

**Coastal States Energy Company**175 East 400 S. • Suite 800 • Box 3 • Salt Lake City, UT 84111  
a subsidiary of The Coastal Corporation (801) 596-7111VERNAL J. MORTENSEN  
Senior Vice President

February 26, 1987

**RECEIVED**  
FEB 27 1987Dr. Dianne Nielson  
Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203DIVISION OF  
OIL, GAS & MINING

Dear Dr. Nielson:

Submitted herewith are fourteen (14) copies of the application to renew the Skyline Mining Permit. These documents respond to the Initial Completeness Review by your staff as outlined in correspondence dated November 18, 1986 and constitute a resubmittal of our August 29, 1986 application for permit renewal. Volumes 1 through 3 of the August 1986 submittal should be updated by completely replacing the text portion and by modifying the maps sections of all three documents. Instructions for the map sections are included with the replacement documents. Volume 4 is a new document containing data which is subject to annual update. Appendix Volumes A-1 through A-4 contain consultant's reports, engineering calculations and other historical information which is more permanent in nature.

Utah Fuel Company has repackaged this submittal to provide a stand alone document as you requested. To ensure that the deficiencies listed in your Initial Completeness Review are adequately addressed, we have elected to essentially rewrite the text portion of the previous submittal and to supplement these documents with consultant's reports and additional maps, drawings and expanded baseline data.

Utah Fuel has not responded to two of the Division's comments included in November 18th completeness review in the manner requested. However, we have responded in a manner which is consistent with existing regulations and previous discussions with your staff. A discussion of these two items is attached to this letter to help communicate our position.

We have also not responded to the Forest Service concerns on an item by item basis but rather have attempted to address these issues in the document expansion. Time has not permitted a detailed response to each of these items individually. We will continue to work with the Forest Service to properly address

Dr. Dianne Nielson

Page 2

February 26, 1987

their comments, but in the meantime would also request the assistance of your staff in reviewing these or other agency requests to determine if they are appropriate for inclusion in the Mine Plan.

We again express our willingness to work closely with members of your staff during the review process to answer questions or to provide additional information as necessary.

Sincerely,



Vernal J. Mortensen  
Senior Vice President

ak

attachment

SPECIFIC ITEM RESPONSES NOT ADDRESSED IN THE RESUBMITTAL

CONCERN:

UMC 817.43 Hydrology Balance: Diversions and Conveyance of Overland Flow, Shallow Ground Water Flow and Ephemeral Stream - DC

--- "Designs for each diversion must be submitted. Specifically, a peak flow for the design event for each diversion must be submitted. All input assumptions (ie, CN, precipitation watershed area etc.) and all calculations must be included. From the design discharge for each diversion the operator must calculate and present the design velocity and channel capacity. All diversion that will experience erodible velocities at the design discharge must be lined and protected to prevent erosion. All channel lining designs must be submitted for review. These designs must include all input assumptions (i.e., Mannings's n, area, slope etc.) and subsequent calculations for a stable channel lining.

The above comments apply to both undisturbed diversions around the mine site and disturbed diversions that report to treatment facilities."

RESPONSE:

The provisions UMC 817.43 clearly apply only to overland flow from undisturbed areas and not to the disturbed area storm and snow melt drainage system. Consequently, design details have been included for the undisburbed area drainage systems, but not for the internal skyline drainage system. Utah Fuel Company has, however, included design calculations for the swales which collect the disturbed area runoff. Ditches leading to these swales will continue to be maintained in a manner which optimizes removal of water and minimizes erosion.

CONCERN:

UMC 817.46 Hydrologic Balance: Sedimentation Ponds - RPS

Page 3-18 discusses the average inflow to the pond from mine water discharge. The applicant should submit data demonstrating the volume of water pumped from the mine. The Division considers the average mine water inflow discussed under UMC 817.46 (c) to be based upon the 24 hour or daily average. This decision is based upon the intent of the design criteria for sedimentation ponds. The pond design is based upon a 24 hour detention time. Clearly, when a 30 day average is used to design the pond, extreme values in that period could result in significantly deficient pond volume during any given 24 hour period. The worst case scenario could be a large volume of mine water pumped to the pond in a short period with little or no mine water pumped during the remainder of the 30 day period. The average inflow would still be within the 30 day average limit, but the pond would not have sufficient theoretical volume to treat a 10 year - 24 hour precipitation event.

RESPONSE:

The requirements of UMC 817.46 have been previously discussed as a result of the issuance of NOV N84-2-24-3.2 of 3. This NOV resulted in an assessment conference before Constance Landberg on 8/19/85. The findings of that conference were that the NPDES discharge permit requirements governed. We believe the Division definition for "daily average" is in conflict with previously established EPA and OSM policy and the requirements of UMC regulations. Further, the Division comments represent an incomplete understanding of the rationale for sediment pond design and also of the practical ramifications of coal mine operation.

The 24-hour theoretical detention time is a somewhat arbitrary, but conservative, number and is based on data from EPA commissioned studies that suggest a leveling off of sediment removal efficiency after approximately 24 hours of settling time. These studies show that a comparison of actual pond detention time versus theoretical detention time indicates the actual detention time to be 30 to 70 percent of the theoretical detention time. OSM then assumes that ponds are 50 percent efficient. Consequently, to achieve the recommended minimum actual detention time of 10 hours, a theoretical detention time of 20 hours would be required. Data have shown a 90 percent removal efficiency at 20 hours. Stoke's Law on Settling Theory confirms these findings. OSM has further stated that, "Twelve actual hours detention time should be ample to remove the 20 micron particles and most of the 10 micron particles." (The above conclusions are taken from OSM findings as published in the Federal Register, Vol. 44, No. 50; Tuesday, March 13, 1979, beginning on page 15162.)

The official definition of daily average may be found in the Permittees NPDES discharge permit as follows: "Daily average means the arithmetic average of all the daily determinations made during a calendar month." The validity of this definition is further established by EPA in 40 CFC Part 434 - Coal Mining Point Source Category; Effluent Limitations Guidelines and New Source Performance Standards; Final Rule. This document states that effluent limitations are based on an "Average of daily values for 30 consecutive days" and further identifies these as BAT (Best Available Technology) Effluent Limitations.

It is the understanding of Utah Fuel Company that since the ultimate goal of the sedimentation ponds is protection of water quality, the rules established by EPA, the authority responsible for water quality, take precedent over definitions established by the Division.