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

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March 9, 1983

Mr. Merrill Heward
Mining and Exploration
Utah Power & Light Company
1407 West North Temple
Salt Lake City, Utah 84110

RE: Apparent Completeness Review
Utah Power & Light Company
Des-Bee-Dove Mine
ACT/015/017 #2
Emery County, Utah

Dear Mr. Heward:

Enclosed please find a copy of the Division's Apparent Completeness Review (ACR) for UP&L's Des-Bee-Dove Mine. The ACR, in an effort to expedite the review process, has listed areas that are incomplete as well as addressed areas that will require additional information necessary to proceed with a Technical Analysis (TA). The Office of Surface Mining's (OSM) comments have been integrated into the ACR, as have the concerns expressed by other relevant federal and state agencies.

The next phase of the Des-Bee-Dove Mine review, the Determination of Completeness, is scheduled for July. Therefore, it is necessary that the Division receive UP&L's response to this document by June 20, 1983 in order that we may be able to maintain our objectives of repermitting all existing operations as soon as possible.

If you have any questions concerning the ACR, please contact me or Mary Boucek of my staff. We would be more than happy to arrange a meeting to discuss or clarify any items which you think would help you in your resubmission and further facilitate the review process.

Sincerely,

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

JWS/MMB:btb

Enclosure

cc: Allen Klein, OSM, Denver

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

APPARENT COMPLETENESS REVIEW

Utah Power & Light Company
Des-Bee-Dove Mine
ACT/015/017, Emery County, Utah

UMC 771.23 General Requirements for Format and Contents

The applicant has assembled the application in a format consistent with the Division of Oil, Gas and Mining's (DOG M) permanent regulations, Sections UMC 771 through UMC 786. No cross-reference is provided in the application to assist Minerals Management Service (MMS) in its review for compliance with 30 CFR 211.10(c) regulations. This cross-reference is required by MMS for compliance. The application is deficient in the following 30 CFR 211 requirements and should include a discussion of each item.

1. Federal regulation 30 CFR 211.10(c)(6)(ii) requires that the plan show, for any lease issued or readjusted after August 4, 1976, the sequence of mining of all the reserves beyond the first five years.
2. Federal regulation 30 CFR 211.10(c)(6)(vii) requires the method of operation and measures by which the operator plans to comply with 30 CFR 211.4 and 211.40 and any special terms and conditions of the lease permits or licenses. This can be by narrative statement including only those items related to resource recovery.
3. Federal regulation 30 CFR 211.10(c)(6)(viii) requires, in part, the number of acres of lands that may be affected by each phase of the underground mining operation.
4. Federal regulation 30 CFR 211.10(c)(6)(x) involves maximum practicable recovery of the resource. Any area not shown as being mined is to be explained. This also includes leaving top or bottom coal.
5. Federal regulation 30 CFR 211.10(c)(6)(xi) requires narrative describing the method of abandonment of coal mine operations including the involvement of MMS. Also, MMS involvement and approval is necessary for sealing of portals on Federal leases or areas that may affect Federal coal. This is to be a part of the narrative on page 4-1, Part 5, Volume 2 (typical portal seals).
6. The operator is required to furnish complete logs of all exploration drill holes, both surface and underground, in Federal leases that have not been submitted previously to the District Mining Supervisor, MMS, or make a statement that no additional logs exist. This is required by 30 CFR 211.10(c)(6)(xii).

7. Regulation 30 CFR 211.10(c)(6)(xiv) requires plans for protecting oil, gas and water wells as well as oil, gas and underground water resources, when encountered. Provide this information.
8. Regulation 30 CFR 211.10(c)(7)(v) requires details of the planned mine layout and the inclusion of the approved Roof Control and Ventilation plans. Appendix III and IV of volume 3 are approved copies of these plans except for prints of the ventilation maps (mine maps, 1" = 200'), also approved by Mine Safety and Health Administration (MSHA). The subject submittal plans must conform with the approved MSHA plans.
9. Regulation 30 CFR 211.10(c)(7)(v) also requires an isopach map of overlying strata over underground mines on 250-foot intervals. Maps 2-9 and 2-10, Volume 4, furnish this information on 500-foot intervals. The operator is required to modify the existing maps.
10. Regulation 30 CFR 211.10(c)(7)(v) also requires copies for the District Mining Supervisor, MMS, of any subsidence data furnished to the regulatory authority under 30 CFR 784.20.

