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July 26, 1982

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DIVISION OF
OIL, GAS & MINING

JIM
AUG 09 1982

Mr. James W. Smith, Jr.
Coordinator of Mined Land Development
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Re: Conditional Approval of the Facility Modification for the Emery Deep Mine - ACT/015/015

Dear Mr. Smith:

This submittal is in response to your letter dated May 27, 1982. In this letter you notified us of conditional approval of our facility modification contingent upon Consol's written acceptance, fulfillment of the stipulations and the posting of the required surety.

PART I - STIPULATIONS

In order to address the stipulations, we have listed the stipulation as shown in the corrected stipulation summary included with Ms Sally Kefer's letter dated June 2, 1982, followed by Consol's response.

UMC 817.52 Surface and Ground Water Monitoring

Stipulation 5-27-82-SK

Consol should notify DOGM on the status of the ground water baseline monitoring program.

Consol Response

Six alluvial ground water monitor wells were completed in the period April 21-26, 1982 in accordance with the ground water monitoring plan outlined in our application. Water samples have been obtained for complete major and minor chemical analysis. We intend to monitor water levels and collect samples for the analysis of pH, TDS, Na, SO_4, Fe and Mn on a monthly basis. We will submit the results of the first quarter of monitoring on September 1, 1982.

UMC 817.58 Stream Buffer Zones

Stipulations 5-27-82-LK

The area within 100 feet of Quitchupah Creek will be established as a stream buffer zone and be appropriately marked as specified in UMC 817.11.

Consol Response

Prior to construction, the area within 100 feet of Quitchupah will be clearly marked and no disturbance will occur except as necessary to construct the haulroad and diversions as shown in the approved application. Where construction is necessary within the buffer zone, temporary sediment control measures will be used so as to minimize the addition of suspended solids to Quichupah Creek.

UMC 817.81-.85 Coal Processing Waste Banks

Stipulations 5-27-82-CY

1. The applicant must outline a plant for site inspections by a qualified engineer as required by UMC 817.82.

2. Design calculations included in the plan (15.6.3) do not show the static factor of safety for the coarse refuse waste banks. This must be presented as discussed in UMC 817.85.

Consol Response

1. The slurry pond and coarse refuse disposal area will be inspected by a qualified professional engineer or other person approved by the Division at lease on a quarterly basis beginning within 7 days after preparation of the disposal area begins. Inspections will also be performed by a certified impoundment inspector, in accordance with MSHA regulations, on at least a weekly basis. Inspections shall include such observations and tests as may be necessary to evaluate the potential hazard to human life and property, ensure that all organic material and topsoil have been removed and that proper construction and maintenance are occurring. Inspections will occur until the areas have been regraded and topsoil has been respread over the area. Copies of the inspection findings will be maintained at the mine office. If

any inspection discloses that a potential hazard exists, the Division will be promptly notified and informed of the procedures to be taken for public protection. If adequate procedures cannot be implemented, the Division will be notified immediately.

2. Additional calculations are provided as a separate attachment.

UMC 817.86-.87 Burning and Burned Waste Utilization

Stipulations 5-27-82-CY

1. A specific plan for extinguishing coal processing waste fires should be submitted to the Division for approval as required by UMC 817.6.
2. A discussion on the removal of burned coal processing waste, should be submitted with this plan as discussed in UMC 817.87.

Consol Response

1. Should a fire occur in a coal processing waste pile, the mine superintendent and safety director will be immediately notified. The superintendent, safety director or other person familiar with refuse fire extinguishment methods, will supervise extinguishing the fire. Due to the variable nature of coal refuse fires and consequently the variety of dangers

involved in extinguishing them, it is necessary to choose the techniques best suited to the particular fire. Generally the techniques can be divided into three categories:

1. Physical Removal
2. Surface Treatment
3. Internal Treatment

Table 7.3* describes the techniques and the limitations of each.

* Source: Engineering and Design Manual for Coal Refuse Disposal Facilities; U.S.Dept. of the Interior - Mining Enforcement and Safety Administration.

2. Before any burned coal processing waste, refuse or other materials are removed from the disposal area, a plan will be submitted to the Division for approval. This plan will be prepared and certified by a qualified engineer. The plan will include maps and drawings to show the proposed sequence of operations and a discussion of the proposed method for removal and placement.

