

In the matter of  
Harlan-Cumberland Coal Company  
Totz Preparation Plant  
I.D. No. 15-10657

Petition for Modification  
  
Docket No. M-2007-072-C

### PROPOSED DECISION AND ORDER

On December 17, 2007, a petition was filed by Cumberland Valley Engineering, Inc. on behalf of Harlan-Cumberland Coal Company, seeking a modification of the application of 30 C.F.R § 77.214(a). Petitioner seeks to use coarse refuse pile fill No. 1 (Site I.D. No. 1211-KY7-07029-09) to backfill mine benches, mine portal openings, and a ventilation punch-out entry, totaling seven (7) abandoned mine surface openings. The seven (7) openings are on three (3) separate coal seams in which underground mining has been completed and the portals and mine opening sealed in the mid-1990s. The mine refuse disposal site will be backfilled using coarse refuse from the Harlan-Cumberland Coal Company's Totz Preparation Plant, located in Harlan County, Kentucky. The Totz plant processes coal mined from the Creech and Kellioka coal seams mined in the vicinity of the preparation plant.

Harlan-Cumberland Coal Company is petitioning for a modification of the standard to allow placement of coarse refuse over abandoned underground mine openings during the construction of Coarse Coal Refuse Fill #1. Those mines openings are for abandoned workings in the Harlan, Darby Rider, and Darby coal seams. There are no steam lines to be covered by mine refuse associated with this proposal.

Harlan-Cumberland Coal Company proposes to construct Coarse Coal Refuse Fill #1 in an unnamed watershed immediately east of the existing Turkeypen Branch Slurry Impoundment. There are abandoned underground mine openings that are located within the area where Coarse Coal Refuse Fill #1 will be constructed. There are a total of seven (7) underground mine openings that will eventually be covered by coarse refuse. There is one (1) opening in the Harlan coal seam, two (2) in the Darby coal seam, and four (4) in the Darby Rider coal seam. The location of each of these mine openings is identified on Attachment A.

The Harlan coal seam in this area was mined in the early and mid 1900s by Harlan Central Coal Company. Petitioner provided a copy of the best available underground map of the workings of this mine. Beginning in the late 1960s through the 1970s, slurry from the coal preparation plant was injected into these abandoned underground

workings. This practice was stopped in the early 1980s when it was no longer practical to continue because the voids in the mine appeared to be full.

There is one (1) underground mine opening on the Harlan seam within the area where Coarse Coal Refuse Fill #1 will be constructed. This mine opening is located in the bottom of the hollow at an elevation of 1,517 feet, approximately even with the opening on the west side of the hollow. This opening will be excavated to remove all loose material above and on both sides of the opening and to clean out any loose material that is located in the opening itself. As this opening is located in the bottom of the hollow, the durable rock under-drain that will be constructed for Coarse Refuse Fill #1 will be extended to this opening.

The extension of the under-drain into the Harlan seam opening will be the same size and configuration with the same construction specifications as the main underdrain at this location. Such specifications include a 6-inch diameter HMWP pipe that will extend from the toe of the coarse refuse fill into the opening. It is proposed to fill the opening with durable, well-graded sandstone rock to a depth of 10 feet or more. Typical drawings detailing the extension of the durable rock under-drain that will be constructed for Coarse Refuse Fill #1 to the Harlan seam opening are provided in this petition.

The remaining mine openings are located in the Darby and Darby Rider coal seams. These seams were mined from the mid-1970s through the mid-1990s. Initial mining was conducted in the Darby Rider coal seam. This mining was initiated from a site to the east of the Turkeypen Branch Slurry Impoundment and mined through the Turkeypen Branch watershed, the West Hollow watershed, the watershed where Coarse Coal Refuse Fill #1 is located, the Chumney Branch watershed, and into the Double Hollow watershed. There are several mine openings associated with this mine. There are, however, only four (4) openings in the Darby Rider coal seam in the area where Coarse Coal Refuse Fill #1 will be located. Three (3) of the openings are located on the east side of the slope above the bottom of the hollow and above the openings in the Darby coal seam. The eastside Darby Rider openings are located at an elevation of approximately 1,676 feet. The fourth Darby Rider opening is located on the west side of the hollow above the bottom of the hollow. This westside opening is located at an elevation of approximately 1,652 feet.

