



BUREAU OF MINE SAFETY

July 12, 2012

Mr. Brandon Williamson Consol Pennsylvania Coal Company BMX Mine – BMX Portal 332 Enon Church Road West Finley, PA 15377

RE: BMX – Plan for Diesel Refueling in Primary Intake Escapeway

Dear Mr. Williamson:

Chapter 4 of the "Bituminous Coal Mine Safety Act" (the Act) provides for the use of diesel-powered equipment in underground bituminous coal mines. Section 424 of the act created a Technical Advisory Committee ("TAC") for the purpose of advising the Department regarding implementation of Chapter 4 and evaluation of alternative technology or methods for meeting the requirements of Chapter 4.

On June 26, 2012, you submitted a letter to the Bureau requesting a revision to your approved plan for the refueling of diesel powered equipment in the primary intake escapeway as required by section 411(a) of the State Mining Law. Enclosed is the TAC's report on their findings for this piece of equipment. All of their findings must be adhered to in regards to use of this equipment.

At the regularly scheduled TAC meeting on July 11, 2012, the TAC recommended approval only for the "Plan to Refuel Diesel Equipment in the Primary Intake Escapeway"; it is not intended to establish guidelines for other mines. The TAC also recommends that all request for refueling in the intake escapeway be handled on a mine by mine basis.

If you have any questions on this request, please contact me at isbaffoni@pa.gov or at 724-439-7469.

Bureau of Mine Safety

cc:

Bowersox

Borchick

Enclosure(s)

Fayette County Health Center | 100 New Salem Road, Room 167 | Uniontown, PA 15401 Printed on Recycled Paper

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Pennsylvania Technical Advisory Committee **On Diesel Powered Equipment**

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July 10, 2012

Joseph Sbaffoni, Director Bureau of Mine Safety Fayette County Health Center 100 New Salem Road, Room 167 Uniontown, Pa. 15401

TAC review and recommendation for the revision to the approved BMX Mine "Plan to RE: Fuel Diesel Equipment in the Primary Intake Escapeway" dated June 26, 2012.

Dear Mr. Sbaffoni:

Chapter 4 of the "Bituminous Coal Mine Safety Act" (the Act) provides for the use of diesel-powered equipment in underground bituminous coal mines. Section 424 of the act created a Technical Advisory Committee ("TAC") for the purpose of advising the Department regarding implementation of Chapter 4 and evaluation of alternative technology or methods for meeting the requirements of Chapter 4.

Section 411 of the Act (Fueling) states "In those cases where fueling in the intake escapeway is necessary, the mine operator shall submit a plan for approval to the department, which shall be investigated by the Technical Advisory Committee in accordance with section 424, outlining the special safety precautions that will be taken to insure the protection of the miners...".

Background

On June 26, 2012 BMX Mine submitted a revision to their approved Plan to Fuel Diesel Equipment in the Primary Intake Escapeway. This revision was submitted to include the use of the Self Propelled Diesel Fuel "Tanker" and the Diesel Fuel "Pod" and that may be used as part of the process of fueling diesel equipment in the primary intake escapeway.

On July 5, 2012 the Director requested that the TAC advise the Department whether or not the plan meets the requirements of the Act.

Investigation

The TAC travelled to the BMX Mine on April 5 to discuss with the mine the changes that would be necessary to the BMX approved "Plan to Fuel Diesel Equipment in the Primary Intake Escapeway" to utilize the diesel fuel pod. The changes to the "Plan to Fuel Diesel Equipment in the Primary Intake Escapeway" reviewed is site specific to the BMX Mine, and not intended to establish guidelines for other mines. This TAC investigation and recommendation is only applicable to this plan at BMX.

The TAC investigation is guided by Section 411 (Fueling) of the Act as well as other pertinent sections. The TAC worked with all parties to develop a plan that incorporated special safety precautions to ensure the protection of miners and complied with all the requirements of the Act. Mine specific safety features were considered during review of the fueling plan. These included the track haulage equipment and system, the mine communication system, and the mine wide carbon monoxide (CO) monitoring system being utilized at BMX.

