

Document Information Form

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File Name: Internal

To: DOGM

From:

Person N/A

Company N/A

Date Sent: APRIL 4, 1984

Explanation:

INSPECTION MEMO TO COAL FILE.

cc:

File in: C/007, 004, Internal

Refer to:

- Confidential
- Shelf
- Expandable

Date _____ For additional information

April 4, 1984

Inspection Memo
to Coal File:

RE: Price River Coal Company
Price River Complex
ACT/007/004, Folder No. 7
Carbon County, Utah

The above mentioned operation was inspected by Dave Darby and Sandy Pruitt in response to Ten Day Notice #84-2-81-3. Rob Wiley accompanied the DOGM staff members on an inspection of the Castlegate Preparation Plant yard, Hardscrabble Canyon and Sowbelly Canyon. The findings of this inspection are discussed below.

TDN #1--Failure to provide an appropriate combination of principle and emergency spillways to safely discharge runoff (and other flows).

This violation was directed at pond numbers 003, 004 and 005 in Sowbelly Gulch and pond numbers 006, 007 and 008 in Hardscrabble Canyon.

The ponds in Sowbelly Gulch previously received the same violation from field inspector David Lof on March 16, 1982. This violation was vacated March 23, 1982. In a letter dated April 20, 1982, Sally Kefer, hydrologist for the Division, found that sizing calculations for the ponds established the ponds to be oversized and could contain the expected runoff generated during the 10-year, 24-hour or 25-year, 24-hour precipitation event without discharging. She, therefore, granted a variance to the operator for allowing no emergency spillways on ponds 003, 004 and 005. When evaluating the ponds, it should be realized that they are interconnected with an 18-inch culvert and any inflow that possibly could exceed the capacity of the upper two ponds (003 and 004) will be transmitted to the next lower pond (004 and 005). According to the sizing calculations, each pond is oversized to contained more than the 25-year, 24-hour precipitation event plus the sediment storage. Pond 003 has 10 percent more than needed to contain the 25-year, 24-hour event, pond 004 has 111 percent greater capacity and pond 005 has 162 percent greater capacity. The 18-inch culverts essentially act as spillways to protect the integrity of the upper two dams.

It is the opinion of this hydrologist (Dave Darby) that all ponds should have an emergency discharge structure to protect the integrity of the embankment in the event the design storms should come back to back or in series. This could be devastating to the total containment pond by way of total embankment failure which would then result in the loss of contained material. I, therefore, advocate that an emergency spillway be placed in pond 005.

The ponds in Hardscrabble Canyon have been examined and no further determinations made.

File in:

- Confidential
 Shelf
 Expandable

Refer to Record No. 0014 Date 4-4-84

In C/ 007, 004, Internal

For additional information _____

April 4, 1984

Inspection Memo
to Coal File:

RE: Price River Coal Company
Price River Complex
ACT/007/004, Folder No. 7
Carbon County, Utah

The above mentioned operation was inspected by Dave Darby and Sandy Pruitt in response to Ten Day Notice #84-2-81-3. Rob Wiley accompanied the DOGM staff members on an inspection of the Castlegate Preparation Plant yard, Hardscrabble Canyon and Sowbelly Canyon. The findings of this inspection are discussed below.

TDN #1--Failure to provide an appropriate combination of principle and emergency spillways to safely discharge runoff (and other flows).

This violation was directed at pond numbers 003, 004 and 005 in Sowbelly Gulch and pond numbers 006, 007 and 008 in Hardscrabble Canyon.

The ponds in Sowbelly Gulch previously received the same violation from field inspector David Lof on March 16, 1982. This violation was vacated March 23, 1982. In a letter dated April 20, 1982, Sally Kefer, hydrologist for the Division, found that sizing calculations for the ponds established the ponds to be oversized and could contain the expected runoff generated during the 10-year, 24-hour or 25-year, 24-hour precipitation event without discharging. She, therefore, granted a variance to the operator for allowing no emergency spillways on ponds 003, 004 and 005. When evaluating the ponds, it should be realized that they are interconnected with an 18-inch culvert and any inflow that possibly could exceed the capacity of the upper two ponds (003 and 004) will be transmitted to the next lower pond (004 and 005). According to the sizing calculations, each pond is oversized to contained more than the 25-year, 24-hour precipitation event plus the sediment storage. Pond 003 has 10 percent more than needed to contain the 25-year, 24-hour event, pond 004 has 111 percent greater capacity and pond 005 has 162 percent greater capacity. The 18-inch culverts essentially act as spillways to protect the integrity of the upper two dams.

