



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangertter
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

June 19, 1991

Mr. Jon Passic
Genwal Coal Company/Castle Valley Resources
P. O. Box 766
Wellington, Utah 84542

Dear Mr. Passic:

Re: Deficiencies, Slurry fines removal amendment, ACT/007/012-91A, Wellington Prep Plant, Castle Valley Resources, Folder #2, Carbon County, Utah

On April 25, 1991 the Division received an amendment requesting approval to remove coal fines from the Wellington Prep Plant slurry cells. The amendment has been reviewed by the Division's technical staff and a number of deficiencies in your plan have been identified. The amendment cannot be approved at this time.

The Division realizes that this project is somewhat experimental in nature and the scope of the project may change as the project proceeds. For this reason monthly reporting will be required (See memo from Randy Harden). A commitment to complete the reporting should be included in the amendment.

Approval of this amendment hinges on your prompt correction of the deficiencies as outlined in the enclosed technical memos. Please provide a response on or before July 15, 1991.

Please feel free to call if you have any questions.

Sincerely,

Daron R. Haddock
Permit Supervisor

Enclosure

cc: B-Team
J. Helfrich
WELLCORR.MEM



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June 7, 1991

TO: Daron Haddock, Permit Supervisor

FROM: Randy Harden, Sr. Reclamation Engineer 

RE: **Application for Permit Amendment, Fines Removal, Wellington Preparation Plant, Castle Valley Resources, ACT/007/012, Folder #2, Carbon County, Utah**

SUMMARY:

The operator has proposed a number of various alternatives regarding the potential recovery of coal fines from the slurry ponds at the Wellington Preparation Plant. These proposals were submitted to the Division on April 25, 1991.

ANALYSIS:

The information presented in the proposal does not provide specific and detailed information regarding the removal, handling and processing of the fines materials within the existing slurry ponds. As stated in the proposal, much of the activities proposed in the plan will be dependent upon the initial development of the methodologies to remove and utilize the fines material. Depending on marketability and quality of the materials removed, the operator has proposed several alternatives for the handling and treatment of these fines.

The operator has indicated that all activities with the exception of trucking the materials will occur within the currently approved permit area. The operator further intends to utilize or adapt some of the existing facilities and equipment for use in the processing, storage and transportation of the coal fines materials in the slurry ponds.

RECOMMENDATIONS:

The following recommendations are made in consideration with the operator's proposal for slurry fines removal at the Wellington site.

Due to the variability of the activities proposed, the operator should submit information regarding fines removal on a monthly basis. This monthly report should summarize all activities involved during the reporting period and project activities for the next month. At a minimum, the following information should be provided for each period:

1. The location and the amount of the fines material removed from the slurry ponds, including stockpiled tons and tons shipped off site.
2. Any equipment used for the removal, transportation, and treatment of the fines material shall be listed. The operator shall identify the methods used to minimize water and air pollution impact resulting from removal, storage, transportation or processing of the coal fines.
3. Sampling and analyses information of the coal fines and underlying materials.
4. Any discharges of slurry pond water or waste water from processing of the coal fines shall be sampled and analyzed as required by the Division.
5. Projected activity regarding fines removal for the next month of operation.

This monthly reporting shall occur until such time as the Division revises or eliminates these reporting requirements, or, until the updated operation and reclamation plan for the Wellington Preparation Plant has been received and approved by the Division.

In the event that the operator decides to utilize the slurry pipeline for the transportation of the coal fines, a thorough analysis and testing of the pipeline shall be conducted by the operator to ensure the integrity of the pipeline system. Such testing shall be sufficient to determine average and minimum pipe wall thickness, and, pressure testing of the pipeline using clear water. Such analysis and protections used to protect the area in the event of leakage or breakage of the pipeline during use shall be presented to the Division for review and approval prior to any actual use of the pipeline for conveying slurry materials.

Any road or roads used in conjunction with the trucking of slurry material should be recertified as a primary road. Any roads, whether existing or constructed for this purpose should be incorporated into the disturbed area boundary, certified and maintained in accordance with the regulations. roads currently shown as Class III roads were established for the construction and the maintenance of the slurry ponds. these roads will have to be upgraded to primary roads if the intent of the operator is to utilize these roads for the purpose of haulage. The county road adjacent to the slurry ponds should be incorporated into the disturbed area boundary and approved as an incidental boundary change up to the newly constructed Ridge Road. Trucking of the fines materials on this road cannot be allowed until such time as an incidental boundary change for this area has been approved by the Division.