UMC 782.13 Identification of Interests

Figure 1-1 (Coal Ownership Map) and Figure 1-2 (Surface Ownership Map) identify coal lease boundaries and surface ownership boundaries as well as the applicant's permit area boundary. Since all mines operated by the applicant (Deer Creek, Wilberg and Des-Bee-Dove) are located on one map, it is not possible to locate the permit area for any one mine. The applicant should submit a map that locates the permit area for the Des-Bee-Dove Mine.

The applicant should discuss the current status of the exchange of PRLA's in Garfield County.

UMC 782.15 Right of Entry and Operation Information

Figure 1 of the mine plan shows an area east of the Deer Creek Fault in Section 2, Lease No.'s SL-064621 and SL-064607 as being part of the Des-Bee-Dove Coal Mine permit area. This area is not so designated in the Right-of-Entry section. Which is the correct presentation?

(a) The applicant lists (pages 1-5/6) the federal and private coal leases for operations at the Des-Bee-Dove Mines and states that the leases have all been subleased or assigned to UP&L. The applicant should provide a description of the documents conveying the right-of-entry to UP&L. The description shall identify those documents by type and date of execution, identify the specific lands to which the document pertains and explain the legal rights claimed by the applicant.

UMC 782.17 Permit Term Information

The application contains several tables (Tables 1 through 5, page 3-6) and maps (Maps 3-1 and 3-2) showing each phase of mining through 1991. This information is useful in understanding the total mining and reclamation plan; however, it must be pointed out at this time that unless the applicant specifically requests and justifies a longer permit term, it is assumed that the permit will be for five years.

UMC 782.18 Personal Injury and Property Damage Insurance Information

The applicant describes that the insurance coverage will be maintained in full force and effect during the life of the permit or any renewal thereof. The applicant needs to include a rider that the insurance company will notify the Office of Surface Mining (OSM) and the DOGM if substantial changes are made to the policy and the applicant must confirm that insurance will be kept in effect through completion of reclamation.

UMC 782.19 Identification of Other Licenses and Permits

The Des-Bee-Dove Mine is operating under a tentative approval in compliance with Section 40-8-23 of the Utah Mined Land Reclamation Act in that the applicant has submitted a Notice of Intent and Mining and Reclamation Plan in compliance with the 30 CFR 211 regulations and is operating with the expressed permission of the DOGM pending final approval. This is not to be considered an approved mining permit as stated on page 1-10.

UMC 783.14 Geology Description

Table A, Chapter 2, presents the data from chemical tests on core samples taken from the mine area. It does not separate these samples by stratum from which they were taken. The data should be presented by stratum; Blackhawk, Starpoint, Mancos, etc.

Analyses of coal samples included in Table A does not indicate which seam was sampled or if samples are from both seams. The applicant should show the analysis for each seam to be mined.

UMC 783.16 Surface Water Information

It is requested that the applicant provide an estimate of sediment yield in order for the regulatory authority to determine postmining impacts. This estimate can be obtained from the sediment volume accumulation in the existing sedimentation pond. Due to the construction of the new road, connecting the Wilberg Mine and the Des-Bee-Dove Mine, the sediment accumulation within the existing pond will increase. The applicant must maintain a regular inspection of the sediment pond and maintain its adequacy to handle the increased sediment loads.

UMC 783.17 Alternative Water Supply

The applicant proposes (page 2-88) to divert water from springs into areas where other springs may have stopped flowing. The applicant must demonstrate the ownership of sufficient water rights to accomplish this diversion.

UMC 783.19 Vegetation Information

The 1:24000 vegetation map (Exhibit 2-13) is incorrect in the delineation of vegetation types in some areas. This map should be redrawn correctly and resubmitted.

