Mine Safety and Health Administration

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Petition - Docket No. M-2020-005-C

COMPLIANCE & ENFORCEMENT ✓

REGULATIONS V

April 8, 2021 In the matter of:

from anyone.

MSHA.

produced.

(minimum 0.5% expansion upon setting) cement and contain no voids.

due to geological strata, or due to the pressure within the well.

due to the pressure within the well.

inserted to this depth.

by subsidence, caving, or other factors.

ripping or perforating multiple strings.

operator and the District Manager shall discuss the nature of each hole.

a well in order to provide an opportunity to have representatives present.

suppression shall be examined and any deficiencies corrected.

s. A copy of this Order shall be maintained at the mine and be available to the miners.

followed to provide the upmost protection to the miners involved in the process.

I hereby certify that a copy of this proposed decision was served personally or mailed,

postage prepaid, or provided by other electronic means this 8th day of April 2021, to:

cc: Eugene White, Director Office of Miners' Health Safety & Training #7 Players Club Dr. Suite 2, Charleston WV 25311

C.F.R. § 75.1700, should those coal seams be developed in the future.

until the plugging or re-plugging has been completed.

to the proposed decision.

at the mine.

Timothy R. Watkins

Certificate of Service

Mr. Barrett Justice

111 Affinity Complex

Don Braenovich

Road Sophia, WV 25878

Safety and Health Specialist

<u>Eugene.E.White@wv.gov</u>

Senior Director of Engineering

Pocahontas Coal Company LLC

Mine Safety and Health Enforcement

Administrator for

3. MANDATORY PROCEDURES WHEN MINING WITHIN A 100-FOOT DIAMETER BARRIER AROUND WELL

circumstance related to the condition of the well or surrounding strata when such conditions are encountered.

be more than 50 feet from the well. When using longwall mining methods, distance markers shall be installed on

5-foot centers for a distance of 50 feet in advance of the well in the headgate entry and in the tailgate entry.

all intercepted voids.

alternative methods.

torches.

valves, shut-in valves, sampling ports, flame arrestor equipment, and security fencing.

SAFETY & HEALTH 💙

Petition for Modification Pocahontas Coal Company LLC Affinity Mine Docket No. M-2020-005-C

I.D. No. 46-08878 PROPOSED DECISION AND ORDER

C.F.R. § 75.1700 to Pocahontas Coal Company LLC's Affinity Mine located in Raleigh County, West Virginia. The Petitioner filed the petition to permit an alternative method of compliance with the

On February 10, 2020, a petition was filed seeking a modification of the application of 30

standard with respect to vertical oil and gas wells into the underground coal seams. The Petitioner alleges that the proposed alternative method will at all times guarantee no less than the same measure of protection afforded miners under 30 C.F.R. § 75.1700 as that provided by the standard, which states: § 75.1700 Oil and gas wells. Each operator of a coal mine shall take reasonable measures to locate oil and gas wells penetrating coalbeds or any underground area of a coal mine. When located, such operator shall establish and maintain barriers around such oil and gas wells in accordance with State laws and regulations, except that such barriers shall not be less than 300 feet in diameter, unless the Secretary or his authorized representative permits a lesser barrier consistent with the applicable State laws and regulations where such lesser barrier will be adequate to protect against hazards from such wells to

NEWS & UPDATES >

the miners in such mine, or unless the Secretary or his authorized representative requires a greater barrier where the depth of the mine, other geologic conditions, or other factors warrant such a greater barrier. The petition addresses items for which District Manager approval is required, procedures for cleaning out and preparing oil and gas wells prior to plugging or re- plugging, procedures for plugging or re-plugging oil or gas wells to the surface, procedures for plugging or re-plugging oil or gas wells for use as degasification boreholes, alternative procedures for preparing and plugging or replugging oil or gas wells, and procedures after approval has been granted to mine through a plugged or re- plugged well.

On June 10, 2020, MSHA personnel conducted an investigation of the petition and filed a report of their findings with the Administrator for Mine Safety and Health Enforcement. The miners at Affinity Mine are not represented by a labor union. After a careful review of the entire record, including the petition and MSHA's investigative report this Proposed Decision and Order

is issued.

