0014

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

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

August 18, 1999

Gary Gray, Resident Agent
Genwal Resources, inc.
P. O. Box 1420
Huntington, Utah 84528

Re: Conditional Approval of 50 Acre Incidental Boundary Change Application, Genwal Resources, Inc., Crandall Canyon Mine, ACT/015/032-IBC99-1, Folder #3, Emery County, Utah.

Dear Mr. Gray:

The Division has completed our review of your application to permit 50 acres as an incidental boundary change at the Crandall Canyon mine. We have determined that you have met all of the Division's requirements and your application is hereby conditionally approved contingent upon consent from the U. S. Forest Service and the Bureau of Land Management. Please see the attached Technical Analysis.

The right-of-way from the BLM will need to be obtained before proceeding with any mining activity within the 50 acre area. A copy will need to be forwarded to us as soon as it is obtained. Upon our receipt, a permit revised to include the 50 acre IBC will be issued. Please submit 7 clean copies (redline/strikeout removed) of the entire submittal for insertion to the Mining and Reclamation Plan.

If you have any questions please call.

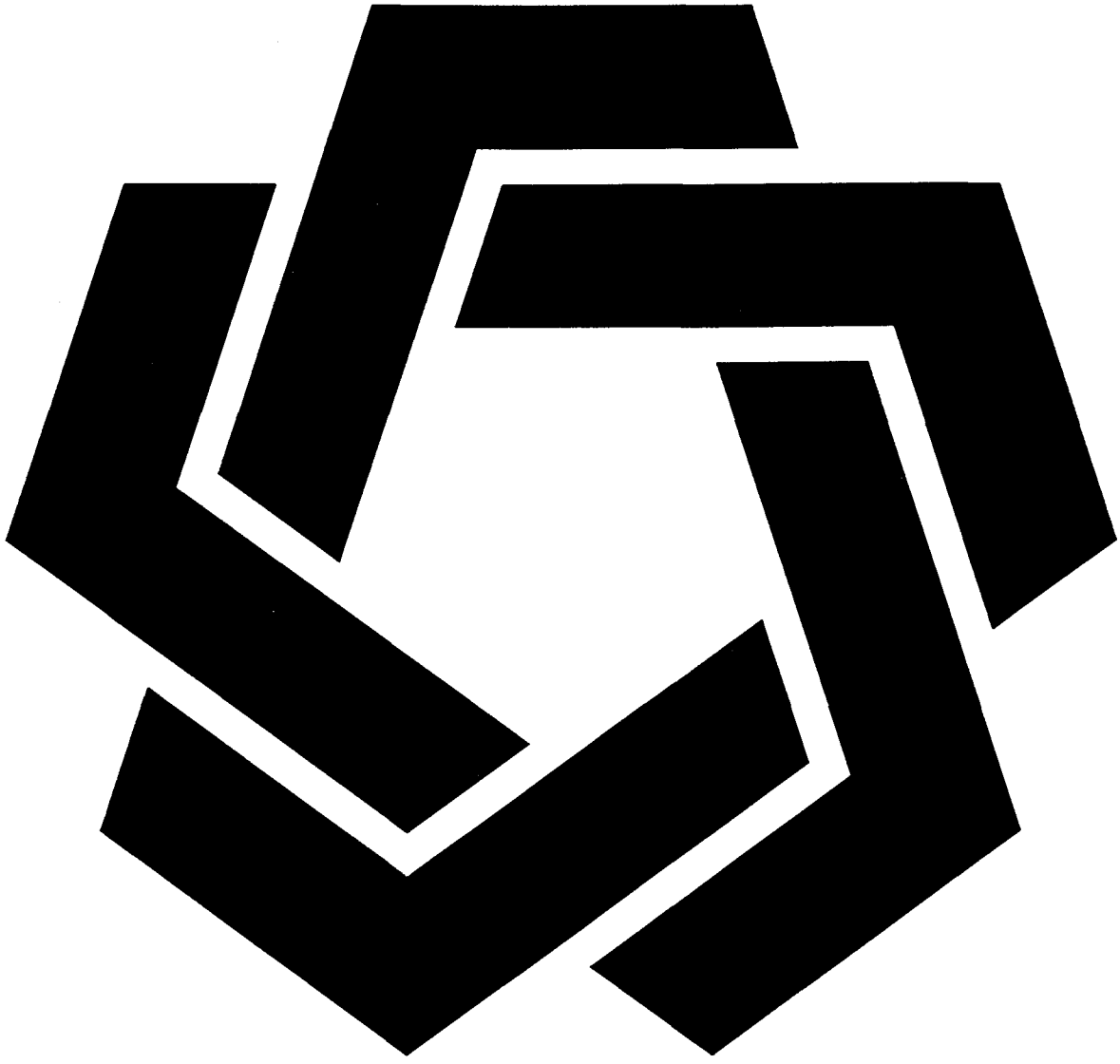
Sincerely,

Daron R. Haddock

Daron R. Haddock
Permit Supervisor

tm
enclosure
cc: Richard Manus, BLM
Janette Kaiser, Manti LaSal Forest Service
Price Field Office
O:\015032.CRA\FINAL\50ACAPP.LTR

State of Utah
Division of Oil, Gas and Mining
Utah Coal Regulatory Program



Technical Analysis and Findings
Crandall Canyon Mine
ACT/015/032
50 Acre Incidental Boundary Change
August 17, 1999

INTRODUCTION

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings which comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference which describes the minimum requirements that must be met in order to satisfy them. If it is determined that the deficiencies can be satisfied by stipulation the Division may issue a permit with conditions. In this Technical Analysis we have summarized the conditions at the beginning of the document to aid in responding to them.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

SUMMARY OF CONDITIONS

R645-301-114, The applicant needs to supply complete right of entry information

TECHNICAL ANALYSIS

ADMINISTRATIVE INFORMATION

OWNERSHIP AND CONTROL

Regulatory Reference: R645-301-112

Analysis:

The application shows one change to the officers and directors of Genwal Resources, Inc., and to its parent, Andalex Resources, Inc. One person was removed from the list of officers.

Appendix 1-12 contains a list of affiliated companies, and the applicant has revised this appendix. The information should be checked in the applicant violator system.

The only other changes proposed for this section of the plan are to add some wording referencing affiliated coal mining and reclamation operations and a statement that the applicant has no pending interests in lands contiguous to the permit area.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations. Information in the revised Appendix 1-12 should be checked against the applicant violator system.

