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STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
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4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 7, 1982

Mr. Richard Dawes
Office of Surface Mining
Region V
Brooks Towers
1020 Fifteenth Street
Denver, Colorado 80202

RE: Apparent Completeness Review
Consolidation Coal Company
Preparation Plant & Loadout
Facilities
ACT/015/015
Emery County, Utah

Dear Mr. Dawes:

The Division of Oil, Gas and Mining has completed the Apparent Completeness Review of the Consolidation Coal Company Preparation Plant and Loadout Facilities. The comments forwarded to us from your staff are incorporated into this review.

We would greatly appreciate your staff's prompt review and concurrence, or comments, on this document as we are making every effort to aid the operator in maintaining their construction schedule.

There may be additional comments forthcoming on UMC 784.26 (Air Pollution Control Plan) from the State of Utah, Bureau of Air Quality as their review of the applicant's air quality impact report did not reveal the same issues of concern. We will be in touch with Mr. Bob Bamburg (TPO) of your staff regarding any such comments.

If there are any concerns relative to this apparent completeness review, please call Sally Kefer of my staff.

Sincerely,

JAMES W. SMITH, JR.
COORDINATOR OF MINED
LAND DEVELOPMENT

Enclosure

JWS/SK/btb

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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APPARENT COMPLETENESS REVIEW

Consolidation Coal Company
Prep Plant/Waste Disposal Area

783.12 General Environmental Resources Information

(b) The applicant must submit the following before the cultural resource investigation and plan may be determined complete.

Need site forms for all sites included within the Emery Deep Mine plan area.

Need site-specific eligibility recommendations and potential impact for all sites documented in the 1980 survey report.

Proposed surface modifications and disturbances should be drawn on the cultural resources map (plate 5-1).

A compendium chart consolidating information on all sites in the Emery Deep Mine plan area should be prepared as an appendix to the mine plan cultural resource submissions. The chart should minimally include site numbers, site type, eligibility recommendations and impact statements.

783.19 Vegetation Information

A map that overlaps the vegetation types over the disturbed and proposed disturbance areas.

The mine plan is contradictory in relation to additional disturbance of vegetation. Page 3-50 states that there will be no additional impact or disturbance within the mine permit, however, Table 9-2 indicates an additional 409.2 acres will be affected.

There are some minor discrepancies between figures in the text and corresponding tables. A list of these discrepancies will be supplied to Consol if the applicant wishes to correct them.

The species list for the annual forb community (Table 9-8) should include the perennial grasses encountered during cover sampling (Table 9-9).

The species list for the riparian meadow community (Table 9-33) should include *Scirpus americanus*, *S. paludosus* and *Carex* sp., which were encountered during cover sampling (Table 9-34) and production sampling (9-35).

784.11 Operation Plan: General Requirements

(a) The production values used to determine the quantity of coal refuse which will be produced as presented on pages 15-18 and 15-58 do not match the production values on page 3-44. This apparent discrepancy should be clarified with any implications to current facilities described.

(b)(1) Applicant states that the sedimentation pond will be removed and the site regraded approximately three years after seeding has been established on the preparation plant site (Vol. II, 15.3.5.3). The reclamation time-table (Vol. I, 3.5.6.1) shows removal and reclamation of ponds two years after termination of mining. Applicant should correct this discrepancy.

What is the anticipated time frame for the slurry pond to dry so backfilling and grading can commence? Applicant should include reclamation of slurry pond in the reclamation time-table (Vol. I, 3.5.6.1).

(b)(2 and 4) Refer to ACR comments under Section 784.19 and 817.21-.25 concerning underground development waste and topsoil storage area.

(b)(3 and 5) Discuss the removal of all structures; including disposal of building materials and removal of foundations.

784.13 Reclamation Plan: General Requirements

(b)(1) Refer to ACR comments under Sections 784.11(b)(1) and 784.24.

(b)(2) The bond estimate provided in Table 15-2, Chapter 3 must be substantiated. The applicant should provide volumes, areas and unit costs for all categories shown in the estimate. The applicability of area and unit costs for each specific facility as listed in 15.3.2.1 must be described.

(b)(3) The applicant must include contour maps or cross sections that show the anticipated final configuration of all proposed preparation plant and loadout facilities within the permit area.

(b)(4) The applicant should clarify whether or not vegetation cover will be removed prior to topsoil stockpiling. The location of topsoil stockpiles must be depicted more precisely than on Maps 15-1A and B and the seed mix to be used to stabilize the stockpiles should be given. The applicant must include a soil testing plan as required in UMC 817.25.

Shrub/tree transplanting as mentioned on page 3-58 should be done according to the density of woody plants in the reference areas rather than a general density of 6' x 6' centers for the entire area.

(b)(5) The applicant should provide justification for the use of introduced plant species as per the requirements of UMC 817.112.

Although several seed mixes are proposed for different plant associations, the applicant needs to indicate which mix will be used for each vegetation type that is or will be disturbed.