The permit application lacks a vegetation map of larger scale (1:6000 or larger), depicting vegetation types in the immediate area of disturbance. This large scale map should also delineate reference areas (to scale), contain the legal description and be marked so that reference may be made to the 1:24000 scale map.

Though field data sheets are presented in Appendix II, data parameters (mean, standard deviation, number of samples, etc.) for cover and density should be clearly displayed in the text as per UMC 771.23(b). Sampling adequacy should be demonstrated and tree density should be calculated on a number of plants per unit area basis.

Division analysis of field data presented for the Pinyon-Juniper Reference Site indicate total vegetation cover of 30 percent, not 31 percent as is stated in the Vegetation Information section of the MRP.

Shrub density data (methods, number of plants per unit area, statistical adequacy of sampling, etc.) needs to be provided for both the Pinyon-Juniper and the Salt Desert Shrub reference sites.

Productivity data or a statement of productivity from the Soil Conservation Service must be provided as well as a statement of range condition for the reference areas. The latter should be in fair condition or better; otherwise it will have to be managed for improvement. It may be possible to correlate the necessary productivity information for the Pinyon-Juniper and Salt Desert Shrub reference sites with information contained in the soils information section of the MRP.

The applicant should clarify exactly how many acres are disturbed by the mine, including the sedimentation pond area. A discrepancy exists in that it is stated on page 2-95 that 20 acres are disturbed whereas Table 2 in the Vegetation Information section indicates eight acres of pinyon-juniper and 1.5 acres of salt desert shrub, a total of 9.5 acres, have been disturbed.

UMC 783.22 Land-Use Information

(a) A statement of the productivity and condition of the land affected must be submitted. Since the area was previously disturbed, a statement of the condition and productivity of the undisturbed areas in the vicinity of the mine should be substituted. An attempt must be made to contact the U. S. Department of Agriculture or other agricultural agencies for an estimate of the average yield as required under this section. This information may be correlated to productivity and range condition information necessary, as requested under UMC 783.19.

(1) The application lacks a land-use map.

UMC 783.24 Maps: General Requirements

(a) Maps of the permit area should be of scale 1" = 500'; refer to maps CM-10368-BH, CM-10371-DS.

(d) Are there any existing buildings within 1,000 feet of the permit area? If so, please indicate with appropriate map and identification.

UMC 783.25 Cross-Sections, Maps and Plans

(d) The applicant should clarify strike and dip of coal outcrop lines on Map 2-2.

(e) The applicant should include a map of active or inactive underground mines, including openings to surface within adjacent areas, showing location and extent, with approval of registered engineer or geologist.

(k)(1)(2)(3) The applicant should submit sufficient slope measurements to adequately represent the existing land surface configuration through the Des-Bee-Dove Mine surface facilities area. Geologic cross-sections are helpful but should include correlation to a topographic map.

The applicant should also show on Map 2-2, Contour Map, sufficient measurements for 100 linear feet below the coal outcrop and mining disturbance.

(j) The overall general strike and dip of the Blind Canyon Seam and the Hiawatha Seam should be included either in the narrative or on the coal outcrop lines on the maps.

UMC 783.27 Prime Farmland

The applicant must submit a letter from the Soil Conservation Service (SCS) stating that that agency has reviewed the permit area and has or has not found any soils present that are classified as prime farmland.

UMC 784.11 Operation Plan: General Requirements

(b)(5) A letter from the State Department of Health, Division of Environmental Health, May 21, 1982 to UP&L requests information regarding the septic tank and drainfield system as well as discussion of a spill prevention control plan for the diesel and gasoline storage at the Des-Bee-Dove Mine. Please provide documentation that UP&L has provided the Department of Health with this information.

UMC 784.12 Operation Plan: Existing Structures

The applicant states on page 3-49 of the Mine Report that #(1) earthen structure is the tipple area, yet Map 3-6 shows that #(2) is the tipple and storage area; for clarity it will be referred to as the #(1) earthen structure.