FINDINGS OF FACT AND CONCLUSIONS OF LAW Mr. Tom Jones, Chief Engineer for Pocahontas Coal Company LLC indicated the main purpose for the proposed 101(c) Petition for Modification seeking to modify the application of 30 CFR 75.1700, is to improve the ventilation throughout the mine currently restricted by two conventional (shallow, vertical) gas wells interfering with mine projections. Petitioner proposes to plug and mine

through these two gas wells. Additional gas wells that interfere with mine projections may be identified in the future. The two gas wells in question are located near/within the proposed projections associated with additional ventilation and supply/man shafts to be developed in the future. The mine is located in Raleigh County on Soak Creek and Laurel Branch of Piney Creek of New River of Kanawha River near Midway, West Virginia. The mine was originally started by Eastern Associated Coal Company in 1972 and closed in 1985. Pocahontas Coal Company LLC, reopened the mine in December 2010. The coal seam being mined is the Pocahontas #3 seam with a predicted

(1) intake, two (2) return, and one (1) supply /man shaft. The slope is used to transport coal out of the mine via a belt line. The operation consists of three (3) super-sections operating 2 shifts per day, 5 days per week on day and evening shifts. They also have one maintenance crew operating 5 days per week on the midnight shift. All shifts are scheduled for 9 hours. The mine currently employs 230 underground employees and 23 surface employees. The mine currently has 84 gas wells identified within the current mining limits. Of the 84 gas wells, 57 are active and 27 are abandoned. 77 of the gas wells have been surveyed/located in relation to the mine's coordinate system. The 7 wells remaining to be surveyed/located are not within the 5 year projections, but are scheduled to be surveyed/located before mining in their vicinity. The operator is not aware of any oil wells located within the current mining limits.

coal reserve height of 48 - 54 inches while the predicted mining height for the reserve is 60 - 66 inches. The mine has four (4) shafts and one (1) slope at the portal. The shafts are comprised of one

The producing natural gas formations for this area are located in the Ravencliff sandstone formation, Maxton sandstone formation, Big Lime limestone formation, and the Big Injun sandstone formation. The depth of the formations range from approximately 1200 feet deep (Ravencliff) down to approximately 3100 feet deep (Big Injun), which is approximately 300 feet to 2200 feet below the Pocahontas #3 coal seam. The mine operator is not aware of any natural gas and/or condensate produced and/or flared from this reservoir or any sour gas (hydrogen sulfide, H2S) encountered in any well. Also, the mine operator does not have any knowledge of the typical flow rates and pressures of the natural gas produced. Likewise, the mine operator does not have any of the wells

in this area. In addition to the Pocahontas #3 coal seam, the Pocahontas #4 coal seam, and the Beckley coal seam have been mined or are mineable above within the mine's reserve. There is no known mining or mineable coal seams identified below the Pocahontas #3 coal seam. The Pocahontas #4 coal seam is approximately 140 feet above the Pocahontas #3 coal seam and has been mined in areas overlying the mine workings/mine reserves. All of the mine workings in the

abandonment pressures or the recharge potential of the reservoir. According to the mine operator, there are no known unconsolidated formations, karstic formations and/or lost circulation zones

workings/mine reserves. All of the mine workings in the Beckley Coal Seam are abandoned. All of the mines located above in which the wells penetrate their coal seams are abandoned. Additional investigation meetings were conducted on June 10, 2020, to discuss the proposed petition with the employees of the mine. Meetings were held with the day shift crew employees and the evening shift crew employees discussing the proposed petition with them. The day shift crew employee meetings were held at three (3) separate times, since they have staggered starting times due to COVID-19, as were the evening shift crew employee meetings. The proposed petition was reviewed with both hourly and salaried employees and no questions or comments were received

Pocahontas #4 coal seam are abandoned. The Beckley Coal Seam is located approximately 370 feet above the Pocahontas #3 coal seam and has been mined in areas overlying the mine

The miners at the Affinity Mine are not represented by a labor union; and do not have a miner's representative.

inadequate depths for convenience or to lower costs, which may result in reduced safety for miners.

this proposed decision and order have proven safe and effective when properly implemented.

ensuring all gas producing zones have been effectively sealed.