BMX Mine identified the need to use the tanker or fuel pod to fuel diesel powered equipment in the primary intake escapeway. This will be necessary at times on the Mains and also the 3 Entry Gate sections due to mine development plans.

The Self Propelled Diesel Fuel Tanker is a mobile diesel fuel transportation unit that meets the requirements of Sections 406, 407 and 408 of the Act. This tanker is not intended to be used as a diesel fuel storage facility, and thus does not meet the requirements of Section 405. The tanker must be either continuously attended or parked in an area that meets the requirements of Section 405.

The BMX Mine intends to use the Caterpillar Diesel Fuel Pod once it is approved by the Department. Caterpillar designed and submitted to the DEP for approval of the Caterpillar "Diesel Fuel Pod" which is designed to meet the requirements of Section 405 of the Act. The pod incorporates a diesel fuel storage tank inside an outer pod enclosure that serves as the fuel storage facility. The concept for the use of the pod is to be able to store a limited amount of diesel fuel on a working section to safely and efficiently fuel the diesel equipment used in the section. This would reduce the necessity and frequency of trips transporting diesel fuel to the section with the fuel buffalo. Reducing the use of the fuel buffalo would improve the safety of the fueling process.

The "diesel fuel pod" is a new technology that falls under multiple sections of the ACT. As such the TAC had to consider all sections of the ACT and to ensure that the process of utilizing the new technology does not reduce or compromise the level of health and safety protection afforded by the ACT.

The "diesel fuel pod" incorporates a diesel fuel storage tank inside an outer pod enclosure that serves as the fuel storage facility. The concept for the use of the pod is to be able to store a limited amount of diesel fuel on a working section to safely and efficiently fuel the diesel equipment used in the section. This would reduce the necessity and frequency of trips transporting diesel fuel to the section with the fuel buffalo. Reducing the use of the fuel buffalo would improve the safety of the fueling process.

The fuel pod is constructed of noncombustible materials, is designed to be vented directly into the return once set up, and it includes an automatic fire suppression and self-closing doors as required by Section 405. The "Diesel Fuel Pod" must meet all requirements of

Section 405 of the ACT, and thus not reduce or compromise the level of health and safety protection afforded by the ACT.

The fuel pod is not intended to be substituted as a mobile fuel buffalo. BMX Mine stated that when it is necessary to fill the fuel pod, the fuel buffalo or tanker will be brought to the pod. As such the fuel pod will not be transported on a car to be filled. BMX agreed that if and when the fuel pod is transported on a car, the diesel fuel level in the tank will be minimized and the fuel pod will be permanently fixed (bolted and chained) to the car. It was agreed that a person assigned to move the fuel pod will be a trained diesel equipment operator.

The Pod's diesel fuel storage tank is inside an outer pod enclosure that serves as the fuel storage facility. This diesel fuel pod incorporates an automatic fire suppression system inside the enclosure that meets the requirements of Section 408 of the ACT.

The TAC, after reviewing the BMX Mine approved "Plan to Fuel Diesel Equipment in the Primary Intake Escapeway", recommended that the plan be amended to incorporate the use of the approved "Diesel Fuel Pod". The mine submitted a new version of their "Plan to Fuel Diesel Equipment in the Primary Intake Escapeway" to the TAC and DEP. (Attachment 1). These changes address the use of the tanker and the diesel fuel pod when it is being used to fuel diesel equipment in the primary intake escapeway.

The TAC believes that this plan will provide adequate protection to the miners when fuel transfer will take place in the intake escapeway and does not compromise the level of health and safety as required by the Act.

Recommendation

The TAC recommendation and review of the revision to the BMX Mine's approved "Plan to Fuel Diesel Equipment in the Primary Intake Escapeway" is site specific.

The TAC recommendation is based on the plan complying with Chapter 4 of the Act, conversations with the operator, observations made during the review of the mine map, communications and tracking system, and a review determining if the plan does not compromise the level of health and safety as provided by the Act.