RIGHT OF ENTRY

Regulatory Reference: R645-301-114

Analysis:

The applicant needs to obtain right of entry for this area before the Division can approve the amendment. The application says Genwal will obtain a coal right of way from the Bureau of Land Management to extend the longwall panels to the west boundary of Section 2 of Township 16 South, Range 6 East, with setup rooms and barrier pillars in the incidental boundary change area. The area is shown on Plates 1-1, 4-4, and 5-2A. The application includes a legal description of the area.

Findings:

Information provided in the proposal is not considered adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following in accordance with:

R645-301-114, The applicant needs to supply complete right of entry information.

ENVIRONMENTAL RESOURCE INFORMATION

LAND USE AND HISTORIC AND ARCHAEOLOGICAL RESOURCES INFORMATION

Regulatory Reference: R645-301-411 and R645-301-412

Analysis:

Current land uses in the area are grazing and wildlife, and the proposed mining is not expected to affect these uses. The application would update portions of the plan referencing cemeteries, the Wild and Scenic Rivers System, and the National System of Trails and show that none of these features is in the proposed addition to the permit area.

The applicant has updated maps that show grazing allotments and oil and gas development The proposed mining should not affect grazing, and Plate 4-3 does not show any oil or gas development in the incidental boundary change area.

The application does not include additional information about cultural resources in the area; however, since no surface disturbance would occur and subsidence is unlikely, no information should be needed. The State Historic Preservation office has previously concurred with similar proposals, and the Division should recommend a cultural resources clearance based on no surface disturbance.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations. The Division should recommend a cultural resources clearance from the Division of State History based on no surface disturbance.

VEGETATION AND FISH AND WILDLIFE INFORMATION

Regulatory Reference: R645-301-321 and R645-301-322

Analysis:

Vegetation and fish and wildlife maps have been updated to include the incidental boundary change area. Vegetation in the area consists primarily of aspen and conifer communities, and these would be expected to provide habitat for big game calving and fawning and for tree-nesting raptors. The area contains poor habitat for cliff-nesting raptors, and no nests were found in the area in the 1998 raptor survey.

No listed threatened or endangered species are know to inhabit the area with the possible exception of bald eagles and peregrine falcons that might fly over occasionally.

