

**KAISER
COAL**

KAISER COAL CORPORATION
Sunnyside Coal Mines
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DIVISION OF
OIL, GAS & MINING

January 26, 1987

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Mr. Lowell P. Braxton, Administrator,
Mineral Resource Development & Reclamation Program
Utah Division of Oil, Gas & Mining
355 W. North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 81480-1203

Re: Coarse Refuse Toe Seep
Sunnyside Mines
ACT/007/007

Dear Mr. Braxton:

Attached you will find three copies of revised page 41 of the Sunnyside MRP. The modification being made to the plan is to provide for monthly monitoring of the Coarse Refuse Toe Seep rather than use of a flocculant treatment as now required by the MRP.

Water analyses over the last two years, including those by the Division, have shown the total iron content of the seep to be within the regulatory limits. This is demonstrated by the attached table listing the available analyses of the seep, both at the source and at the permit boundary. Should the iron content exceed allowable levels, treatment will be resumed until the untreated water is within acceptable quality limits.

This modification has been recommended by Mr. Dave Lof of your office. If you have any questions about this, please contact me.

Sincerely,

Carl W. Winters

Carl W. Winters
Senior Mining Engineer

cc: C. W. McGlothlin, Jr.
B. J. Bourquin

KAISER COAL CORPORATION
SUNNYSIDE MINES
ACT/007/007

IRON ANALYSES - COARSE REFUSE TOE SEEP

<u>AT SOURCE</u>		<u>AT PERMIT BOUNDARY</u>	
<u>Date</u>	<u>Iron, Total</u>	<u>Date</u>	<u>Iron, Total</u>
02-02-85	11.4 (mg/l)	02-02-85	8.40 (mg/l)
02-25-85	8.00	02-25-85	3.14
03-29-85	6.90	03-29-85	1.38
04-29-85	4.90	04-29-85	1.32
		05-29-85	1.93
		08-22-85	4.29
		11-30-85	7.32
		02-28-86	8.00
		04-16-86	0.40
		05-12-86	0.16
		08-28-86	5.60
		10-01-86	3.65*
		11-26-86	3.18
12-31-86	4.90	12-31-86	0.26

* Sampled by Henry Austin, OSM

January 26, 1987

CHAPTER III

A seep occurs at the toe of the Coarse Refuse Pile. This natural seep has occasionally been found to have a total iron content higher than the UMC 817.42 standard of 7.0 milligrams per liter. The operator will sample this seep monthly for total iron content, and will, if the standard is exceeded at the permit boundary, promptly utilize a polymer flocculent and/or other techniques to remove the iron from suspension. This treatment will be continued until the total iron content of the seep is within the standard.

The coarse refuse pile will be inspected on a quarterly basis by a qualified, registered engineer or other qualified person for slopes, seepage, and other visible factors which could indicate potential failure. The results of the inspections will be recorded and maintained at the mine site. If any inspection discloses that a potential hazard exists, the Division will be informed of the findings and of the emergency procedures formulated for public protection and remedial action.

Maintenance of the embankments will consist of filling and grading any erosion or other failure features discovered by the above inspections. Ditches on the terraces will be cleaned and graded as need warrants. Rip rap in the drainage system will be repaired as needed.

Subsidence is not expected to affect the refuse pile as the structure does not overlie the coal seam and is several miles west of the nearest outcrop. Mudflows, rock debris falls or other landslides are not expected to be a problem. Possibility of failure near the sides and downhill of the refuse piles is limited to a thin layer of coluvial material on bedrock. Failure of this material would not threaten the refuse pile.

(c) Return of coal processing waste to abandoned underground workings: No coal processing waste disposal facility is proposed to return waste to abandoned underground workings. In the late 1950's and early 1960's a backfill plant was constructed to crush a portion of the preparation plant reject and pump the reject underground to fill air courses that were no longer needed and to fill voids above yieldable arch installations. Approximately 700,000 tons of material were pumped underground. The backfill equipment (crushers, screens, rod mill, pumps, etc.) have been removed and the building is now used as a warehouse for preparation plant equipment and materials. The backfilling was done to stabilize main access and ventilation entries and to reduce the occurrence of bumps in such areas.