It is the opinion of this hydrologist (Dave Darby) that all ponds should have an emergency discharge structure to protect the integrity of the embankment in the event the design storms should come back to back or in series. This could be devastating to the total containment pond by way of total embankment failure which would then result in the loss of contained material. I, therefore, advocate that an emergency spillway be placed in pond 005.

The ponds in Hardscrabble Canyon have been examined and the following determinations made.

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Calculations for pond 006 show that the pond is oversized by more than 300 percent for the 25-year, 24-hour precipitation event. The operator has submitted draft plans to this Division for reclamation of the area which this pond presently controls. The plans are to be implemented this summer, if approved. Due to these facts, this Division will grant a variance so that no emergency spillways will need to be constructed on this pond.

The calculations for pond 007 show this pond to be undersized by 30 percent for the expected runoff generated during the 10-year, 24-hour precipitation event. This Division not only recommends that an emergency structure be emplaced, but that the pond be properly sized to control the expected runoff.

The calculations for pond 008 show that the pond is oversized to contain more than the expected precipitation generated during a 25-year, 24-hour event. However, to ensure protection to the embankment in the event overtopping should occur, the Division will require that an emergency spillway be constructed to transmit at least a 25-year, 24-hour event.

This Division will also require that all ponds in Sowbelly Gulch and Hardscrabble be lined to prevent infiltration from the ponds.

TDN #2--Failure to construct and maintain a permanent ephemeral diversion.

The write-up delineating the nature of this violation is improperly sited. This area is a natural drainage and should be referenced under 30 CFR 817.44 instead of 30 CFR 817.43. However, some facts should be pointed out about this area which may negate the need to site the area for a violation.

Fill which forms a storage pond extends into the ephemeral stream. This pad was constructed long before Price River Coal Company took possession of the mine.

During the several years that the fill has been in place, runoff has flowed down the drainage, formed a small pond along the edge of the fill, then seeps in and is later discharged about 20 yards away on the adjacent edge of the fill. In the several years this fill has been in place, no runoff has overtopped or washed away the fill, including last year's excessive runoff.

Last summer, Barton Kale, inspector for the Division, expressed concerns about this area. On June 28, 1983, Hydrologists Rick Summers and myself (David Darby) visited the site. It was determined then that no adverse effect would take place (Memo to Coal File, July 1, 1983). Upon realizing this drainage had to accommodate the runoff diverted from Schoolhouse Canyon as well as the runoff from its own channel, the area was again visited by me on March 30, 1984.

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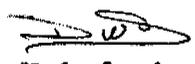
My findings are that high volume runoff (100 year event) from both drainages would flow down the natural channel and pool in the low area adjacent to the fill. The runoff would flow around the fill in a channel sufficient to accommodate the flow without overtopping the fill. After the high flows, the ponded water would seep under the edge of the fill as it has for several years. The water seeping under the edge of the pad will not cause any erosion or excessive loading since this area has been stabilized over the years.

It is my opinion that erosion of the fill will not take place during low and medium (10-year, 25-hour event) since velocities are reduced by the ponding and from large boulders in the stream channel that are there more from rock falls from the precipitous slopes more than those that have been carried down by runoff.

To ensure protection against high volume runoff, this Division will require that riprap be placed along the edge of the fill.

TDN #3--Inadequate sediment control measures.

This Division will require that a sedimentation pond(s) be constructed to control sediment in accordance with UMC 817.42, 817.45, 817.46, 817.49, 817.52 and 817.56 as well as provide for the conveyance of overland flow as stated under UMC 817.43, 817.49 and 817.56.

Dave Darby 
Reclamation Hydrologist

DD/btb

cc: Jodie Merriman, OSM
Rob Wiley, PRCC
J. Helfrich, DOGM
S. Pruitt, DOGM

Statistics:

See Black Jack #1 Mine memo dated April 4, 1984
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