Because the proposal is for underground development only and because surface effects are unlikely, no further information is required.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Baseline ground-water information.

Seep and spring surveys were conducted in the area around the IBC in 1987, 1989, and 1990. Plate 7-12 in the current MRP shows locations. The area was resurveyed in 1997 by Gary Gray and Eric Peterson. No seeps or springs were identified in the IBC area (p. 7-3).

Findings:

No other environmental hydrologic resource information has been submitted with the IBC application. Hydrologic resource information provided in the IBC application and the current MRP is considered adequate to meet the requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Affected Area Boundary Maps

The boundaries of the areas to be affected over the estimated total life of the proposed underground mining activities are shown on revised versions of Plates 1-1, 3-1, 3-2, 4-1, 4-2, 4-3, 4-4, and , 5-2A. Plate 5-2A shows the size, sequence, and timing of mining of the IBC and adjacent areas.

Mine Workings Maps

Plates 5-1 and 5-2 in the current MRP show mine workings in the permit and adjacent areas. Plate 5-2A shows location and extent of recent and projected underground mine workings in the proposed IBC and immediately adjacent areas.

Permit Area Boundary Maps

The boundaries of the permit area upon which the applicant has the legal right to enter and begin underground mining activities or upon which an application has been made to the BLM for a right-of-way in the proposed IBC are shown on revised versions of Plates 1-1, 3-1, 3-2, 4-1, 4-2, 4-3, 4-4, and 5-2A.

Surface and Subsurface Manmade Features Maps

There are no surface and subsurface manmade features within or passing over the IBC or permit areas (p. 4-3).

Well Maps

Plate 4-3 shows boundaries of the Oil and Gas Analysis Areas and also locations of the existing gas wells in the IBC and adjacent areas.

Surface and Subsurface Ownership Maps

Plate 4-4 shows surface ownership. Plate 1-1 shows subsurface ownership within the current permit area; however, it does not show surface ownership in the IBC and adjacent areas.

Certification

Maps and plans included in the IBC application have been certified by a qualified, registered, professional engineer.

No maps pertaining to the following were with the IBC submittal:

Archeological Site Maps
Coal Resource and Geologic Information Maps
Existing Structures and Facilities Maps
Existing Surface Configuration Maps
Cultural Resource Maps
Monitoring Sampling Location Maps
Subsurface Water Resource Maps
Surface Water Resource Maps
Vegetation Reference Area Maps
Contour Maps

Findings:

Maps, plans, and cross sections of resource information provided in the IBC application are considered adequate to meet the requirements of this section.

OPERATION PLAN

FISH AND WILDLIFE RESOURCE PROTECTION PLAN

Analysis:

The current mining and reclamation plan contains plans for monitoring and protecting wildlife. The incidental boundary change area is almost entirely for setting up longwall rooms and barrier pillars, so subsidence is unlikely. Therefore, additional protection plans are not required.

The application includes some information about the Colorado cutthroat trout that were found in Crandall Creek before it was culverted and about the mitigation work done for this fish and the riparian areas. This does not relate directly to the current proposal, but it can be approved.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR Sec. 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

Type and Method of Mining Operations

The Permittee describes the plan for handling water if it is encountered in the 50-acre IBC. The plan is given in Section 5.23 of the amendment (Page 5-10) and is as follows:

When mining in the longwall gate entry nears the fault (between 200-300 feet away) an underground drill will be used to drill west toward the fault to determine its location. The drill will drill horizontally toward the fault up to 50 feet ahead of the entry face. If the fault is not encountered, the continuous miner will advance about 30-40 feet toward the fault, leaving at least 10 feet of coal between the entry and the end of the hole. The drill will again drill ahead. This sequence will continue until either water of a fault gouge is encountered in the hole or the entry has been developed to its maximum extent (providing no fault was detected). If the fault is encountered prior to reaching the bleeder entries, then mining will stop and the bleeder entries will be relocated. At least 10 feet of solid coal will be left between the face of the entry and the fault.

At least one horizontal hole will be drilled in the headgate and tailgate of each panel. Should water be encountered by the drill hole, the hole would be immediately plugged and entry development would terminate at this point. Although large amounts of water and high pressure have not been previously encountered by mining near the fault, an emergency plan to handle water inundation from the fault has been developed. The plan consists of the following actions:

1. Pull equipment back from the face.
2. Erect two Kennedy stoppings at least 2 feet apart.
3. Place appropriate sized de-water pipe with a valve at the bottom of the stoppings.
4. Pump quick drying cement into the space between the stoppings.
5. After minimum drying time, close water valve.

