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State of Utah

DEPARTMENT OF NATURAL RESOURCES

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Division of Oil, Gas and Mining

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Outgoing
C0150032
#3455
K

December 17, 2009

Dave Shaver, Manager
Genwal Resources, Inc.
P.O. Box 910
East Carbon, Utah 84520-0910

Subject: Mine Treatment Facility, Genwal Resources, Inc., Crandall Canyon Mine, C/015/0032,
Task ID #3455, Outgoing File

Dear Mr. Shaver:

The Division has reviewed your application to construct a mine-water treatment facility at the Crandall Canyon Mine site.

The Division has determined that there are some deficiencies that must be addressed before a determination can be made that the requirements of the R645 Coal Mining Rules have been met, and an approval can be granted. Those deficiencies are listed as an attachment to this letter. The initials of the author follow each deficiency in order to facilitate direct communication between yourself and Division staff should questions arise.

The plans as submitted are denied. Please resubmit the entire application.

Sincerely,

Daron R. Haddock
Permit Supervisor

DRH/SKC/sqs
cc: Price Field Office
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Deficiency List
Task No. #3455
Mine Treatment Facility

The members of the review team include the following individuals:

Steve Christensen (SC)
Kevin Lundmark (KL)

R645-301-742.220: The Permittee must provide up to date survey information that demonstrates the sediment level of the pond. (SC)

R645-301-742.220: In addition, the Permittee must provide additional design and maintenance information for the proposed settling basin. The additional settling basin information should provide the following:

- The Permittee should revise the proposed clean out portion of the application. The Division finds that utilizing several staff gauges to determine when the 7,812' clean out level is reached is reasonable. However, due to the excessive staining that will be produced by the elevated iron levels in the mine water, it may be impossible to accurately read an elevation or tick mark on a standard staff gauge. As a result, the Permittee should install sediment markers (adjacent to the staff gauges) whose top elevation is 7,812'. With this method, it will be more apparent as to when the settling basin will require cleaning, as the sediment markers will no longer be visible at that point. (KL)
- The Permittee must commit to taking additional precautionary measures to minimize the amount of suspended iron particles that could potentially flow out of the pond during the vacuuming of the accumulated iron material. Such measures could include having sediment control devices on site prior to initiating clean up activities (excelsior logs etc.) in the event that suspended iron particles begin to discharge from the settling basin. (SC)
- The Permittee must revise the maintenance section of the application on page 5 of Appendix 7-65. When maintenance is required on the oxidizer unit or settling basin the bypassed mine water must be routed in a controlled manner to the disturbed drainage system. As such, the proposed temporary routing of the mine water down the main access road is unacceptable. (SC)
- The Permittee must demonstrate that all drainage components utilized in routing the mine water around the water treatment area can safely convey the design flow of 1,189 gallons per minute (gpm). The design flow of 1,189 gpm was derived from the October 14th, 2009 Blackhawk Engineering, Inc. memo that discussed the design criteria utilized in sizing the proposed mine water treatment area's spillway and discharge pipe. The Permittee must demonstrate that the conveyance system from the Maelstrom Unit to disturbed drainage ditch (DD-10), disturbed drainage ditch DD-10 as well as culvert C-4 can adequately convey the design flow of 1,189 gpm. (SC)

- The Permittee must provide a commitment to notify the Division 24 hours prior to initiating any clean up/maintenance activities on either the Maelstrom Oxidizer Unit or the settling basin. (SC)
- The Permittee must provide a commitment that prior to initiating any clean up/maintenance activity on the Maelstrom Unit or settling basin that would require the re-routing of the mine water to the primary sediment pond, the sediment levels must be below the approved clean out level of 7,769'. (KL)
- During periods when the Maelstrom Oxidizer Unit or sedimentation basin must be taken off-line and mine water is discharged to the sediment pond, the water level in the sediment pond must be monitored to ensure that adequate storage is available in the pond to contain a 10-yr/24-hr storm event. The Permittee must provide a plan for monitoring the water level in the sediment pond and determining when the routing of mine water discharge to the sediment pond must stop. (KL)
- Based upon the Sedimentation and Drainage Control Plan in Appendix 7-4 of the MRP, a minimum volume of 2.172 acre-feet is required in order to contain the design storm event and associated sediment. The Permittee must commit to regularly monitor the discharge rate during treatment system bypass. The monitoring is necessary in order to calculate the time available for maintenance operations based on the available pond volume and mine water discharge rate. (KL)

R645-301-751: the Permittee must commit to establishing a back-up/contingency plan for the Maelstrom Oxidizer Unit once it's been demonstrated that the mine-water discharge levels of total iron are within UPDES limits for 3 consecutive months.