Alternative species are listed with each mix. Specifically, what species will be used? What species will they replace?

It is suggested that the applicant develop new seed mixes, giving consideration to the native species in each vegetation type (as indicated in the vegetation study) and local conditions.

The appplicant should indicate the rate of application of the mulch to be used.

The applicant should commit to mulching all areas that are reseeded or provide justification for not mulching, i.e., successful stand establishment and erosion control on previous revegetated areas or test plots (UMC 817.114[a]).

The methods proposed to be used to determine the success of the vegetation as required in UMC 817.116 should be described.

The applicant should describe the proposed methods for weed control in the revegetated areas.

Temporary and contemporaneous reclamation should be addressed by the applicant, including: methods to be employed for seeding and mulching; seed mix(es) to be used for topsoil stockpile stabilization; and outslopes on dams, embankments, road cuts, etc., and irrigation and pest (weed) control measures (if used) UMC 817.100.

784.14 Reclamation Plan: Protection of Hydrologic Balance

(b)(1) The plant diversion ditch (plate 15-1 and 15-10) has no apparent outlet point. Applicant must specify outlet for diversion.

It is not clear how the ground water swell occurring from irrigation flows will be diverted. Please clarify.

(c) Describe the means utilized to estimate TDS at 5,000 to 10,000 mg/l for the slurry cell seepage. Upon commencement of operations, a toxicity report should be supplied for the slurry refuse and coarse refuse to justify minimal impact to the ground water regime.

On page 15-36, it states that initial samples from slurry cell monitoring wells will be submitted for complete major and minor components. Has ground water monitoring begun in the six wells designated? Seasonal variation in baseline data must be submitted prior to commencement of surface operations. A list of water monitoring parameters should be submitted as part of the permit application.

784.16 Reclamation Plan: Ponds, Impoundments, Banks, Dams and Embankments

(e) The applicant must demonstrate that sufficient material is available to line the slurry cells with two feet of compacted shale. If a borrow area is utilized, the applicant must address the disturbance and reclamation of these areas in terms of the appropriate regulations. A materials balance should be provided showing the volume of material to be excavated, placed as a liner and liner protector, stockpiled and used in the embankment.

(e)(1) Information, such as drill logs, used to determine the ground water levels in the alluvium and Ferron Sandstone and the top of the Blue Gate Shale should be provided. Field work and/or analyses used to determine the permeabilities of material underlying the refuse area (page 15-29, 0.06 ft/day to 2.70 ft/day) and information on how the void ratios and volumetric water content were determined should be provided.

(e)(3) The assumption that the pore-size distribution is between one and three must be verified (page 15-32). McWhorter and Nelson (1979) state only that the equation is viable for strata with a pore-size distribution between one and three not that this situation is always true.

The information used for the determination of porosity and the basis of the assumption of the value of specific retention stated on pages 15-32, 15-33 and 15-34 should be provided.

How was the value for the water level of 2.7 feet in the fine refuse determined? It appears that from the cell bottom to the top of the dewatering pipe is 2.25 ft.

784.19 Underground Development Waste

Applicant must provide plans for the disposal area-material stockpile area shown on plate 15-1B. Pursuant to 784.11(b)(2)(4) submit a narrative explaining the construction, use, maintenance and removal of the stockpile. Submit maps and cross sections of the stockpile in accordance with 784.23(b)(5). The stockpile is considered an underground development waste disposal area and should comply with the requirements under 784.19 and 817.71-.74 (underground development waste is defined as mixtures of materials that are excavated, moved and disposed of during development and preparation of areas incident to underground coal mining activities). Plate 15-13 portrays the excess waste disposal area off the earth embankment dike (noted from cross-section). Applicant must clarify extent of this waste disposal area.

784.20 Subsidence Control Plan

The subsidence analysis presented by the applicant for the area around the slurry pond and refuse pile did not include an analysis of the effects of retreat mining. Overlaying plates 15-16 and 21-1 indicate that retreat mining will occur in this area in the mid-1980's. Subsidence from this operation and its potential effects on the refuse pile and slurry pond should be carefully analyzed by the applicant.

784.24 Transportation Facilities

The following information should be submitted to show compliance with the designated regulation:

784.11(b)(3) Pursuant to UMC 817.155, .165 discuss general road maintenance. Include sections of 817.95(b)(1-8) as applicable.

Pursuant to UMC 817.156, .166(a)(2) discuss plans for restoration of natural drainage patterns upon final reclamation of roads (submit a postmining topographical map).

784.13(b)(1) Applicant discusses reclamation of roads - 15.3.5.3, page 15-24; the detailed time-table for reclamation (Vol. I, 3.5.6.1, page 3-59) does not include removal and reclamation of roads.

784.24(a) Pursuant to UMC 817.153, .163 submit drainage ditch design and flow calculations for drainage ditches parallel to proposed roads.