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June 11, 1991

TO: Daron Haddock, Permit Supervisor

FROM: Rick P. Summers, Senior Hydrologist 

RE: Application for Permit Amendment, Fines Removal, Hydrology Review (Received April 25, 1991), Wellington Preparation Plant, Castle Valley Resources, ACT/007/012, Folder #2, Carbon County, Utah

Summary:

The proposed activity to remove the slurry fines will be confined to the current disturbed area. The proposal is approvable with the reminder that the operation must be conducted within the scope of the existing permit. Some items the operator must conform to are as follows:

1. If the plant is to be used for washing or slurring of the fines, the auxiliary pond, road pond and heat dryer pond, must be operated within the limits of the permit. The ponds have a dual use as sediment control and the plant water volumes must be kept at a level that allows for sediment control.
2. All drainage must be controlled and treated within the existing treatment plan. Of particular concern is the road along the North Dike. If the road is not sloped such that the drainage would report back to the slurry cells, the operator is requested to install a berm or similar drainage control to ensure this drainage pattern. In any event, the operator may be advised to install the berm in order to ensure segregation of the activity from the north dike diversion. It appears as if this activity has great potential for spillage of material into the diversion and attendant enforcement action.
3. The operator is advised that if the operation proves successful and potentially acid- and toxic-forming materials are identified in the planned sampling program, an additional monitoring well may be required at the stockpile area.

RPS/jbe

cc: Sharon Falvey, DOGM

BTWELLFINE



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TO: Daron Haddock, Permit Supervisor

FROM: Paul Baker, Reclamation Biologist 

DATE: June 3, 1991

RE: Technical Deficiency Wellington Fines Removal, Castle Valley Resources/Genwal Coal Company, Wellington Prep Plan, ACT/007/012/91A, Folder #2, Carbon County, Utah

SUMMARY

As an amendment to the Operation and Reclamation Plan (ORP) for their Wellington Preparation Plant and Load-Out Facility, Castle Valley Resources has submitted a plan for recovering coal fines from slurry ponds east of the Price River. This is an experimental process which they hope will reduce or eliminate the need for extensive topsoiling and reclamation research on the fines.

Baseline biological information is provided in the submitted portions of the ORP. Vegetation on the site prior to construction of the ponds was probably greasewood and Torrey seepweed, very poor species for any forage use. Numerous wildlife species inhabit the general area, but these are not expected to be affected beyond current levels by the activities proposed in the amendment.

ANALYSIS

R614-301-150

COMPLETENESS

Applicant's Proposal:

The Application for Permit Amendment was received 4/25/91 and references the ORP for descriptions of the reclamation that will occur. The entire ORP has not yet been submitted, including sections referenced in the amendment proposal, but remaining portions are due 9/1/91 and 12/1/91.

Compliance:

The applicant is not in compliance with this section.

Stipulations:

The remaining portions of the ORP must be submitted when due.

R614-300-133.710

RECLAMATION POTENTIAL

Applicant's Proposal:

Topsoil was not removed from the area covered by the slurry fines when the ponds were built. Several options for reclamation, including methods for handling the topsoil, are discussed. Two of these are to use the topsoil for revegetation either in situ or as a substitute.

Compliance:

The applicant is not in compliance with this section. While samples obtained from drilling have given some indication of the texture of the soil that underlies the fines, its chemical nature and potential for revegetation are unknown.

Stipulations:

The applicant must commit to conducting field studies using the soil underlying the slurry fines to demonstrate that reclamation is feasible.



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TO: Daron Haddock, Permit Supervisor

FROM: Priscilla Burton, Reclamation Soils Specialist 

DATE: June 12, 1991

RE: Technical Deficiency Slurry Fines Removal. Castle Valley Resources/Genwal Coal Co. Wellington, Utah. Carbon County. ACT/007/012/91 A.

SUMMARY

On April 25, 1991, Castle Valley Resources submitted a proposal describing several experimental methods of removing coal from the fine slurry ponds at the former Wellington Preparation Plant.

Coarse and Fine slurry pond refuse contain extremely high sodium and magnesium concentrations, high pH, high boron and selenium levels and high saturation percentage. Removal of the fine slurry would eliminate a source of toxic elements and salts that could potentially:

- 1) diffuse upwards to the plant growth substrate, and;
- 2) migrate downwards into the groundwater.

Removing the fines will also provide a lower elevation for final reclamation (within reach of the water table for some shrub species).

The successful removal of fines will represent the beginning of reclamation at the site as well as a new commercial venture for Castle Valley Resources. If an experimental method is determined to be successful, Castle Valley Resources plans to incorporate the procedure into the upcoming MRP in December 1991. If the techniques described do not develop into a commercially successful venture, then the reclamation plans will remain as written and submitted 1/27/91 and expected 9/1/91 and 12/1/91.

Therefore, this technical deficiency is written on both the Amendment 91-A and the MRP submitted to date.

