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State of Utah
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June 5, 1998

TO: Lowell Braxton

FROM: Paul Baker, Reclamation Biologist

Re: N98-41-2-1 ACT/007/012 #2

BACKGROUND INFORMATION:

Violation N98-41-2-1 was written March 11, 1998, for failing to locate and construct diversions according to designs in the operation and reclamation plan, failing to construct diversions to be stable, and for failing to conduct operations only as described in the approved operation and reclamation plan. At the time of the inspection on which the violation was based, most facility construction had been completed and operations had begun at the new preparation plant.

The permittee for the Wellington Preparation Plant, Nevada Electric Investment Company, received approval for amendment 97G on October 9, 1997. This amendment allowed construction of the modular preparation plant, including drainage control features consisting of several ditches, berms, and culverts. The operation plan, amendment 97H, was approved January 2, 1998.

Drainage from all but one small part of the preparation plant area would go to one of the large slurry ponds, so there was little danger of offsite environmental damage. Nevertheless, the regulations require an operator to design, construct and maintain drainage control structures to be stable and according to the plan.

For the following discussion, please refer to the attached copy of a portion of map T1-9597 from the operation and reclamation plan. I have attempted to highlight ditches and culverts on this copy.

BASIS OF VIOLATION:

There were several differences between the drainage control designs for the new wash plant and the way the structures were constructed. In two of the cases discussed below, water from the operations rather than precipitation runoff was being routed through the drainage

control system, and these structures were not designed to carry this additional water.

During the inspection, water was being drained from the slurry feed tank into an undesigned ditch leading to the slurry pond. I estimated about 1-2 cfs was flowing through this ditch, and it had eroded about two feet deep.

The designs show culvert CVL-C3 being 24 inches in diameter, but the culvert that was installed had a diameter of 12 inches. It appeared water from the operations had been flowing through the lowermost part of ditch CVL-D5 to this culvert, and there was black foam at least one foot deep on the upstream side of the culvert. It appeared the culvert had not been able to handle the flow and that water and foam had backed up. The operation and reclamation plan does not indicate any of the diversions would be used for water from the operations; they were to be used strictly for precipitation runoff control. Therefore, these diversions were not designed with all aspects of the operation in mind.

Ditches CVL-D1, CVL-D4, CVL-D3, and the part of CVL-D5 below the flotation cell pad were not built. In the place where CVL-D4 was supposed to be was a coal stockpile. In the relatively flat areas of CVL-D1 and CVL-D3, there was no real drainage control other than sheet flow.

There was no culvert installed where CVL-C2 was supposed to be. Instead, a 12-inch culvert (rather than 24) had been installed under the road paralleling where ditch CVL-D3 was supposed to be. Culvert CVL-C1 was not installed.

The drainage designs failed to take into account a culvert under the county road near the gate at the main entrance. This eventually led to water being diverted to the ditch along the slurry pipeline road to the west and this ditch failing. Straw bales were present in the area to treat the runoff.

SUMMARY:

Although there was no off-site environmental damage, the drainage control structures at the modular preparation plant were not installed and were not being used as designed. Problems leading to issuance of the violation include:

1. Water from the operations was being routed through drainage control structures not designed to carry this water. This lead to a backup of water and foam at one culvert and an undesigned ditch cutting at least two feet deep.

2. Several of the designed ditches were not built.

3. One culvert was not installed and one was not installed in the position shown in the plan. Both installed culverts were supposed to be 24 inches in diameter, but both were 12 inches.

4. The drainage designs did not take into account a culvert under the county road. This lead to drainage going down a ditch that was not designed to carry this additional water and to failure of the ditch.

The violation was appropriate because drainage control structures are required to be constructed and maintained to be stable and because operations must be conducted according to information in the operation and reclamation plan.

24"ø x 100.0'CMP
PIPE CULVERT
INLET EL 5394.50
OUTLET EL 5393.50
CVL-C2

CVL-D4

RECLAIMED COAL
FINES STOCKPILE
AREA

24"ø x 75.0'CMP
PIPE CULVERT
INLET EL 5386.00
OUTLET EL 5384.00
CVL-C3

WATERSHED
CVL-7D

WATERSHED
CVL-7G

WATERSHED
CVL-7F

CVL-D6

SAFETY BERM

OFFICE

CHANGE
HOUSE

STORES

CVL-D3

CVL-D2

SCREENING
AREA PAD

SLURRY FEED TANK
AND PUMP

SLURRY FEED PIPE
TO SCREENING AREA

WATERSHED
CVL-7C

WATERSHED
CVL-7B

PRODUCT LOADOUT

SAFETY BERM

CVL-D5

WATERSHED
CVL-7E

POWERLINE

DIESEL FUEL TANK

PRODUCT STOCKPILE

CVL-D1

FLOTATION
CELL PAD

MAKEUP WATER
HEAD TANK

BERM

N32°36'56"W
1003.48

GATE

Culvert CVL-C1
18"ø x 40.0' CMP
PIPE CULVERT

TAILINGS PIPELINE
FROM FLOTATION CELLS
TO TAILINGS POND
GRAVITY FLOW