



Technical Analysis and Findings
Utah Coal Regulatory Program

May 12, 2016

PID: C0150015
TaskID: 5179
Mine Name: EMERY DEEP MINE
Title: CONCRETE PADS

Operation Plan

Mining Operations and Facilities

Analysis:

The amendment meets all the State of Utah R645 requirements for Mining Operations and Facilities.
The amendment meets the requirements of R645-301-523, -526, and 528 by addressing the support facilities to be constructed within the previously disturbed area.
The amendment meets the requirements of R645-301-523 by including a description of the mining operation, method of coal mining, engineering techniques, anticipated annual and total production of coal by tonnage, and major equipment to be used for all aspects of those operations proposed to be conducted during the life. Emery recently was sold to new owners who intend to re locate the support facilities at the old bone yard location. The revision includes: the addition of a four concrete pad foundations next to the current substation, installing a new screening and crushing facility locations, and a truck loadout for the Emery 2 expansion project. Plate II-1 included in the revision details the facilities associated with this revision in red, existing facilities in black, and all future proposed facilities in blue.
In future submission the Permittee must include specific narrative detailing what diversion structure drainage from specific facilities will report to in Chapter II. A narrative explaining the information presented on Plate II-1 should also be included to show stages of development and how bonding of structures will be handled.

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Support Facilites and Utility Installations

Analysis:

The amendment meets the State of Utah R645 requirements for Support Facilities and Utility Installations.
The amendment meets the requirements of R645-301-521.180 and -526 the require the description, plans, and drawing for each support facility to be constructed, used, or maintained within the proposed permit area. The revision includes: the addition of a four concrete pad foundations next to the current substation, installing a new screening and crushing facility locations, and a truck loadout for the Emery 2 expansion project. The concrete pads will contain 75 cubic yards of concrete and be installed east of the main facilities. The area has already had soil salvage operations as the new substation will be adjacent to the existing substation. The truck load at the time of this revision will include the addition of a concrete pad approximately 100 ft by 12 ft and eight inches thick. No new structures will be developed at the time of this revision. The existing loadout facilities will be relocated to the new pad site. The screening and crushing facility will consists of a 29 ft by

50 ft and three feet thick slab of concrete for foundations. The revision does not contemplate new structure on pad at this time but the relocation of existing Tipple building to the new pad area. Plate II-1 included in the revision details the facilities associated with this revision in red and all future proposed facilities in blue.

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## Maps Affected Area

### Analysis:

The amendment meets the State of Utah R645-301-521.100 requirements for Affected Area Maps.

The amendment meets the requirements of R645-301-521.100 through-521.130 by updating all the relevant maps for the entire area shown on the mine plan as detailed on Plate II-1. The facilities associated with the revision are shown in red, existing facilities are shown in black, and future facilities are shown in blue. Blue items will be addressed when the Permittee submits Stage 1 mining operations and reclamation plan for Emery 2.

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## Maps Facilities

### Analysis:

The amendment meets the State of Utah R645 requirements Mining Facilities Maps.

The amendment meets the requirements of R645-301-521.120 through-521.125 which require maps to clearly show existing surface and subsurface facilities. Plate II-1 was updated to show existing facilities in black. Blue items are proposed future facilities and will be addressed when the Permittee submits Stage 1 mining operations and reclamation plan for Emery 2.

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## Maps Certification Requirements

### Analysis:

The amendment meets the State of Utah R645-301-512 Certification Requirements.

R645-301-512 requirements are met as all mine drawings and plates are stamped by a Utah certified professional engineer Richard White, who has experience in underground mining operations.

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## Reclamation Plan

### General Requirements

### Analysis:

The amendment meets the State of Utah R645 requirements for Reclamation Activities.

The requirements of R645-301-540 are met within the amendment as there is no change to the existing MRP reclamation details in Chapter III Parts A.1 through G.4UMC 784.11(b). All facilities will be reclaimed as described in Chapter III Part B.1. Plates III-1 through III-4 remain unchanged showing maximum disturbance areas. Plates III-5 through III-8 shows the post mining topography remained unchanged.

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## Maps Bonded Area

### Analysis:

The amendment meets the State of Utah R645 requirements for Bonded Area.