ANALYSIS

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ACT/007/012-91-A

R614-301-130

REPORTING OF TECHNICAL DATA

Applicant's Proposal:

The Appendix of the application provides preliminary sampling results. In personal discussions with Patrick Collins, I am aware that the laboratories that conducted the analyses were Brigham Young University Soils Lab and Interwest Labs. However, this information was not included in the application.

Compliance:

The Applicant is not in compliance with this section. The submittal must indicate laboratories used with address and telephone number. Any deviation of the laboratories from the suggested methods in "The Utah Guidelines," Table #6 must also be noted with reference to the alternate method used.

Additionally, the date of sampling must be indicated in the Appendix and the location depicted on an exhibit.

Deficiency to be corrected:

Prior to approval Castle Valley Resources must provide information regarding location and date of sampling in the narrative and on an exhibit. The Castle Valley Resources must provide the names, addresses and telephone numbers of the analytical laboratories used to generate the data included in the Appendix of the submittal. Any deviation from the suggested analytical methods in the Utah Guidelines must be mentioned and alternate methods cited.

R614-301-521.100

CROSS SECTIONS AND MAPS

Applicant's Proposal:

The submittal included Figure 1 showing the location of the slurry ponds in a general view.

Compliance:

The Applicant is not in compliance with this section. The submittal must include a map of the disturbed area showing the location(s) of the proposed air drying pile(s) of 10,000 Tons of

coal fines. The application must clarify how many 10,000 Ton piles will be formed. If windrows are to be used, the application must clarify the location of the windrows and the volume of material to be stored in windrows. Maps must indicate the tonnage stored in each windrow and/or pile. The map must be accompanied by a narrative describing the aggregate tonnage to be stored in piles and windrows.

Deficiency to be corrected:

Prior to approval the submittal must contain a map (and associated narrative) clearly showing the proposed location(s) of the storage of coal fines during air drying with the tonnage stored in each pile and each windrow specified. Additionally, the map must indicate the storage location of ash or solids from a thermal dryer and the tonnage. Any disturbance outside the present disturbed area boundary must also be depicted on the map.

R614-301-220

ENVIRONMENTAL DESCRIPTION

Applicant's Proposal:

The upper and lower slurry ponds were constructed in 1957-58. They are located on alluvial soils at an elevation of approximately 5370 feet. The ponds are adjacent to cropland on the north and the Price River on the West. The average annual precipitation is 6-8". The soils in the vicinity of the ponds are Ravola, Billings and Huntington series. They are alkaline, but generally well drained overlying the Blue Gate Shale.

Compliance:

The Applicant is in compliance with this section.

R614-301-222.100

A MAP DELINEATING DIFFERENT SOILS

Applicant's Proposal:

The MRP submitted 1/27/91 includes an updated Soil Conservation Service Soils map (E0 3510) and a Soils Map and Disturbed Area (E0 3339). These maps compile information from two sampling programs. Samples taken by U.S. Steel have number

designations and those taken by Mt. Nebo Scientific have number and letter designations.

Map 4067-6-8B shows the locations of soil samples taken in 1989 by James Leatherwood, prior to the construction of the haulage road.

Several maps were found in Volume IIIA that were not included in the Table of Contents: 4067-6-1A, -8A, -9A, -10A, -17, -17A, -18, -19, -20, and E9 3339, and G9 310. Other maps may also be missing from the Table of Contents.

Compliance:

The Applicant is not in compliance with this section.

Deficiency to be corrected:

Prior to approval Castle Valley Resources must include update the Table of Contents for Vol IIIA of the MRP to include all the maps submitted.

R614-301-222.200

SOIL IDENTIFICATION

Applicant's Proposal:

Survey information provided in the MRP was based on the results of the 1988 SCS Soil Survey and sampling done by U.S. Steel (undetermined date) and by Mt Nebo Scientific in 1983. The soils maps are Drawing G9-3510 and E9 3339.

The soils underlying the fines are alluvial. They are thought to be members of the family fine-silty, mixed (calcareous) mesic Typic Torrifluvents and the family fine-silty, mixed (calcareous) mesic Aquic Ustifluvents.

The soils below the slurry ponds were not salvaged prior to construction of the ponds. Drilling logs in the MRP Vol IIIB Appendix E provide some general information on the soils present below the dikes of the ponds.

Compliance:

The Applicant is in compliance with this section.

R614-301-231.100 METHODS FOR REMOVING AND STORING
TOPSOIL

Applicant's Proposal:

Castle Valley Resources does not anticipate any disturbance outside of the presently affected area. No topsoil handling is proposed.

Compliance:

The Applicant is in compliance with this regulation.

If road construction or equipment movement requires that land not previously disturbed is to be disturbed, than Castle Valley Resources must follow the performance standards of R614-301-250.

R614-301-231.300 TESTING PLAN FOR EVALUATING TOPSOIL
HANDLING AND RECLAMATION PROCEDURES.