After mining in the Darby Rider seam was completed, a slope was constructed inside of the workings down from the Darby Rider coal seam to the Darby coal seam. Underground mining of the Darby seam extended from the Chumney Branch watershed east to the Double Hollow watershed. There are several mine openings associated with this mine; however, there are only two (2) openings in the Darby seam

where Coarse Coal Refuse Fill #1 will be located. Both of the Darby coal seam openings are located up on the east side of the slope above the bottom of the hollow. These openings are located near each other and are at an elevation of approximately 1,652 feet.

On September 21-22, 1994, there was a breakthrough of slurry from the Turkeypen Branch Slurry Impoundment into the workings of the Darby Rider coal seam, inundating these workings. Since these workings were interconnected with the workings in the Darby coal seam, the workings of the Darby coal seam were inundated also. Because of the inundation, these mines were shut down, reclaimed, and abandoned.

All of the mine openings in both the Darby and Darby Rider seams were plugged and sealed during reclamation operations when the mines were abandoned. The Petitioner concludes that due to the location of these openings and the dip of the coal seam to the south in this area, it is preferable to leave the openings sealed. The petitioner alleges that it will not be necessary or required to excavate or install drains in these openings. Drawings detailing the construction methods used to seal the openings are provided in the petition.

The Petitioner alleges that the alternative method outlined in the petition will at all times guarantees no less than the same measure of protection afforded by the standard.

MSHA personnel conducted an investigation of the petition and filed a report of their findings and recommendations with the Administrator for Coal Mine Safety and Health. After a careful review of the entire record, including the petition, and MSHA's investigative report and recommendations, this Proposed Decision and Order is issued.

#### Findings of Fact and Conclusion of Law

The applicable standard, 30 C.F.R. § 77.214, Refuse piles, states:

- (a) Refuse piles constructed on or after July 1, 1971, shall be located in areas which are a safe distance from all underground mine airshafts, preparation plants, tipples, or other surface installations and such piles shall not be located over abandoned openings or steamlines.

The petitioner requested the standard be modified to allow the disposal of mine refuse as backfill of the portal area and ventilation punch-outs of the now-abandoned and sealed underground mines on the Harlan, Darby, and Darby Rider coal seams. This disposal site is to be a refuse pile constructed over abandoned mine openings that have been properly sealed, with an appropriately sized drain through the lowest seal and

continued through a compacted fill. The fill material is to be scalped rock from mine refuse, placed and compacted over the mine openings.

MSHA's petition investigator confirmed the basic facts about the locations of the existing abandoned mine openings and the proposed refuse pile construction. However, the petitioner did not provide documentation as to the slope of the mine workings or strike and dip of the coal seam and the locations of interconnection of mine workings in support of the allegation that none of the mine openings needed permanent drains because underground mining of the Darby seam extended from the Chumney Branch watershed east to the Double Hollow watershed. Cumberland Valley Engineering, Inc. was contacted by MSHA and on April 22, 2008, the company electronically submitted supplemental information in the form of abandoned mine maps, overlays, and detail drawings of the Harlan mine workings' drainage system in the Double Hollow watershed.

The petitioner plugged and sealed the Harlan seam mine opening with non-combustible material, placed in mine opening for at least ten feet and extending vertically to at least four feet above the exposed coal seam; this task was accomplished and photographed prior to MSHA's investigation. In addition, the Harlan seam mine opening was provided with a six-inch HMWP drainage pipe that extends from inside the mine opening plug, through a fabric-wrapped, durable rock drain installed in the base of the refuse pile for the entire length of the hollow fill.

The petitioner has no records of the specific methods used in plugging and sealing the remaining six (6) mine openings, located several hundred feet higher in elevation in the Darby and Darby Rider coal seams, which will not be covered for several years. After discussions with MSHA, the Petitioner's engineering service agreed that those six (6) locations would be cleaned and resealed in accordance with the terms and conditions of this proposed decision and order before they are covered with refuse. The drainage of the mine workings on all three seams to the Harlan coal seam discharge point in the Double Hollow watershed shall be maintained in perpetuity.

The alternative method proposed by the petitioner (as amended by MSHA) will at all time guarantees no less than the same measure of protection afforded the miners under 30 C.F.R § 77.214(a).

On the basis of the petition and the findings of MSHA's investigation, Harlan-Cumberland Coal Company is granted a modification of the application of 30 C.F.R § 77.214(a) to allow placement of backfill material and coarse refuse on refuse pile fill No. 1 (Site I.D. No. 1211-KY7-07029-09) to cover seven (7) abandoned mine openings of abandoned mine workings on the Harlan, Darby, and Darby Rider Seams.