The Division found the plan to be adequate to protect the water resources.

Findings:

The Permittee met the minimum requirements of this section.

COAL RECOVERY

Regulatory Reference: 30 CFR Sec. 817.59; R645-301-522.

Analysis:

The Permittee applied for the 50-acre IBC because once mining in the area is completed the coal reserves in the 50-area IBC will be inaccessible.

The Joe's Valley fault will prevent access to the IBC from the west. Once mining has been completed on the east side of the fault access from that direction will be blocked. Only first mining will be done in the IBC to prevent subsidence from affecting the Joe's Valley fault.

Findings:

The Permittee met the minimum requirements of this section.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR Sec. 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Renewable resources survey.

In the Surface Features and Facilities Subject to Subsidence section of the amendment the Permittee includes the following:

Both forks of Crandall Creek are considered to be perennial at least up to the federal lease boundary with State Lease ML-21568.

The Division hydrologist reviewed and approved that statement.

Subsidence control plan.

(1) A description of the method of coal removal, such as longwall mining, room-and-pillar removal, hydraulic mining, or other extraction methods, including the size, sequence, and timing for the development of underground workings.

First mining only will be done in the 50-acre IBC to prevent subsidence. Stipulation #20 with the USFS requires that a subsidence free zone be maintained within a 22° angle of draw from the Joe's Valley fault. Therefore, the Permittee has no choice but to use first mining only.

(2) A map of underground workings which describes the location and extent of areas in which planned-subsidence mining methods will be used and which includes all areas where measures will be taken to prevent or minimize subsidence and subsidence related damage and where appropriate, to correct subsidence-related material damage.

Plate 6-2 shows the subsidence boundaries. The plate was not updated since the Permittee does not expect subsidence to occur from mining in the 50-acre IBC.

(3) A description of the physical conditions, such as depth of cover, seam thickness, and lithology, which affect the likelihood or extent of subsidence and subsidence-related damage.

No changes were made to this section.

(4) A description of monitoring, if any, needed to determine the commencement and degree of subsidence so that, when appropriate, other measures can be taken to prevent, reduce, or correct material damage.

In the Subsidence Monitoring section of the PAP the Permittee proposes changing the subsidence monitoring system. The change is in response to a written request by the Forest Service to conduct annual subsidence monitoring until subsidence of less than one foot has been measured for three consecutive surveys.

(5) Except for those areas where planned subsidence is projected to be used, a detailed description of the subsidence control measures that will be taken to prevent or minimize subsidence and subsidence-related damage, including, but not limited to: backstowing or backfilling of voids; leaving support pillars of coal; leaving areas in which no coal is removed, including a description of the overlying area to be protected by leaving the coal in place; and, taking measures on the surface to prevent material damage or lessening of the value or reasonably foreseeable use of the surface.

The first mining only will be done in the 50-acre IBC.

(6) A description of the anticipated effects of planned subsidence, if any.

The Permittee does not anticipate any subsidence in the IBC area.

(7) A description of the measures to be taken to mitigate or remedy any subsidence-related material damage to, or diminution in value or reasonably foreseeable use of the land, or structures or facilities to the extent required under State law.

The Permittee committed to mitigate any subsidence damage that they caused.

(8) Other information specified by the Division as necessary to demonstrate that the operation will be conducted in accordance with the performance standards for subsidence control.

The Division does not require any other subsidence information for this amendment.

Performance standards for subsidence control.

The Permittee committed to meet the performance standards for subsidence control.

Findings:

The Permittee met the minimum requirements of this section.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Coal mine waste.

In Section 5.28.30 of the PAP the Permittee states:

The waste generated by the normal underground mining activities will be brought outside the mine for disposal which includes, but not limited to the following: wood, paper, scrap metal, belting, etc., could possibly be disposed of underground on pillar lines in accordance with MSHA regulations.

The Permittee proposes to remove the following:

> ... which include, but not limited to the following: wood, paper, scrap metal, belting, etc., could possibly be disposed of underground on pillar lines in accordance with MSHA regulations.

The Permittee also makes a commitment to remove scrap metal and used equipment from the mine unless safety considerations prevent removal.