The TAC thoroughly investigated this site-specific request and recommends approval of the revisions to the attached plan (Attachment 1). The TAC believes this plan for BMX Mine meets all the requirements of Section 411 and does not compromise the level of health and safety provided the miners under the Act and, therefore, recommends approval.

This recommendation for approval is only for the "Plan to Fuel Diesel Equipment in the Primary Intake Escapeway" at BMX Mine. It is not intended to establish guidelines for other mines. The TAC also recommends that all requests for fueling in the intake escapeway be handled on a mine by mine basis.

Paul Borchick

Ron Bowersox

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Bureau of Mine Safety Uniontown



Consol Pennsylvania Coal Company

BMX Mine BMX Portal 332 Enon Church Rd. West Finley, Pennsylvania 15377 (724) 663-7114 June 26, 2012

Joseph Sbaffoni
District Manager
Pennsylvania DEP Bureau of Deep Mine Safety
100 New Salem Road Room 167
Uniontown, PA 15401

Re: BMX - Plan for Diesel Refueling in Primary Intake Escapeway

Dear Mr. Sbaffoni,

The following plan is being submitted as a revision to our approved Plan for the refueling of diesel powered equipment in the Primary Intake escapeway as required by section 411 (a) of the State Mining Law.

Plan to Fuel Diesel Equipment in the Primary Intake Escapeway

A. Rail Mounted Diesel Fuel "Buffalo" or Self Propelled Diesel Fuel "Tanker"

- 1. An Approved Diesel Fuel "Buffalo" shall be defined as a portable rail mounted Diesel Fuel Storage unit not to exceed 500 gallons capacity that does not comply with all the requirements of Section 405 of the Pennsylvania Bituminous Coal Mine Safety Act and therefore must be attended at all times unless stored in an auxiliary facility that does meet all the requirements of Section 405.
- 2. An Approved Self Propelled Diesel Fuel "Tanker" shall be defined as a self-propelled rail mounted Diesel Fuel Storage unit not to exceed 500 gallons capacity that does not comply with all the requirements of Section 405 of the Pennsylvania Bituminous Coal Mine Safety Act and therefore must be attended at all times unless stored in an auxiliary facility that does meet all the requirements of Section 405.
- 3. A fixed location for fueling in the intake escapeway will be designated by a sign and marked on the mine map
- 4. The area where the fuel transfer will take place will be well rock dusted and the roof and ribs will be protected with a fireproof barrier.
- 5. A charged fire hose and hand held CSE foam generator or equivalent will be provided on the Intake side of the designated fuel transfer point
- 6. Prior to transporting the fuel buffalo or tanker (maximum 500 gallon capacity), a preop inspection will be conducted by a trained diesel operator to ensure the firefighting equipment is present and in good working order.
- 7. A Person assigned to transport the fuel buffalo or tanker to the fueling location in the intake escapeway will be a trained diesel equipment operator.

- 8. Rail Mounted Diesel Fuel Buffalo's and Tanker's shall not be removed from the rail while underground and transported to other entries.
- 9. The Diesel Fuel buffalo or tanker will carry a spill cleanup kit that will include all the necessary personal protective equipment as well as fuel absorbent material.
- 10. The Shift, and/or, Section Foreman during the time of fueling will be notified prior to and immediately after the completion of fueling
- 11. Prior to fueling, the fuel system i.e., hose, nozzle, etc. will be examined by the trained diesel equipment operator to assure the system is in safe working order.
- 12. One person, who is a qualified trained diesel equipment operator, will serve as a fire watch during fueling. After completion of fueling, he will conduct a visual examination for fire and fuel spillage. The designated fire watch will have the ability to communicate from the fueling location to the responsible person. They will also maintain a 20# fire extinguisher within hands reach while fueling operations are taking place.
- 13. The fueling hose shall be of one piece construction not to exceed 200 feet in length
- 14. This plan does not permit storage of the fuel buffalo or tanker in the intake escapeway
- 15. The buffalo or tanker will be continuously attended by a trained diesel operator or will be stored in an area that complies with section 405 of the Bituminous Coal Mining Laws of Pennsylvania.
- 16. The Diesel Fuel Tanker is not permitted to act as a mantrip or motor and move supply
- 17. All other requirements of the Pennsylvania Bituminous Coal Mine Safety Act shall apply.
- 18. This plan allows for the transfer of fuel in the intake escapeway provided all provisions of the plan are followed.