Order

Wherefore, pursuant to the authority delegated by the Secretary of Labor to the Administrator for Coal Mine Safety and Health, and pursuant to Section 101(c), of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 811(c), it is ordered that Cumberland Valley Engineering, Inc.'s Petition for Modification of the application of 30 C.F.R § 77.214(a) at the Harlan-Cumberland Coal Company's Totz Preparation Plant is hereby:

GRANTED, to allow placement of backfill material and coarse refuse at site I.D. No. 1211-KY7-07029-09 to cover five (5) sealed portal drift openings and two (2) ventilation punch-out openings of the permanently abandoned mine workings of the Harlan, Darby, and Darby Rider seams, conditioned upon full compliance by the petitioner with the following terms and conditions:

1. In order to allow placement of backfill material for sealing, all sloughed overburden material and undocumented backfill material shall be removed from the previously "backfilled and reclaimed mine benches" for at least 12 feet in front of and to either side of the six (6) mine openings: three (3) portals on the Darby Rider seam on the west side of the hollow, two (2) portals on the Darby seam, and one (1) ventilation punch-out opening on the Darby Rider seam on the west side of the hollow.
2. None of the six (6) mine openings is anticipated to discharge water when the benches are cleaned as required in Item 1. However, should the drainage to the Double Hollow discharge on the Harlan seam prove inadequate, provisions for the permanent handling of any mine drainage are required. Polyethylene pipe of appropriate size and rating shall be installed in any entry or the lowest elevation entry in any portal set that is found to discharge water; the pipe shall extend beyond the fill limits.
3. The first 25 feet whenever possible, but not less than 10 feet of the pipe in Item 2 shall be in the underground entry where it is to be backfilled with non-acid-producing soil. Perforated standpipes shall be installed to ensure the pipe inlets are not blocked or covered by sloughing fill, roof, or material. In addition, shorter standpipes with animal guards shall be installed to ensure the drainpipes remain full of water and the wet mine seal is maintained.

4. A separate rock under-drain shall be constructed along the front of the portal areas and extended beyond the fill limits. The rock under-drain shall be constructed using durable sandstone that will not dissolve or break down. The sandstone used in under-drains shall have an SDI of 95% or greater and at least 90% of the material shall be in the size range of 12 inches to 24 inches in diameter. The under-drain shall be wrapped in Mirafi 700FW filter fabric or equivalent and shall extend into the mine opening used to insure mine drainage.
5. Mine bench backfill material shall be impervious, non-combustible and must contain enough fine material to ensure an airtight seal as it is placed in 12-inch lifts but not more than 2-foot lifts compacted to at least 90% Proctor dry density.
6. The backfill material shall be placed in the exposed portal areas:
  - (a) to a minimum thickness of 4 feet above the seal drift openings;
  - (b) to 4 feet above any visible cracks in the exposed highwall; and
  - (c) to at least 4 feet over and above any part of this and any other exposed coal seams.
7. The backfill material shall ensure an airtight seal for the coal seam prior to the placement of any scalp rock or coal mine refuse rock over the backfill area. The placement of backfill material shall conform to the plan drawings and not exceed 1:1 slope (horizontal: vertical) or 1.3 static safety factor for the mine opening backfill.
8. The slope of the coal refuse place over mine bench backfill material may vary from 4:1 (H:V) to 2:1 (H:V) but must conform to the requirements of 30 C.F.R. § 77.215. Placement of topsoil over the refuse and re-vegetation shall be done in accordance with Kentucky reclamation permits.