The Division and the USFS now require all permittees to inventory the noncoal waste that is left underground. By removing as much of the noncoal waste as possible from underground the Permittee will have less material to inventory.

Findings:

The Permittee met the minimum requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected area maps.

The existing permit boundaries are shown on Plate 1-1 in addition to the 50-acre IBC. Other maps and plate also show the proposed change to the permit boundary.

Mine workings maps.

Plate 5-2A shows the projected mine workings for the existing permit boundary and the proposed 50-acre IBC. The text states how mining will be conducted to prevent subsidence in the 50 IBC. The Division is confident that no subsidence will occur in that area.

Findings:

The Permittee met the minimum requirements of this section.

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:

In order to keep at least 10 feet of coal between the mine workings and ground water associated with the Joes Valley fault system, GENWAL plans to locate faults and ground water by drilling up to 50 feet ahead of mining operations as the face is advanced. If, in spite of the efforts to avoid the fault, ground water begins to inundate the workings, the MRP includes a plan to pull back from the face and seal the section with stoppings and quick-drying cement. No longwall mining will be done within a 22 degree angle-of-draw projected from the surface trace of the Joes Valley fault, so no subsidence should intersect the fault zone.

Stream Buffer Zones

Reference is made on page 5-20 to defining the both forks of Crandall Creek as perennial at least up to the Federal and State Lease boundary. This is consistent with Plate 7-16 and accompanying text of the original MRP and is acceptable.

Sediment Control Measures

A slotted culvert has been installed below the coal loadout and storage area. This drains to the sediment pond and is a substantial improvement to the site. This will alleviate a past ongoing problem of coal fines entering Crandall Creek below the loadout.

Other Treatment Facilities

The amendment, pages 5-35 and 36, revises the handling of garbage and noncoal waste on the project by removing it from the site to an approved waste disposal facility as opposed to the previously approved disposal underground. See also Regulatory Reference R645-301-528.330.

Findings:

Operation hydrologic information provided in the IBC submittal is considered adequate to meet the requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected area maps.

The boundaries of the areas to be affected over the estimated total life of the proposed underground mining activities are shown on revised versions of Plates 1-1, 3-1, 3-2, 4-1, 4-2, 4-3, 4-4, and , 5-2A. Plate 5-2A shows the size, sequence, and timing of mining of the IBC and adjacent areas.

Mine workings maps.

Plate 5-2A shows location and extent of know workings of active, inactive, or abandoned underground mines the proposed IBC and immediately adjacent areas.

No maps pertaining to the following were with the IBC submittal:

Mining facilities maps.

Monitoring and Sampling Location Maps.

Certification Requirements.

Maps and plans included in the IBC application have been certified by a qualified, registered, professional engineer.

Findings:

Maps, plans, and cross sections of mining operations provided in the IBC submittal are considered adequate to meet the requirements of this section.

RECLAMATION PLAN

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

In Section 5.42.60 of the PAP, the Permittee clarifies the reclamation plan for the main road through the mine site. The USFS now wants the Permittee to remove the asphalt surface. The Permittee restated their commitment to reclaim the road to the specification stated in the road use permit.

Findings:

The Permittee met the minimum requirements of this section.

HYDROLOGIC INFORMATION

Regulatory Reference R645-301-762

Analysis:

The amendment describes and clarifies how the road will be reclaimed according to the Forest Service Special Use Permit. The entire asphalt road paving surface will be removed. This clarifies a past area of confusion in the MRP and complies with the State regulations.

Finding:

The amendment meets minimum regulatory requirements

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

UDOGM has previously provided an assessment of the probable cumulative hydrologic impacts of GENWAL's Crandall Canyon Mine operation and all anticipated mining upon surface- and ground-water systems in the cumulative impact area, and it was determined that the Crandall Canyon Mine operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The proposed IBC contains information on how underground mining will be conducted

so as to protect hydrologic systems possibly associated with the Joes Valley fault and to prevent material damage to the hydrologic balance in Joes Valley. The proposed IBC has been reviewed by the Division and it has been determined by the Division that a new or updated CHIA is not required. The permitted area will remain within the boundaries of the existing CIA, and there will be no mining operations in hydrologic basins other than those approved in the current permit. There is no need for additional cumulative impact area information.

O:\015032.CRA\FINAL\50ACRE.TA