Since the earthen #(1) structure is a Head of Hollow fill with no underdrainage, the applicant should state the nature, findings and result of the ongoing stability investigations and who is performing them. Also, will the outslope be lengthened to 1.7H:1V (as indicated by Rollins)? The applicant should submit a more detailed reclamation plan concerning this structure with final configuration cross-sections, profile maps and any hydrological "structures" such as channels, riprap and drains.

UMC 784.13 Reclamation Plan: General Requirements

(a)(2) The applicant should clarify quantities in the reclamation cost estimate pertaining to:

1. Lot size (i.e., yd³, acres, backfilling, regrading, etc.).
2. The applicant should show how cubic yards in reclamation figures were arrived at.

(4) The applicant must submit a proposal that more clearly identifies the soil material that will be used as a plant growth medium.

The mine plan identifies areas that may have good potential for use as a growth medium but does not indicate which materials will be used, the volumes and the methods of redistribution.

The applicant must submit a plan that clearly addresses all areas under UMC 817.22(e), Topsoil Substitute and UMC 817.24, Topsoil Redistribution.

(b)(7) The plan should contain a description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials and materials constituting a fire hazard are disposed of in accordance with UMC 817.89 and 817.103 and a description of the contingency plans to preclude sustained combustion of such materials.

UMC 784.14 Reclamation Plan: Protection of the Hydrologic Balance

Figure 4-1 shows a drastic gradient change near the area of the existing tipple for the reclaimed channel. Velocities for this section exceed 14 feet per second (page 42). The applicant should demonstrate that the riprap will be sufficient to prevent excessive erosion of the fill.

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

The applicant asks (page 4-6) for an exemption to subdrainages on the existing coal processing waste bank. Page 2 of Appendix X indicates that the applicant may intend to continue dumping coal wastes at the present location and continue down the canyon. However, the downstream face has been covered with earth materials as if in a final configuration. Please clarify.

The reclamation plan for the facilities area utilizes a riprapped channel for conveyance of surface flows across the coal waste embankment (presently the storage yard). However, UMC 817.83(b) requires that surface water runoff from the area above the fill shall be diverted away from the fill and into stabilized diversion channels. The applicant will, therefore, not be in compliance and must either modify the water conveyance proposal or apply for a variance.

The calculations used in determining peak flows, channel configurations and energy dissipator size were not listed. A more complete, detailed section needs to be supplied in regards to channel design and construction. The design storm values do not appear to be correctly selected. The validity of these values must be proven as the Division feels they are too low.

What hydrological controls will be installed to maintain water quality besides riprap? What class size riprap will be necessary to handle expected velocities?

It is stated on page 4-2, "control of the direction of flow is more important than velocity control." This statement does not state why or how the berms to be constructed to divert flow were designed or of what material they are to be constructed. This design information must be submitted for review purposes. The applicant must also state whether these berms will be maintenance free.

The applicant must prove that erosion of the coal waste embankment will be prevented by the conjunctive use of the energy dissipator and coal waste embankment channel.

UMC 784.23 Operation Plan: Maps and Plans

The applicant should supply maps of the current water distribution system within the mine. This should include the location of the water connection between the Wilberg and Des-Bee-Dove Mine and the location of the sump areas.

Drainage from storm runoff flows into the mine and this drainage should also be diagrammed on the map showing a connection between the storm drainage and the sump areas.

UMC 784.24 Transportation Facilities

The applicant should provide the horizontal scale for the road cross-sections of Map 3-5.

UMC 817.13-.15 Casing and Sealing

The applicant must show that proper casing and sealing, in accordance with this section, is planned or has been accomplished for all exploratory bore holes within the permit area. Data submitted should include borehole locations, depth and type of casing or sealing.

UMC 817.55 Hydrologic Balance: Discharge of Water into an Underground Mine

The applicant has not supplied the necessary information regarding the permits needed to transfer water between the Wilberg Mine and the Little Dove Mine. It should be noted that the transfer of water from one drainage area to another is considered a water rights issue and should be dealt with accordingly. The applicant also has not submitted the necessary information about permits regarding the capture of storm runoff from the surrounding hillsides into the mine sump. The appropriate agencies must be contacted and permits obtained for these operations (i.e., State Engineer's Office, Utah Division of Water Rights and MSHA).