GRANTED, subject to the following terms and conditions:

This PDO addresses these concerns as they affect the Affinity Mine. There are several differences between the petitioner's proposal and the amended terms and conditions set forth by MSHA. The essential changes include: 1. Making a diligent effort to clean out the well bore to the original total depth. MSHA believes that cleaning wells to the original total depth provides miners with a higher degree of safety by

Although MSHA has granted modifications of this standard at different mines over the years, changing circumstances in oil and gas drilling technology and practices compels MSHA to reconsider

the safest approach to mining around or through such wells. In recent years, changes in hydraulic fracturing (fracking) technology, marketplace and resource conditions have led to an increase in

the number and depth of oil and gas wells penetrating the Pittsburgh and other coal seams. Since deeper wells are usually associated with higher well pressures, modifications of § 75.1700 must

include appropriate measures to better protect miners. In addition to the risks associated with higher well pressures, MSHA is concerned that operators may be preparing and plugging wells to

2. Unknown total depth: If the total depth of the well is unknown the operator must contact the District Manager before proceeding. MSHA believes, by including this step in the process, that miner safety will be better served because the petitioner and the District Manager can work together to evaluate the conditions of the well to be plugged as well as the safest way to accomplish the plugging.

The terms and conditions required by MSHA will prepare these wells for safe intersection by making a diligent effort to clean the wells to the original total depth, removing all casing and plugging

to the total depth by pumping expanding cement slurry and pressurizing to at least 200 psi. If the total depth cannot be reached and casing cannot be removed, the alternative methods included in

Therefore, the terms and conditions as amended by MSHA will at all times guarantee no less than the same measure of protection afforded the miners under 30 CFR 75.1700 for wells at least 2,000 to 4,000 feet or greater in depth. On the basis of the petition, comments received, and the findings of MSHA's investigation, Pocahontas Coal Company LLC is granted a modification of the application of 30 C.F.R. § 75.1700 to its Affinity Mine. ORDER

Under the authority delegated by the Secretary of Labor to the Administrator for Mine Safety and Health Enforcement, and under § 101(c) of the Federal Mine Safety and Health Act of 1977, 30

U.S.C. § 811(c), and 30 C.F.R. Part 44, a modification of the application of 30 C.F.R. § 75.1700 at Pocahontas Coal Company LLC's Affinity Mine is hereby:

reduction is reasonable, he will provide his approval, and the mine operator may then mine within the safety barrier of the well.

a. MANDATORY PROCEDURES FOR CLEANING OUT AND PREPARING VERTICAL OIL AND GAS WELLS PRIOR TO PLUGGING OR RE- PLUGGING

1. DISTRICT MANAGER APPROVAL REQUIRED a. The type of oil or gas well that will be considered under this Petition includes wells that have been depleted of oil or gas production or have not produced oil or gas and may have been plugged, or active conventional vertical wells which are not producing gas or oil, subject to the provisions below. Unconventional wells in the Marcellus, Utica, and all other unconventional shale oil and gas wells are not subject to this modification. Nothing in these provisions is meant to lessen, diminish, or substitute any provision found in applicable state laws or regulations. b. A safety barrier of 300 feet in diameter (150 feet between any mined area and a well) shall be maintained around all oil and gas wells (defined herein to include all active, inactive, abandoned,

shut-in, previously plugged wells, water injection wells, and carbon dioxide sequestration wells) until approval to proceed with mining has been obtained from the District Manager. Wells that were

drilled into potential oil or gas producing formations that did not produce commercial quantities of either gas or oil (exploratory wells, wildcat wells or dry holes) are classified as oil or gas wells by

c. Prior to mining within the safety barrier around any well that the mine plans to intersect, the mine operator shall provide to the District Manager a sworn affidavit or declaration executed by a

company official stating that all mandatory procedures for cleaning out, preparing, and plugging each gas or oil well have been completed as described by the terms and conditions of this order.

If well intersection is not planned, the mine operator may request a permit to reduce the 300 foot diameter of the safety barrier that does not include intersection of the well. The District Manager

may require documents and information that help verify the accuracy of the location of the well in respect to the mine maps and mining projections. This information may include survey closure

data, down-hole well deviation logs, historical well intersection location data and any additional data required by the District Manager. If the District Manager determines that the proposed barrier

d. In the event an uncharted well is inadvertently mined into, mining shall cease immediately on the section, electrical power shall be deenergized in the affected area, and MSHA shall be notified

be an open connection from the mine to the surface that presents a hazard to the mine and the environment. The District will respond with a timely investigation, issue a K Order if needed, and

immediately via the emergency phone number posted on MSHA's website for reporting of this hazardous condition. In addition to its potential for liberating methane, the well may also

The affidavit or declaration must be accompanied by all logs described in subparagraphs 2(a)(2) and 2(a)(3) below and any other records described in those subparagraphs which the District Manager may request. The District Manager will review the affidavit or declaration, the logs and any other records that have been requested, and may inspect the well itself, and will then determine if the operator has complied with the procedures for cleaning out, preparing, and plugging each well as described by the terms and conditions of this Order. If the District Manager determines that the procedures have been complied with, he will provide his approval, and the mine operator may then mine within the safety barrier of the well, subject to the terms of this Order.

