

0038



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

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September 14, 2001

TO: Internal File
FROM: Stephen J. Demczak, Sr. Reclamation Specialist
RE: Blasting Plan, Canyon Fuel Company, LLC., Dugout Mine, C/007/039-AM01I

Sm for SOP

SUMMARY:

The permittee has submitted an explosives plan to use more than five pounds of explosive per shot. This plan will be used to remove rock in the existing ditch next to the County road. A pipeline will be installed to transport wastewater from the mine to the leach field.

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 has submitted a certified blaster certificate from Shane Campbell, Badge Number 118. This certified blaster is the contractor who is currently constructing the leach field.

The permittee has described the blasting design in the amendment. The blasting design consists of cross-sections that give stemming height, hole sizing, depth of hole, type of explosive, and delays.

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The amendment has noted that the certified blaster will have one other person present at the firing of a blast.

R645-301-524.211 - The permittee has not addressed whether blasting will be conducted within 1,000 feet of any building used as a dwelling, public school, church, or community or institutional building outside the permit area. Being the inspector, it appears that no such structure exists. However, this should be addressed by the permittee and not by the reviewer/inspector.

R645-301-524.212 - The permittee has not addressed blasting within 500 feet of an active or abandoned underground mine. This reviewer is aware that there are not any abandoned or active mines within 500 ft. This should have been address by the permittee.

R645-301-524.240 - The certified blaster did not sign the blasting design that was submitted in the amendment.

Preblasting Survey

R645-301-524.300 - The pre-blast survey must be described in the permit application for underground coal mining and reclamation activities using more than five pounds of blasting agent or explosives. The permittee has stated, "A pre-blast survey will be submitted to the Division at a time before the blast."

Performance Standards

The permittee has committed within the amendment to conduct blasting between sunrise and sunset.

R645-301-524.452 – The permittee has stated that a schedule will be posted at the mine site and given to the local government. The permittee will also have to give a copy to the public utility (UP&L), as this is a requirement. This is important since the power lines are near the blast area.

R645-301-524.463 thru 645-301524.465 - The permittee has published the blasting schedule in the local newspaper giving detail of the blasting area. However, the blasting dates, audible warning, all-clear signals, and the method to be used to control access, were not made available in the blasting schedule.

Blasting Signs, Warnings and Access Control

In the amendment, the permittee has committed to have the blasting signs comply with the sign specification of coal rule R645-301-521.200.

R645-301-524.511 - The permittee must conspicuously place signs that read, "Blasting Area" along the end of any blasting area that comes within 100 feet of any public road right-of-way. This commitment was not addressed in the blasting plan.

The permittee has made a commitment in the amendment to place signs that state "Warning! Explosives in Use."

R645-301-524.520 - "Warning" and "all-clear" signals of different character or pattern that is audible within a half mile range is required. The permittee has not addressed this rule in the amendment.

The permittee has stated, "Access control will be exercised preventing anyone from entering the blasting area."

Control of Adverse Effects

The permittee will control adverse blasting effects by the use of blasting mats for flyrock. Air blast and ground vibrations will not have adverse effects since the nearest building is one-half mile away from the blast site.

Record of Blasting Operations

The application states, "That no structures exist within a distant that would present concerns from airblast or ground vibration." The nearest structures that I am aware, is the truck loadout at Dugout mine. This is approximately one-half mile from the blasting area.

The permittee will use blast mats, which will prevent flyrock from damaging the power line. This action will reduce the maximum peak-particle velocity.

The permittee has submitted a blasting record form to be filled out after each shot. This form is adequate to meet the requirements of this section of the Coal Rules.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

R645-301-524.211, The permittee must address whether the blasting will be conducted within 1,000 feet of any building used as a dwelling, public school, church, or community or institutional building outside the permit area.

R645-301-524.212, The permittee has to address if blasting occurs within 500 feet on an

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active or abandoned underground mine.

R645-301-524.240, The certified blaster will need to sign the blasting design submitted in the amendment.

R645-301-524.300, The pre-blast survey must be described in the permit application for underground coal mining and reclamation activities using more than five pounds of blasting agent or explosives.

R645-301-524.452, The permittee has stated that a schedule will be posted at the mine site and given to local government. The permittee will commit in the amendment to give a copy to the public utility (UP&L), as this is a requirement.

R645-301-524.463 thru 645-301-524.465, The permittee has published the blasting schedule in the local newspaper giving detail of the blasting area. The permittee must include in the blasting schedule the blasting dates, audible warning, all-clear signals, and the method to be used to control access. The blasting schedule must submit to the Division for review prior to submitting the blasting schedule to the local government and public utilities (UP&L).

R645-301-524.511, The permittee must commit to conspicuously place signs reading "Blasting Area" along the end of any blasting area that comes within 100 feet of any public-road-right-of-way the amendment.

R645-301-524.520, "Warning" and "all-clear" signals of different character or pattern that are audible within a half mile range is required. A commitment must be given in the amendment.

RECOMMENDATIONS:

Prior to approval, the requirements of the above aforementioned coal rules must be provided as outlined above.