All aspects of UMC 817.55 of the Utah Mining Code shall be complied with, including supplying the DOGM with quantity and quality of the water that is diverted into the mine portals. This information shall be submitted on a quarterly basis.

UMC 817.97 Protection of Fish, Wildlife and Related Environmental Values

On page 4-29, the applicant states that an education program for employees would be developed. This does not constitute a commitment to this proposed mitigative action. Further, reducing vehicle speeds on haul roads to 50 mph is not much of a reduction and it is recommended that speeds be reduced to 35-40 mph on haul roads which traverse important wildlife habitats (e.g., big game winter ranges during the November-May period), particularly during night and crepuscular hours. The employee education program should emphasize the value of all wildlife, not just deer and raptors, and should be conducted by qualified personnel and approved by DOGM. The Utah Division of Wildlife Resources (DWR) currently offers such a program to coal operators.

DWR's mitigation plan is included in the application without comment. The applicant must adapt the appropriate DWR recommendations into a mitigation program, employing terminology indicative of commitments to those mitigations, i.e., verbage such as "could," "would," etc., must be changed.

UMC 817.99 Slides and Other Damage

The applicant should commit to notifying the Division of any slide or rock fall having potential adverse effects as per the requirements of this section.

UMC 817.100 Contemporaneous Reclamation

The applicant must commit to the timely stabilization of areas disturbed by mining. As mentioned in the revegetation discussion under UMC 817.111-.117, the applicant needs to furnish the current status of reclamation activities at the mine and supply information concerning the timing of interim revegetation and stabilization plans.

UMC 817.103 Backfilling and Grading, Covering of Coal and Acid- and Toxic-Forming Material

The applicant indicates a possibility of encountering toxic debris during reclamation. A plan, in accordance with UMC 817.103, must be submitted.

UMC 817.106 Regrading or Stabilizing Rills and Gullies

The applicant must submit a plan to correct the problem of rills and gullies should they be encountered during reclamation efforts.

UMC 817.111-.117 Revegetation

Both the interim and permanent revegetation plans generally lack sufficient detail to allow assessment of their feasibility and effectiveness.

For interim revegetation, the applicant must state the seeding rate (in Pure Live Seed [PLS]) and the rationale for the proposed fertilization rates. Shrub spacial arrangements should also be addressed. Interim revegetation will be one of two kinds: short-term (less than 3-5 years); or long-term (extending through the life of the mine). Each area to be revegetated during the interim should be addressed in this light. Though shrubs are not mandatory for short-term revegetation, the interim revegetation species list (both short-term and long-term) should contain forbs, particularly nitrogen fixing legumes.

DOGM encourages the use of and monitoring of a variety of plant species and treatments for long-term interim revegetation in order to assess and amend, if necessary, the final revegetation plan. The applicant is urged to develop revegetation test plots during the interim revegetation period which utilize species intended for use in final reclamation, along with various treatments (topsoil depths, soil stabilizing techniques, mulch and moisture retention techniques, etc.). A monitoring plan for revegetation should be

developed in order to assess the success or failure of various species and techniques employed. The applicant also needs to detail plans with respect to irrigation and weed control, the latter in light of past revegetation failures and the persistence of Russian thistle (Salsola kali) at the mine. The timing of the interim revegetation plan's initiation should be discussed.

For permanent reclamation, DOGM believes that the species selected to revegetate the pinyon-juniper areas (main minesite) are appropriate, though it is recommended that Amelanchier utahensis be substituted for A. alnifolia due to its greater drought tolerance. It is also recommended that the seeding rate for Salina wildrye (Elymus salina) be reduced to two-three pounds/acre PLS due to its small seed size.

For revegetation of the salt desert shrub area (sediment pond), the applicant is advised to add another grass species (such as a salt tolerate Agropyron spp., or Sitanion hystrix) and to include forbs, such as Oenothera spp., Sphaeralcea ambigua, Atriplex patula, Melilotus officinalis, for a seeding rate, grasses and forbs combined, of 20 pounds/acre PLS.