Applicant's Proposal:

The topsoil uncovered by the removal of the coal fines will be sampled and analyzed for parameters including but not limited to pH, EC, SAR, Se, ABP, OC, and texture. As presently written, the testing of the topsoil appears to be conditional upon success of the fines removal. But, decisions made prior to choosing the outcomes delineated on pages 21 and 22 under "Experimental Fine Removal Results" will require sampling of the topsoil as it is uncovered.

Compliance:

The Applicant is not in compliance with this regulation. The topsoil must be analyzed before the determination of methodology is made. As stated in the submittal, there are 5 potential outcomes for which soil sampling will be necessary:

OUTCOME #2 & 3	Cover the compacted topsoil with coarse refuse and then reclaim using other substitute topsoil in the permit area.
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OUTCOME #4	Remove compacted topsoil from beneath the fines and store for use as substitute topsoil.
OUTCOME #5	Utilize the compacted soil as a pad for operations during removal and then reclaim the surface. (This outcome is acceptable only because the area was disturbed prior to 1977.)

Based on the sample analyses presented in the Appendix for the fine slurry refuse, the Division will request these additional sampling parameters: total selenium, hot water selenium, total boron, hot water soluble boron, saturation extract boron, total nitrogen, nitrate-nitrogen, phosphates, and potassium. The estimated sodium percentage may be requested depending on the sodium absorption ratio.

Outcomes #2 and 3 involve using the coarse refuse from the current storage pile at the main mine site to provide a stable pad for equipment access. To date, the Division has not received any analysis of the coarse refuse. To determine the toxicity of the coarse material, it must be sampled as described below.

Deficiency to be corrected:

Prior to approval Castle Valley Resources must commit to sampling the uncovered topsoil during the experimental procedure. Samples will be analyzed for the parameters listed in Table 6 of the "Utah Guidelines" as well as for total selenium, total boron, saturation extractable boron, total nitrogen, nitrate-nitrogen, phosphates, and potassium. Samples will be taken every 6" for a depth of 4 feet.

Also prior to approval, Castle Valley Resources must commit to sampling the coarse refuse material according to the Guidelines, Table #6, with the following tests added to the list: total selenium, total boron, saturation extractable boron.

Castle Valley Resources suggests that the removal of slurry fines may result in uncovering the original topsoil with reclamation potential. The application implies that there may or may not be a need for deep ripping of the buried soils (p.23, item 5, "Experimental Fine Removal Results").

The submittal refers in several sections to the reclamation plan included in the MRP. However, substantial portions of the MRP have not been received by the Division: sections 2.23, 2.24, 2.40, 2.41, 2.42, 2.43, 2.44, and 2.50. As indicated in a letter dated 3/21/91, these sections will be submitted on 9/1/81 and 12/1/91.

Compliance:

The Applicant is not in compliance with this section. Castle Valley Resources must commit to deep ripping the surface of the buried topsoil upon reclamation.

Castle Valley must submit the full reclamation plan to the Division for review on schedule.

Deficiency to be corrected:

Prior to approval Castle Valley Resources must commit to deep ripping the surface of the buried topsoil upon reclamation.

Castle Valley Resources must submit the full reclamation plan to the Division for review on schedule.

R614-301-410

LAND USE

Applicant's Proposal:

The land is in Carbon County's Mining and Grazing - 1 zone (M&G-1). A description of the permitted activities within the M&G-1 zone is provided. However, no post-mining land use is explicitly stated in section 4.11 of Volume IA of the MRP.

Compliance:

The Applicant is not in compliance with this regulation.

Deficiency to be corrected:

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Prior to approval the Mining and Reclamation Plan must clearly state the intended post-mining land use.

R614-301-420 AIR QUALITY

Applicant's Proposal:

Genwal Coal Company has an Air Quality Approval Order to operate the Wellington Crushing/Screening/Loading Facility. An approval for slurry fines removal was issued 12/20/86 to U.S. Steel. The approval was updated and transferred to Genwal on 3/12/90 with one condition. The condition is that a removal schedule is presented to the Executive Secretary.

Compliance:

The application is not in compliance with the regulation. The Department of Health must receive and review a removal schedule for the slurry fines.

Deficiency to be corrected:

Prior to approval, Castle Valley Resources must submit to the Executive Secretary of Health a schedule for the slurry fines removal. The schedule and removal plans are subject to approval by the Department of Health. This schedule must be included in sec 4.20 of Volume IA of the MRP, due 12/1/91. The following information must be included in the schedule developed for the Department of Health - Bureau of Air Quality: the tonnage of fines stored in piles, the total number of piles and their locations, the number of tons of fines stored in windrows, the location of the windrows, and the aggregate number of tons stored.

SLURIFIN.MPB