The requirements of R645-301-800 are met within the amendment as the bonded area map was not updated due to no increase in disturbance areas on Plate III-9.

### Maps Reclamation Backfilling and Grading

*Analysis:*

The amendment meets the State of Utah R645 requirements for Reclamation Backfilling and Grading Maps.  
The requirements of R645-301-542 are met within the amendment as there is no change to the existing MRP plan of backfilling and grading areas or volumes detailed on Plates III-5 through III-8.

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### Maps Reclamation Facilities

*Analysis:*

The amendment meets the State of Utah R645 requirements for Reclamation Facilities Maps  
The requirements of R645-301-542 are met within the amendment as there is no change to the existing MRP plan of facilities that will remain post mining operations detailed on Plate III-4 and III-8.

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### Maps Reclamation Final Surface Configuration

*Analysis:*

The amendment meets the State of Utah R645 requirements for Final Surface Configuration Maps.  
The requirements of R645-301-542 are met within the amendment as there is no change to the existing MRP plan of the estimated final surface configuration back to AOC on Plates III-5 through III-8.

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### Maps Reclamation Surface and Subsurface Man Made

*Analysis:*

The amendment meets the State of Utah R645 requirements for Reclamation of Surface and Subsurface Manmade Features Maps.  
The requirements of R645-301-542 are met within the amendment as there is no change to the existing MRP plan in the surface and or subsurface manmade features within the permit area on Plate III-1 through III-9.

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### Bonding and Insurance General

*Analysis:*

The amendment meets the State of Utah R645 requirements for Bonding and Insurance Requirements.  
The amendment meets the requirements of R645-301-800 as the applicant is current on the bond and insurance standings.

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### Bonding Form of Bond

*Analysis:*

The amendment meets the State of Utah R645 requirements for Form of Bond.  
The amendment meets the requirements of R645-301-860.100 as the applicant currently maintains a surety bond amount of \$3,510,000 which is held by Ironshore Indemnity Inc.

## Bonding Determination of Amount

### Analysis:

The amendment meets the State of Utah R645 requirements for Determination of Bond Amount.

The amendment meets the requirements of R645-301-830.140 as the Permittee submitted detailed bond information in regards to the amendment. The Permittee added three additional bond sheets (e2 Substation pads e1, e2 Loadout pads e2, and e2 S & C pads e3). The substation pad consists of the addition of 75 CY of concrete for four additional pads at the substation location. The Loadout pad consist of a single pad 100 ft by 12 ft and eight inches thick, for a total of 30 CY of concrete. The Screen and Crusher pad consists of a single pad 29 ft by 50 ft and three feet thick for a total of 161 CY of concrete. All concrete will be broken up and disposed of onsite for backfill of the portals or disposed of offsite in an approved facility.

The total cost of the demolition stated in the revision is \$243,651. There was an error on the loadout pad, the revision states \$298, when the Division calculates only \$294 that leads to a slightly lower Division estimate. The total Division Demolition subtotal is \$243,648. The total required Bond amount stat in the revision is \$3,678,000 in 2018 dollars. The total amount posted in 2009 is \$3,510,000. The bond is -4.6% under bonded but with Technical Memo 007 5% of the Division's estimate and therefore adequate.

There is an error on the three new demo sheets as the sheets did not get updated titles, but retained the Trash Pit 44 title presumably from a copy mistake in creating the new sheets. The Permittee will fix the titles to match the Demo Subtotal sheet e2 Substation pads e1, e2 Loadout pads e2, and e2 S & C pads e3.

The revision is recommended for conditional approval upon the clean copies submission address the naming errors of the Demo sheets.

To meet R645 regulations and Division standard submission requirements the Permittee in future submissions will correct the following:

- Highlight any new or changed numbers in excel in red text
- Update headers of all sheets to match revision dates
- Utilize an escalation factor of 1.9% for 2013 for a total escalation amount of \$335,882

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## Bonding Terms and Conditions Liability Insurance

### Analysis:

The amendment meets the State of Utah R645 requirements for Terms and Conditions for Liability Insurance.

The amendment meets the requirements of R645-301-850 as the applicant currently holds liability insurance through Illinois Nation Ins Co, effective until 12/16/16. The insurance includes the required Marsh from, explosives and claims made per occurrence.

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