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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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May 14, 2002

TO: Internal File

THRU: Pam Grubaugh-Littig *pgl*

FROM: Gregg Galecki, Reclamation Hydrologist *GG*

RE: Abatement to Notice of Violation (NOV) N02-49-1-1, West Ridge Resources Inc. West Ridge Mine, C/007/041-AM02A-1

SUMMARY:

On March 29, 2002, the Division received an abatement response to NOV N02-49-1-1, which was issued on February 20, 2002, with an initial abatement date of March 21, 2002. An Abatement Extension was received by fax from West Ridge Resources on March 19, 2002, and the NOV was modified and extended to April 19, 2002. The abatement response received March 29, 2002, was determined to be inadequate to abate the violation and was returned to West Ridge Resource, Inc on April 8, 2002. A second abatement response was receive by the Division on May 3, 2002. Following a field visit conducted May 8, 2002, the May 3, 2002, submittal was completely revised and resubmitted on May 10, 2002. The following is a technical review of the information submitted May 10, 2002, to abate the violation. The violation concerned inconsistencies between the approved Mine Reclamation Plan (MRP), a pending application concerning a Division Order, and ground-truth observations made by the Division inspector of the disturbed-area ditches. All the information provided is hydrologic related. The information provided is considered adequate to abate the Violation.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

General

The source of the NOV is the submittal of both text and certified maps indicating a commitment to armor disturbed area ditches with flow velocities exceeding 5 feet/second (fps) in designed disturbed area ditches. The ditches are designed for a 10-year / 24-hour storm event, but only one of the ditches outlined in the MRP (incorporated in April 1999) are currently armored. Changes submitted to the Division as part of the NOV abatement are incomplete when compared to the currently approved MRP. However, the information submitted is complete when compared to the as-built information submitted in August 2000. Changes to Table 13 are supported with as-built survey information.

During the Abatement process, differing interpretations of the designed storm event for disturbed area ditches existed between the Division and Operator. Initially, the Operator thought the disturbed area ditches were required to be designed to contain a 10-year / 6-hour storm event. Although not specifically stated in the regulations, the Division requires disturbed area ditches to be designed contain the 10-year / 24-hour storm event (position supported by OSM). This is consistent with design requirements for other treatment facilities, culverts, and ASCAs (Alternate Sediment Control Areas) reporting to the Sedimentation Pond. The Division requested the 10-year / 24-hour storm event to be compatible with the regulations of the design event of the Sedimentation Pond to which the disturbed-area ditches report. State regulation R645-301-742.221.33 clearly states the Sedimentation Pond be designed to contain a 10-year / 24-hour storm event.

During a Fact-of-Violation / Assessment Conference conducted on May 1, 2002, West Ridge Resources, Inc personnel were reacquainted with the Divisions' position on the design requirements. At the May 1, 2002, meeting, West Ridge personnel committed to becoming compliant with the regulations by the May 20, 2002, NOV abatement deadline. A meeting of West Ridge and Division personnel was scheduled for May 8, 2002, to conduct a field investigation and to agree on the best method to become compliant with the regulations.

Diversions

Sections 2.1 and 2.10 and Figures 3, 4, and 4A indicate all ditches are designed for a 10-year / 24-hour storm event. One design parameter of the 10-year / 24-hour ditch design (in the currently approved MRP) requires ditch sections having flow velocities greater than 5 fps need to be armored. During the May 8, 2002, field inspection, both Division and West Ridge Resources personnel concurred that the 5 fps benchmark for armoring of the channels could be raised to 6 fps for the ditches in question. Criteria includes the material of the ditches which combine bedrock, shale, hardpan, and coarse gravel, cobbles, and predominantly non-colloidal sediments. Also, when encountering the 10-year / 24-hour storm event the water will be transporting a high percentage of colloidal silts.

With the current submittal, changes have been made in Appendix 7-4 of the MRP that bring the Operator into compliance with the regulations. Text changes have been made to the Table of Contents, pages 3, 5, 10, 10a; Tables 12 and 13; and Figures 3, 4, and 4A. Effectively, ditch DD-1 will be visually monitored for erosion; ditch DD-6 will have supplemental armoring added to one side as required by design; and ditch DD-4 will have energy dissipators (wire/rock gabions) installed to reduce the velocity below 6 fps. These modifications fulfill the design requirements for a 10-year / 24-hour storm event.

Findings:

The information provided is adequate to fulfill the requirements of the Hydrologic Information section of the regulations.

RECCOMENDATIONS:

The application can be approved in its current form. Deficiencies discussed in previous technical memos have been adequately addressed.