

February 18, 1987

TO: Coal File

FROM: James R. Fricke, Reclamation Hydrologist *JRF*

RE: Request to Modify Monitoring Plan for the Coarse Refuse Toe Seep, Kaiser Coal Corporation, Sunnyside Mines, ACT/007/007, Folder #2, Carbon County, Utah

The operator has requested to cease the flocculant treatment of the Coarse Refuse Toe Seep. Currently, the operator is treating the seep with a flocculant to remove total iron from the water. The use of this procedure drops the iron out of suspension at the point of treatment. Iron accumulates at the point of treatment and may be a source for future iron problems.

The operator has submitted an iron analysis (see attachment) for the seep. Review of the iron values shows that on three occasions (2/2/85, 11/30/85 and 2/28/86) the mg/L limit of 7.0 was exceeded at the permit boundary. The operator has requested to cease the flocculant treatment at the seep and monitor the effluent at the permit boundary. Additionally, the operator commits to resuming the flocculant treatment if the iron limit of 7.0 (mg/L) is exceeded at the permit boundary.

The data submitted suggests that exceedence for the iron limit occurs during low flow conditions. The floc-treated water drops iron out of suspension, creating an additional source of iron. This iron may concentrate during low flow resulting in the exceeded iron limit.

It is recommended that the operator cease the flocculant treatment at the seep and maintain monthly monitoring at the permit boundary and concurrently at the seep upstream of the flocculent treatment area.

If future monitoring data demonstrates that the seep effluent is above the total iron limitation, the operator should commit to designing a flocculant treatment system that will allow the flocculated iron to be physically removed from the seep drainage area. A plan for adequate disposal of the iron waste (i.e., East Slurry Cell) should also be considered.

djh
Attachment
cc: D. Lof
J. Whitehead
0798R/18

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