



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

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April 29, 2002

TO: Internal Files

FROM: Stephen J. Demczak, Sr. Reclamation Specialist/Engineering, Team Lead *sgd by an*

RE: 4<sup>th</sup> East Portal Excavation, Consolidation Coal Company, Emery Deep Mine, C/015/015-02A

**SUMMARY:**

Emery Deep Mine has submitted a blasting plan to be used for the development of the 4<sup>th</sup> East Portals. The location is approximately three miles from the town of Emery, Utah. The permittee plans to use explosives from the day after the Division gives approval till October 1, 2002. It is anticipated that several shots will use five pounds or more of explosives.

**TECHNICAL ANALYSIS:**

**OPERATION PLAN**

**USE OF EXPLOSIVES**

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

**Analysis:**

**General**

The permittee must have a certified blaster and one other person present at each firing of a blast.

The permittee has a site-specific blast plan. Shawn Miller a certified blaster badge No. 210 has signed the blasting plan. This plan contains a sketch, and all critical dimensions and information to protect the public.

TECHNICAL MEMO

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### **Preblasting Survey**

The permittee has conducted a preblast survey. There are residents or owners of dwellings or structures within ½ mile of the permit area. The residence and owners have waived their right to a preblast survey prior to 30 days of the initial blast. Signed copies of the waivers are on file at the permit area.

The nearest private building to the blast site is approximately 2.7 miles.

All blast will be conducted between sunrise and sunset. The Division has not granted nighttime blasting in this approval. The operator has not made a showing that the public will be protected from adverse noise and other impacts.

A blasting schedule will be posted at the Emery Deep Mine, and copies sent to Local Government. The schedule is Monday thru Sunday between the hours of 8:00 am – 6:00pm.

### **Blasting Signs, Warnings and Access Control**

The permittee will place blasting signs along the edge of the blasting area. Signs will be placed at all accessible entrances to the blasting area that are within the permit area from the public road stating "Blasting Area" and "Warning! Explosives in Use." Access control (flag personnel) will be exercised preventing anyone from entering the blasting area.

### **Control of Adverse Effects**

There are no buildings or structures within 1/2 mile of the blast site. The nearest structure to the blast site is 2.7 miles and is not on the same horizon of the 4<sup>th</sup> East Portals. However, the blasting plan takes into account a power line ¾ of a mile away. The Division sees no impact to these structures from an air blast.

The operator has a blasting design to take into account measures to prevent flyrock from being cast beyond the permit boundary. The blaster will be doing pre-splitting of the rock to reduce the possibility flyrock from going outside the permit area. The pre-splitting of the rock should reduce the pressure of the blast to prevent fly rock from leaving the permit area. The blast is only several hundred feet from the permit boundary. The certified blaster has stated no blasting mats will be used.

The power line is ¾ miles from the blast. The permittee will use Maximum Peak-Particle Velocity of 1-inch with a scale distance factor of 55 (Ds) see page 67 in the R645 Coal Rules. The operator will use the scaled-distance equation for not exceeding ground vibration.

### **Record of Blasting Operations**

The permittee will keep records of all blasts and maintain the records at the mine site for three years. A copy of the blasting record is on Page 12 of this amendment. This document, when filled out correctly, will comply with R645-301-524.700 (Records of Blasting Operation).

### **Findings:**

The permittee has met the minimum requirements of this section in the R645 Coal Rules.

### **RECOMMENDATIONS:**

The permittee has met the minimum requirements to use five pounds or more of explosives per shot. Therefore, it is recommended that this blasting plan amendment be approved.

TECHNICAL MEMO

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