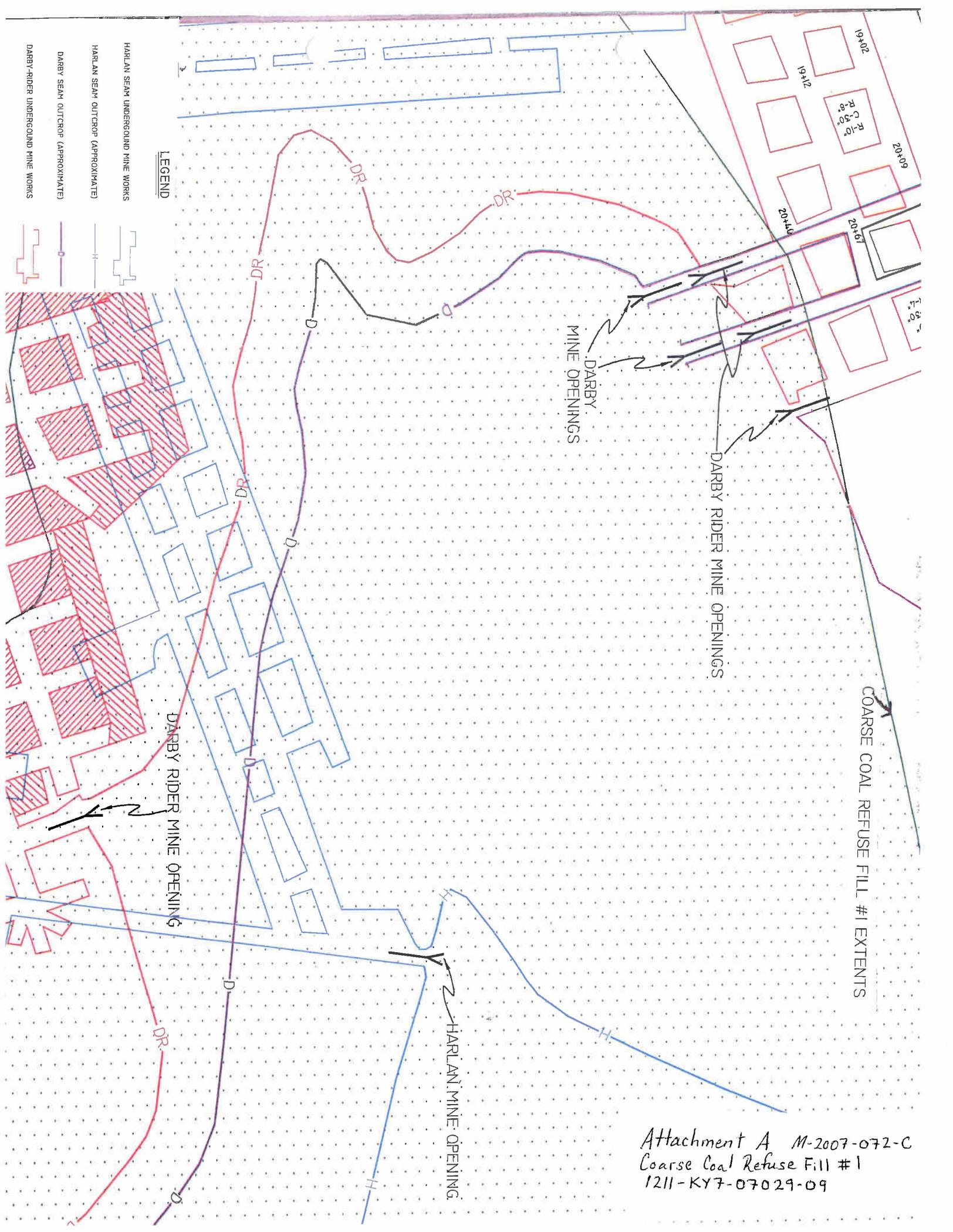
Any party to this action desiring a hearing on this matter must file in accordance with 30 C.F.R § 44.14, as within 30 days. The request for hearing must be filed with the Administrator for Coal Mine Safety and Health, 1100 Wilson Boulevard, Arlington, Virginia 22209-3939. If a hearing is requested, the request shall contain a concise summary of position on the issues of fact or law desired to be raised by the party requesting the hearing, including specific objections to the proposed decision.

A party other than Petitioner who has requested a hearing may also comment upon all issues of fact or law presented in the petition, and any party to this action requesting a hearing may indicate a desired hearing site. If no request for a hearing is filed within 30 days after service thereof, the Order will become final and must be posted by the operator on the mine bulletin board at the mine.

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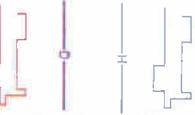
Kenneth A. Murray  
Deputy Administrator for  
Coal Mine Safety and Health

Attachment: Attachment A



**LEGEND**

- HARLAN SEAM UNDERGROUND MINE WORKS
- HARLAN SEAM OUTCROP (APPROXIMATE)
- DARBY SEAM OUTCROP (APPROXIMATE)
- DARBY-RIDER UNDERGROUND MINE WORKS



DARBY MINE OPENINGS

DARBY RIDER MINE OPENINGS

DARBY RIDER MINE OPENING

HARLAN MINE OPENING

COARSE COAL REFUSE FILL #1 EXTENTS

Attachment A M-2007-072-C  
 Coarse Coal Refuse Fill #1  
 1211-KY7-07029-09