will require the backfilling of an additional 1,950 cubic yards, or an increase in cost for earth work of \$ **2,905.00**.

Page 4 of Appendix P states that an additional 3,097 cubic yards of topsoil will be collected for redistribution over the 6.35 acres of new disturbance. The soil will be collected and re-distributed to a six inch depth.

Plate 13 in the approved MRP indicates that there are 17,204 cubic yards of topsoil in four storage piles at the Wildcat Loadout. The approved reclamation bond amount indicates that the re-topsoiling of the disturbed area will require \$ 15, 013.00 or (\$ 15,013 / 17,204 CY = \$ 0.875 / CY).

To re-spread the 3,097 CY of soil associated with Task ID # 3593, The amount of additional dollars required will be \$ **2,710.00**.

$$(\$0.875 / CY \times 3097 CY = \$ 2,710.00)$$

Direct Cost Increase / Revegetation

The approved reclamation bond for the Wildcat Loadout area shows that the revegetation of the disturbed area (69 acres) will require \$ 359,746.00.

The disturbed area acreage currently being reported on DOGM inspection report forms for the Wildcat Loadout area is 78.45 acres, which is 12 % more than what has been bonded for. Using the current revegetation costs, which are Division approved (\$ 359,746.00 / 69 acres = \$ 5,213.00 / acre), the additional revegetation cost required for the 9.45 acres would be (9.45 acres X \$5,213.00 = \$49, 262.85).

The 6.35 acres of new disturbance being proposed as Task ID # 3593 will require (6.35 acres X \$ 5,213.00 / Acre = \$ **33,102.55**).

The Total Additional Revegetation cost is determined to be \$ **81,597.00**..

CONCLUSION

The new total of the direct costs added for the addition of the 6.35 acres and the associated reclamation of this area is \$ 860,566.00.

The subtotal of the indirect costs is \$ 230,631.69.

The total cost in 2010 dollars amounts to \$ 1,116,295.24.

Escalation of this cost to 2012, which is the next midterm review is \$ 1,127,000.00.

The amount of bond posted for the Wildcat Loadout site is \$ 1, 144,000.00.

There are \$ 17,000 excess monies or a percent difference of 1.48 %.

Terms and Conditions for Liability Insurance

The Permittee maintains a general liability insurance coverage policy which is renewed on an annual basis. This coverage is evaluated four times a year during each of the complete Division inspections.

Findings:

The amount of reclamation bond which is in place is adequate to reclaim the site, including the increased disturbance associated with Task ID # 3593.

RECOMMENDATION:

The Division should approve the Task ID # 3593 application, which is the response to DO-04, Design Drawings and specifications.