0025

Sunnyside Coal Company

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Operations • Highway 123 • P.O. Box 99 • Sunnyside, Utah 84539

ACT/007/006

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DIVISION OF
OIL, GAS & MINING

September 27, 1993

Mr. Mike Herkimer
Environmental Health Scientist
Department of Environmental Quality
Division of Water Quality
P. O. Box 144870
Salt Lake City, Utah 84114-4870

Dear Mike:

Re: TDS Exceedances During May, June, and July 1993 at UPDES #001

As I am sure you are aware, Sunnyside Coal Company exceeded the UPDES Maximum Allowable TDS limit of 1,650 mg/l during five samples that were taken in May, June, and July of 1993. The TDS range of these samples varied from 1,675 mg/l to 1,734 mg/l. The purpose of this correspondence is to attempt to explain what Sunnyside Coal believes to be the reason for these TDS exceedances.

In March of 1991 and until June of 1992, Sunnyside Coal was purchasing and utilizing (on a mine-wide basis) gypsum rock dust ($CaSO_4 2H_20$) in both bulk and bag quantities. Rock dust, which is generally calcium carbonate ($CaCO_3$), is used in the coal mining industry because of its noncombustible qualities. It is used/mixed with coal fines/coal dust to render them nonhazardous. Large volumes of rock dust are used on a daily basis.

At about that time in 1992, you had informed us of the possibility of TDS problems with the use of gypsum rock dust. TDS had not appeared to be related to our use of the gypsum rock dust until recently. Sunnyside Coal Company Engineering has made the following correlations with the high TDS occurrences and the development/extraction maps of the 22nd Left extraction face and the 23rd Left development/extraction. Although Sunnyside Coal Engineering has no way to actually determine how much of this gypsum dust was used in these two areas, 1,420 tons of the gypsum rock dust was purchased during this period.

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1. The 22nd Left longwall extraction face was mined from Crosscut 56 to Crosscut 16 (4,800 feet) using gypsum rock dust in both the headgate and tailgate entries.

2. The 23rd Left development entries were developed 6,200 feet using gypsum rock dust.

3. From May through June, the 23rd Left longwall panel was extracted 1,020 feet; water, which was being liberated in the gobbed-out panels (22nd Left in particular) above 23rd Left, was passing through the gypsum area creating the TDS problem at UPDES #001.

4. On July 28, 1993, a new four-inch line (carrying culinary quality water) was tied into the Twin Shafts Mine Water Pond (UPDES #001). This water has a TDS that averages 600-650 mg/l and a flow rate of about 75 GPM. The average inflow/month into 001 has been about 400 GPM. This extra 75 GPM is diluting the TDS to bring Sunnyside Coal Company into compliance. The reason the new four-inch line was run to 001 was due to a decreased main pump efficiency in the Manshaft Dips Area of the #1 Mine. The dilution bonus helped SCC come into UPDES compliance.

Sunnyside Coal Company believes high TDS problems will be encountered for the entire length of the 23rd Left panel; however, dilution of the Manshaft Dips sump water by the Manshaft shaft drainage will more than likely keep Sunnyside Coal within TDS limits.

Should you have any questions, please call.

Sincerely,

Peter H. Hess
Environmental Coordinator

PHH:th

Enclosures (Map)

cc: Gary E. Gray
Pamela Grubaugh-Littig (DOGM)