

0034

File Copy
ACT/007/007



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
POST OFFICE BLDG. RM. 270
1823 STOUT STREET
DENVER, COLORADO 80202

OFFICE OF THE REGIONAL DIRECTOR

127 JUL 1979



Mr. Ron Daniels
Staff Assistant
Division of Oil, Gas and
Mining
Dept. of Natural Resources
1588 West North Temple
Salt Lake City, Utah 84116

Reference: Kaiser Steel Corporation, Sunnyside Mine, Proposed Water Monitoring Plan

Dear Mr. Daniels:

Upon review of the water monitoring plan proposed by Kaiser Steel Corporation, we must withhold our approval of the plan until further ground water information is obtained and modifications of sediment ponds are made. This plan is for the Kaiser, Sunnyside Mine as proposed in correspondence through Mr. Suchoski of your department on June 27, 1979.

It has been determined that the ground water monitoring plan is deficient. At the present time, there are no ground water observation wells at the Sunnyside Mine. OSM feels that these wells may be necessary in order to insure protection of the hydrologic balance adjacent to the mine area. In order to protect the hydrologic system of a mining area, it is necessary to adequately define the system.

As mentioned during conversations with Mr. Suchoski on July 13 and July 20, 1979, a review of available well core logs will be made when they become available to OSM. This review may aid in determination of whether a regional ground water monitoring system is needed.

Several questions as to the design of the two sedimentation ponds, as well as deficiencies in the design of the ponds, should be addressed by Kaiser.

The sediment pond for the main complex area has an outlet but no emergency spillway. Kaiser must submit a revised design for this sediment pond which includes a plan for the emergency spillway. Since the design for this pond is

over 20 acre-feet in size, the combination of the emergency spillway and the outlet pipe must be able to safely discharge the runoff from a 100-year, 24-hour precipitation event.

The submitted design for this pond has slopes of 1v:1.5h for the inside slopes of the embankment. This steepness tends to make the slopes unstable. The sediment pond should have slopes no steeper than 1v:2h.

The computation sheets for determination of the runoff storage volume show that the Rational Method derives 8.8 cfs and 9.0 cfs for the upper and lower portions of the main complex area, respectively. The retention volume used is based on 8.3 cfs and 8.2 cfs for these same areas. Kaiser should correct this apparent discrepancy.

There is no plan submitted for the design of the sediment pond for the manshaft area. Kaiser must provide plans to show the design of this sediment pond. Include an appropriate combination of an emergency spillway and outlet pipe to safely discharge the runoff from a 25-year, 24-hour precipitation event. Also include in this design plans for the diversion to carry the runoff from the disturbed area to the sediment pond.

Calculation of the sediment volume for the manshaft area uses the 'C' or cropping factor of the universal soil loss equation as 0.45 for 0% ground cover. At 0% ground cover, the cropping factor should be 1.0 instead of 0.45. This changes the predicted sediment volume to 0.14 acre-feet per year. Using a three-year sediment storage minimum, the minimum volume of the sediment pond should be 2.75 acre-feet. Kaiser should design for this size.

In regard to both sediment ponds, it is advised that Kaiser develop a method, such as a staff in the sediment pond, to indicate when the ponds will require cleaning.

Copies of this letter are enclosed for transmittal to the applicant by your Office.

Sincerely,



DONALD A. CRANE

cc: Howard, BLM (1)
Feldmiller, USGS (2)
Daniels, UT-NS (2)
BLM District, Moab (1)
Moffit, USGS (2)