B. Diesel Fuel "Pod"

- An Approved Diesel Fuel Storage "Pod" shall be defined as a self-contained
 portable Diesel Fuel storage unit not to exceed 500 gallons capacity that complies
 with section 405 of the Pennsylvania Bituminous Coal Mine Safety Act and
 therefore does not need to be attended at all times when in its fixed location.
- 2. A fixed location for fueling in the intake escapeway will be designated by a sign and marked on the mine map. (Please see attached Drawing Typical for Gateroad and Mains section layout.)
- 3. Diesel Fuel pods will not be stored on Longwall retreat sections at this time.
- 4. The fixed location for Diesel fuel pods will not be in close proximity to electrical installations or battery charging stations.
- 5. All locations of Diesel Fuel Storage Pods will be examined in the preshift examination.
- 6. The area where the fuel transfer will take place will be well rock dusted and the roof and ribs will be protected with a fireproof barrier
- 7. A charged fire hose and hand held CSE foam generator or equivalent will be provided on the Intake side of the designated fuel transfer point
- 8. Prior to transporting the fuel pod (maximum 500 gallon capacity), a pre-op inspection will be conducted by a trained diesel operator to assure the firefighting equipment is present and in good working order.

- 9. A person assigned to move the "diesel fuel pod" will be a trained diesel equipment operator.
- 10. When transporting the Fuel Pod about the section the Pod will be securely fastened in a scoop bucket or duckbill. It will not be pushed or drug about the section.
- 11. When transporting the Fuel Pod about the mine the Pod will be as empty as possible and securely fastened to a supply car or Dolly. During Pod transportation the Pods will either be continuously attended or stored in a facility meeting the requirements of section 405.
- 12. The Diesel fuel pod will carry a spill cleanup kit that will include all the necessary personal protective equipment as well as fuel absorbent material
- 13. The Shift, and/or, Section Foreman during the time of fueling will be notified prior to and immediately after the completion of fueling
- 14. Prior to fueling, the fuel system i.e., hose, nozzle, etc. will be examined by the trained diesel equipment operator to assure the system is in safe working order.
- 15. One person, who is a qualified trained diesel equipment operator, will serve as a fire watch during fueling. After completion of fueling, he will conduct a visual examination for fire and fuel spillage. The designated fire watch will have the ability to communicate from the fueling location to the responsible person. They will also maintain a 20# fire extinguisher within hands reach while fueling operations are taking place.
- 16. The fueling hose shall be of one piece construction not to exceed 200 feet in length
- 17. This plan DOES permit storage of the Diesel Fuel Pod in the intake escapeway.
- 18. Diesel Fuel Pods will be refueled using Diesel Fuel Buffalo's or the Diesel Fuel Tanker. All provisions for both units performing the refueling will apply.
- 19. All other requirements of the Pennsylvania Bituminous Coal Mine Safety Act shall apply.
- 20. This plan allows for the transfer of fuel in the intake escapeway provided all provisions of the plan are followed.

If you have any questions, please call (724) 663-7114

Sincerely,

Brandon Williamson Mine Engineer, EI

Brendon William

TYPICAL MAINS SECTION SHOWING THE LOCATION OF A DIESEL FUEL POD **MIRROR IMAGE APPLIES** LOAD CENTER VENTILATION THROUGH STOPPING DIESEL **FUEL POD** LOCATION ATTACHMENT 1-4

TYPICAL GATE SECTION SHOWING THE LOCATION OF A DIESEL FUEL POD MIRROR IMAGE APPLIES LOAD CENTER VENTILATION THROUGH STOPPING DIESEL FUEL POD ATTACHMENT 1-5