Applicant shows cross section and profile of 3-120" culverts for Quitchupah Creek crossing. Submit design criteria and calculations used for culvert design. Pursuant to 817..153(c)(1)(i)-.163, culverts should be sized to safely pass the 10-year, 24-hour precipitation event. Plans for compliance with 817.153(c)(1)(ii-v)-.163 must be submitted.

817.152, .162 The applicant must provide plans for replacement of topsoil and vegetation on cut and fill slopes on the entrance road in compliance with 817.152, .162(c)(2) and d(14).

The applicant must provide plans for placement of fill material on the main entrance road in lifts in compliance with parts 817.152(d)(3) or (4) and (5) through (9).

817.163(c) The applicant must provide plans to install culverts along the coal refuse haulage road that meet the requirements of part (2)(i). Culvert design must incorporate the requirements of Parts (2)(iv) through (vi).

<u>784.26 Air Pollution Control Plan</u>

(a) The applicant should provide a specific air pollution control plan which includes a monitoring program. There should also be an explicit statement of the fugitive dust control practices that will be undertaken. At present, such practices are mentioned in the calculations for dust emmissions but they should be drawn together under one heading.

The applicant needs to give more information on the kind of topography in the area in order to justify the use of the WCDM model over other models such as VALLEY.

Wind roses from all three nearest recording stations should be given and further justification for using, as model input, records from 80 kilometers away. In complex terrain this may not be representative information.

More information on why plume rise is being considered should be given. The operation proposed does not really deal with hot gases existing from stacks.

If this methodology is to be used, how is the data on u (wind speed at stack height) obtained?

The applicant should justify the assumption that "during stable conditions unlimited mixing occurs" and identify the processes by which it occurs at the site in question.

(b) Applicant has proposed that all coal transport belts will be fully hooded and equipped with water sprays at the head sections for wetting stockpiles; that all transfer, preparation, refuse and sample buildings will be enclosed and equipped with dust suppression at all loading and transfer points; and that water will be applied to stockpiles as needed to control dust (Vol. II, Section 15.3.2.1). Pursuant to 817.95(b)(1-8), discuss fugitive dust control measures to be used on all roads associated with the proposed surface facilities.

UMC 817.21-.25 Topsoil: General Requirements

Applicants must supply a soils map of the permit area with an overlay of the proposed area of disturbance for the prep plant and supporting facilities.

Applicant must provide chemical and physical analysis for the Rafael silty clay loam to justify use as growth medium.

The applicant's mine plan proposes to remove two different depths and volumes of topsoil from the same area. Table 15-1 states one removal depth and volume while Table 8-7 indicates a different removal depth and volume. Applicant must indicate which proposed depth of topsoil is to be removed as well as total volume to be removed.

Applicant must provide a map outlining the exact location and dimensions of the topsoil stockpile. Pursuant to UMC 784.23(b)(5), a cross section map of each topsoil stockpile must also be provided.

Pursuant to UMC 783.24 Prime Farmland Investigation, the applicant must provide a letter from Theron B. Hutchings, State Soil Scientist, indicating concurrence or nonconcurrence with applicant's findings.

The applicant should clarify whether or not vegetation cover will be removed prior to topsoil stockpiling. The applicant must commit to a soil testing plan if shown to be necessary for reclamation pursuant to UMC 817.25.

Applicant must address the method to be used for final reclamation of topsoil stockpile areas.

817.93 Coal Processing Waste: Dams and Embankments: Design and Construction

The performance standards listed in this section must be addressed for the coarse refuse dike. The earth embankment has been adequately addressed for this section.

817.97 Wildlife Resources

Further description of field procedures used to supplement existing data should be submitted (UMC 771.23[c and d]). Specifically:

1. The names of the individuals who collected and analyzed the data.

2. Specific dates and time for all study periods rather than the time ranges provided (i.e., dates and time of aerial surveys, aquatic surveys, etc.).

3. Descriptions of the methodology used to collect and analyze the data; including sample sizes, techniques used for determining density and diversity of benthic invertebrates (i.e., sample size, site of collection, method used in collecting, etc) the number of times each habitat was traversed to determine habitat preference, etc.

817.101-.103 Backfilling and Grading

Applicant has submitted a backfilling and grading reclamation plan: Vol. 1.0, 3.5.4 and Vol. 11.0 - 15.3.5.3. Pursuant to 784.13(b)(3) and 784.23(b)(11), submit contour maps or cross sections which show the anticipated final surface configuration of all facilities within the proposed permit area which will assure proper drainage and stability of land surfaces.

Pursuant to 817.85(d), applicant must specify that the coal processing waste will be covered with four feet of the best available nontoxic material. The availability of this material in sufficient quantities must be demonstrated or chemical analysis of the material should be provided to demonstrate that it is nontoxic. 15.3.5.4 addresses topsoil depths to be replaced for reclamation of the coarse refuse and slurry disposal areas. However, there is no justification based on a toxicity analysis.