TABLE 7.3

FIRE EXTINGUISHMENT TECHNIQUES

Method		Brief Description	Limitations
Physical Removal	Excavation	. Burning refuse excavated from embankment; extinguished or allowed to burn itself out; facility regraded and sealed.	. Equipment damage . Dust and noxious fumes . Access to burning material . Possible cave-ins limit machinery use . Weakens refuse facility
	Water cannons	. Water cannons used to dislodge and quench burning refuse; quenched material replaced and recompacted on refuse facility.	. Source of quenching water . Weakens refuse facility
	Accelerated combustion and quenching	. Burning refuse removed by dragline; hoisted over pond of water and allowed to drop; burns while falling; quenched by water; material removed and replaced on refuse facility.	. Quenching pond . Damages equipment . Dust and noxious fumes . Weakens refuse facility
	Isolation	. Burning portion of refuse isolated by excavating wide ditches around it; burning portion quenched or buried with inert sealing material; trenches refilled with non-conducting inert material.	. Access to burning material
Surface Treatment	Blanketing or sealing	. Entire burning embankment covered with mantle of clay or soil; compacted; burning is smothered.	. Limited to small facilities . Cost . Maintaining seal's integrity . Possible cave-ins of burning voids . Source of clay or dirt
	Foam covering	. Entire refuse facility is sealed with a commercial foam blanket; oxygen denied the refuse; burning is extinguished.	. Cost . Facility size . Maintaining a seal . Can't use where burning is near surface
	Rice paddy technique	. Well suited for large flat refuse facilities; dikes constructed around perimeter of top with intermediate dikes; dikes flooded; water percolates into burning portion of embankment; fire quenched.	. Supply of water . Possible cave-ins limit machinery use . Slow . Stability
	Water sprinklers	. Burning refuse facilities are "wet-down" or saturated by a system of sprinklers until burning is extinguished.	. Water source . Size of facility . Saturation weakens structure . Reignition possible . Porosity of refuse
Internal Treatment	Multiple well point system	. Horizontal insertion of perforated metal piping near base of embankment; water injected and percolates downward into burning refuse; pipes removed and reinserted in higher strata; process repeated for total structure.	. Source of quenching water . Slow . Weakens refuse facility
	Slurry injection	. Holes drilled vertically into burning embankment at various depths; liquid slurry injected into burning voids; steam vent pipes inserted; heat reduction monitored.	. High unit cost . Slow . Stability

UMC 817.99 Slides and Other Damage

Stiplulation 5-27-82-CY

Applicant shall commit to notifying the Division of any slides or surface failures which may occur during operations and shall work in conjunction with the Division to devise remedial measures.

Consol Response

Should a slide or surface failure occur which has an adverse effect on public property, health, safety or the environment, the Division will be promptly notified and the remedial measures agreed upon by Consol and the Division will be followed.

UMC 817.131-.132 Cessation of Operations

Stipulation 5-27-82-SK

Consol will commit to notifying the Division of the intention to cease preparation plant operations prior to such an occurrence.

Consol Response

Prior to a cessation of operations at the preparation facility which will last for more than 30 days or as soon as it is known that a cessation will last more than 30 days, a notice will be sent to the

Division of our intention to cease operations. This notice will include a description of the horizontal and vertical extent of disturbance, the extent and nature of completed reclamation and the types of monitoring that will continue during a temporary cessation. Closing the plant for repairs or maintenance will not be considered a temporary cessation even if repair work takes longer than 30 days.

UMC 817.15-.156 Roads: Class I

Stipulation 5-27-82-CY

The designed safety factor for road cuts, fills and embankments needs to be submitted for the new roads, along with the basis for safety factor calculations (refer to UMC 817.152 D 9).

Consol Response

The design safety factor for typical cut slopes and embankment slopes along with safety factor calculations have been included as a separate attachment.

PART II - COMMENTS ON THE OGM TECHNICAL ANALYSIS

We have two comments on the Technical Analysis. We have shown the section, the "Applicant's Proposal" as written by the OGM, "Compliance" as written by the OGM followed by our comment.

UMC 817.11 Signs and Markers

Applicant's Proposal

The applicant has not specifically discussed the use of signs and markers. Upon initiation of construction of the preparation plant and facilities, perimeter markers should be distributed in an appropriate manner.

Compliance

Consol will be in compliance with this section by meeting the requirements of this performance standard during operations.

Consol Comment

As discussed with you on June 8, 1982, we think that marking the perimeter of the disturbance area rather than the permit boundary would provide the best protection to the state and also provide a useful tool for us in keeping our operations inside the area for which we have an approved reclamation plan and bond. Therefore, we request a variance from the requirement to mark the permit boundary under the condition that we mark the disturbance boundary prior to any further construction in the preparation plant area.

UMC 817.48 Acid-forming and Toxic-forming Materials

Applicant's Proposal

The amount of runoff occurring from the disposed coarse refuse material will be minimized through the use of a drainage diversion structure above the refuse area. The runoff which does occur from the coarse refuse will be routed through the slurry cell impoundment for reuse in the preparation plant.

The potential for oxidation of pyritic materials which were identified in a coarse refuse sample will be minimized by reducing the pore space within the refuse by compaction during construction of the pile. Consol has proposed a minimum five foot cover of subsoil and topsoil over the coarse refuse pile and slurry impoundment upon final reclamation. The final grading plan provides for "naturally" flowing drainage patterns over these impoundment area.

Consol Comment

Based on an engineering estimate of the require earthwork, we will have approximately five feet of material available for covering the coarse refuse area and slurry impoundment. The purpose of the earthwork balance was to show that the required four feet of non-toxic material is available. Therefore, we wish to clarify our intention to cover the disposal area with a minimum of four feet of non-toxic material rather

than five feet. This is accurately reflected in the T.A. under UMC 817.81-.85.

PART III - RELCAMATION BOND

A surety bond for $2,592,992 has been included with this submittal. The unit costs included for earthwork and transplants are higher than our historical reclamation costs at the other mines. Our scraper haulage costs generally have run from $.75 to $1.00 per cubic yard and our transplant costs have run from $.50 to $1.00 per plant. We may wish to discuss these unit costs with you during the deep mine permit review.

Conclusion

On behalf of Consolidation Coal Company, I accept the approval conditions as outlined in your letter of conditional approval and as discussed in this submittal. We have enjoyed working with you and your staff and appreciate the considerable effort put forth on our behalf. If you have any questions, please contact me.

Sincerely,

Dave Schouweiler

Dave Schouweiler P.E.
Permit Coordinator

DAVID A. SCHOUWEILER
REGISTERED
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cc: J. T. Higgins
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