For final revegetation, the applicant is advised to establish forbs from seed as opposed to transplants due to the anticipated expense entailed with successfully transplanting enough forbs to establish sufficient cover and diversity. An amended plan should include the seeding rate for forbs (in PLS) if it is decided to adopt this recommendation. It appears that the applicant intends to stock transplanted shrubs and forbs at the rate of 1,000 total transplants per acre in the pinyon-juniper area and transplant shrubs at the rate of 400 plants per acre in the salt desert shrub area. There is no rationale given for the selection of these stocking rates. Shrub stocking rates should be correlated to shrub density of the corresponding reference area, as the latter is intended to serve as the standard for evaluating revegetation success and subsequent bond release. It is, therefore, advised that the applicant amend the final revegetation plan by correlating shrub stocking rates to reference area shrub density. The applicant may also want to consider the option of eliminating pinyon pine (Pinus edulis) from the plan and increasing shrub stocking rates concurrently in order to meet overall woody plant density standards. It has been suggested that by so doing, wildlife habitat may be enhanced. Plant groupings should be distributed so as to maximize benefit to wildlife (UMC 817.97), i.e., the reclamation plan should address plant spacial arrangements since wildlife habitat will be a primary postmining land-use.

In addition to the above, the applicant must supply further information pertaining to: the rationale for and rate of hydromulching; the triggering event for irrigation and the source, timing and application rate of any irrigation; details of a revegetation monitoring plan and sampling procedures at the time of bond release; grazing management plans (e.g., will reclaimed areas be fenced during the liability period, etc.); weed control practices; reference area management during the life of the mine and during the liability

period; assessment of species diversity, i.e., how the diversity of the revegetated area will be compared with the reference area. In order to aid in the assessment of revegetation plans, the current status of revegetation on the minesite must be detailed.

Cultural Resources

The cultural resources submission is the same for the Wilberg, Deer Creek and Des-Bee-Dove mines. As such, they were reviewed together as if they were a single submission. The basic document under consideration is entitled "Archaeological Sample Survey and Cultural Resource Evaluations of the East Mountain Locality in Emery County, Utah," prepared by Hauck and Weder 1980.

How were the various sample sizes and locations chosen? Were the eight earlier 160 acre sample areas considered in the sampling procedure?

A number of historic mines (Johnson, Anderson, Huntington) are located near the project boundaries. If they fall within or will be impacted by (either directly or indirectly) mining operations, they will need to be recorded and then eligibility for nomination to the National Register of Historic Places determined.

The following site forms are needed for evaluative purposes; 42EM 1307, 1308, 1309, 1310, 853, 854 and 855. A discussion of survey, recording and collection techniques and methodologies utilized is needed. Brief site descriptions to complement the site forms are needed. Eligibility recommendations are needed for the seven sites. The cultural resource rating system is no longer utilized. Those sites rated 2 and 3 are likely eligible for nomination to the National Register.

Socioeconomics

Although the mine is an existing operation, the following information would be useful:

1. Number of mining employees (construction, if any, and operation) by year for the life of the mine, including average annual salary information, if possible.
2. Any information concerning where existing and/or future employees may reside and their mode of transport to work, i.e., carpool, private auto, etc.
3. Any data the company can provide concerning tax revenues contributed to local municipalities.

It would also be helpful if the company would provide documentation of any past and/or future contributions or assistance given to communities surrounding the mine (e.g., financial contributions, employee transportation system, housing assistance to employees, etc.).

Summary

In summary, the Division has bowed to the decisions of Judge Flannery, remanding for revision many areas of the regulatory requirements. The Board of Oil, Gas and Mining has suspended corresponding State regulations pertaining to these decisions. The Division has reviewed fish and wildlife, soils and standards for revegetation success information pertinent to the Des-Bee-Dove Mine Plan and identified deficiencies which, under revised regulations to be promulgated, may be upheld as deficiencies. The Division, in view of this predicament, has incorporated above what is needed for assessing the reclamation and operation plans to meet the performance standards in light of those areas which are in flux.