Betty

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STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

July 5, 1984

Mr. Robert L. Wiley
Environmental Engineer
Price River Coal Company
P. O. Box 629
Helper, Utah 84526

Dear Mr. Wiley:

RE: Reconstruction of Pond #14, Crandall Canyon, Price River Coal Company, ACT/007/004, Folder No. 2 and 3, Carbon County, Utah

The Division's technical staff has reviewed the plans for reconstruction of sediment pond #14, submitted to Mr. James Smith and received by the Division March 20, 1984, and the follow up calculations and data inputs, provided to Mr. D. Wayne Hedberg and received by the Division June 27, 1984.

Based on the August 6, 1982 approval issued by the Division of Oil, Gas and Mining (Division), Price River Coal Company (PRCC) has an approved pond for Crandall Canyon, designed to contain development water from the shafts plus sediment storage and runoff from the 10 year - 24 hour event for approximately 7 acres of disturbed area. On June 23, 1983, the Division approved the use of sediment pond #14 for temporary treatment of an additional 7 acres of undisturbed area until the end of summer, 1983 (as per your April 21, 1983 request for a variance).

Contrary to your assumption, the temporary approval review is not applicable to this review. The temporary review and approval dealt with 7 acres of disturbed and 7 acres of undisturbed area (see Attachment I), for which sediment pond #14 has adequate storage.

As presently depicted on Exhibit 3.7-5, the drainage area which PRCC is now proposing consists of approximately 14 acres of disturbed area. Also, as indicated in your July 27, 1983 letter, the finished Crandall Canyon pad will be paved, thereby changing the rainfall-runoff relationship. Based on this information, the present design is unacceptable (see attachment I).

The following please call me or Tom Suchoski of the technical review staff.

A. PRCC must provide plans and stage-capacity curve information demonstrating an enlarged pond capacity to provide adequate storage for the 10-year, 24-hour event runoff and sediment .

B. PRCC must obtain approval of the pond modification from the Bureau of Water Pollution Control, Division of Environmental Health, and the State Engineer's Office (Dam Safety), Division of Water Rights.

Should you have any questions, please call me or Tom Suchoski of the technical review staff.

Sincerely,

for

D. Wayne Hedberg
Permit Supervisor/
Reclamation Hydrologist

DWH:jvb
94590-11-12

cc: Allen Klein, OSM
Robert Hagen, OSM
Jim Smith, DOGM
Joe Helfrich, DOGM
Tom Suchoski, DOGM
Sandy Pruitt, DOGM

Attachment

ATTACHMENT I

June 23, 1983 Approval Based on:

CAPACITY - RUNOFF

DISTURBED

CN = 90 A=7 acre
P = 1.9 inches

$$Q = \frac{(P-0.2S)^2}{P + 0.8S} = \frac{(1.9 - 0.2(1.11))^2}{1.9 + 0.8(1.11)} = 1.01 \text{ inch}$$

$$= \frac{1.01 \times 7}{12} = 0.59 \text{ Ac. Ft.}$$

UNDISTURBED

CN = 90 A=7 acre
P = 1.9 inches

$$Q = \frac{(1.9 - 0.2\ (3.33))^2}{1.9 + 0.8\ (3.33)} = 0.33 \text{ inch}$$

$$= \frac{0.33 \text{ inch} \times 7}{12} = 0.19 \text{ acre feet}$$

Total = 0.78 acre feet

RUNOFF VOLULME = 0.78 x 43560 = 33,970 ft^3

SEDIMENT

DISTURBED

A = 7 acres
SR = 0.035 Acre Feet/Acre

A x SR = 7 x 0.035 = 0.25 acre feet
Sed. Volume = 0.25 x 43560 = 10,670 $Feet^3$

TOTAL STORAGE = 44,650 $Feet^3$ less than 50,000 - acceptable

BASED ON:

- 27 July 1983 Letter
- Exhibit 3.7-5
- 16 March 1983 Letter

CAPACITY: RUNOFF

DISTURBED

CN = 90 (See Attached)
P = 1.9 inch
A = 14 acre

$$Q = \frac{(1.9 - 0.2\ (1.11))^2}{1.9 + 0.8\ (1.11)} = \frac{1.01 \text{ inch} \times 14}{12} = 1.18 \text{ ac. ft}$$

RUNOFF VOLUME = 1.18 x 43560 = 51,328 $Feet^3$

SEDIMENT

DISTURBED

A = 7 acres
SR = 0.035 Acre Feet/Acre

SR = A x SR = 14 X 0.035 = 0.49 Acre Feet x 43560 Ft^3/AC. FT.

= 21,344 $Feet^3$

TOTAL STO. = 72,672 Greater than 60,000
Not acceptable

94590-13