allow resumption of mining once a suitable action plan is in place. e. The terms and conditions of this Order apply to all types of underground coal mining. 2. MANDATORY PROCEDURES FOR CLEANING OUT, PREPARING, PLUGGING, AND RE-PLUGGING OIL OR GAS WELLS

(1) A diligent effort shall be made to clean the well to the original total depth. The mine operator shall contact the District Manager prior to stopping the operation to pull casing or clean out the total depth of the well. If this depth cannot be reached, and the total depth of the well is less than 4,000 feet, the operator shall completely clean out the well from the surface to at least 200 feet below the base of the

lowest mineable coal seam, unless the District Manager requires cleaning to a greater depth based on his judgment as to what is required due to the geological strata, or due to the pressure within

(2) The operator shall prepare down-hole logs for each well. Logs shall consist of a caliper survey, a gamma log, a bond log and a deviation survey for determining the top, bottom, and thickness of

describing the depth of each material encountered; the nature of each material encountered; bit size and type used to drill each portion of the hole; length and type of each material used to plug

the well; length of casing(s) removed, perforated or ripped or left in place; any sections where casing was cut or milled; and other pertinent information concerning cleaning and sealing the well.

The mine operator shall test for gas emissions inside the hole before cleaning out, preparing, plugging, and re-plugging oil and gas wells. The District Manager shall be contacted if gas is being

the well. The operator shall provide the District Manager with all information it possesses concerning the geological nature of the strata and the pressure of the well. If the total depth of the well is 4,000 feet, or greater, the operator shall completely clean out the well from the surface to at least 400 feet below the base of the lowest mineable coal seam. Wells of this greater depth are under greater pressure, so the 400 feet requirement provides greater protection for miners. The operator shall remove all material from the entire diameter of the well, wall to wall. If the total depth of the well is unknown and there is no historical information, the mine operator must contact the District Manager before proceeding.

all coal seams down to the lowest minable coal seam, potential hydrocarbon producing strata and the location of any existing bridge plug. In addition, a journal shall be maintained

Invoices, work-orders, and other records relating to all work on the well shall be maintained as part of this journal and provided to MSHA upon request. (3) When cleaning out the well as provided for in subparagraph (a)(1), the operator shall make a diligent effort to remove all of the casing in the well. After the well is completely cleaned out and all the casing removed, the well should be plugged to the total depth by pumping expanding cement slurry and pressurizing to at least 200 psi. If the casing cannot be removed, it must be cut, milled, perforated or ripped at all mineable coal seam levels to facilitate the removal of any remaining casing in the coal seam by the mining equipment. Any casing which remains shall be perforated or ripped to permit the injection of cement into voids within and around the well. All casing remaining at mineable coal seam levels shall be perforated or ripped at least every 5 feet from 10 feet below the coal seam to 10 feet above the coal seam.

Perforations or rips are required at least every 50 feet from 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam up to 100 feet above the

uppermost mineable coal seam. See Appendix A. The mine operator must take appropriate steps to ensure that the annulus between the casing and the well walls are filled with expanding

If it is not possible to remove all of the casing, the operator shall notify the District Manager before any other work is performed. If the well cannot be cleaned out or the casing removed, the

operator shall prepare the well as described from the surface to at least 200 feet below the base of the lowest mineable coal seam for wells less than 4000 feet in depth and 400 feet below the

lowest mineable coal seam for wells 4000 feet or greater, unless the District Manager requires cleaning out and removal of casing to a greater depth based on his judgement as to what is required

If the operator, using a casing bond log can demonstrate to the satisfaction of the District Manager that all annuli in the well are already adequately sealed with cement, then the operator will not be required to perforate or rip the casing for that particular well. When multiple casing and tubing strings are present in the coal horizon(s), any casing which remains shall be ripped or perforated and filled with expanding cement as indicated above. An acceptable casing bond log for each casing and tubing string is needed if used in lieu of ripping or perforating multiple strings.

(4) If the District Manager concludes that the completely cleaned-out well is emitting excessive amounts of gas, the operator must place a mechanical bridge plug in the well. It must be placed in a

producing stratum, unless the District Manager requires a greater distance based on his judgment that it is required due to the geological strata, or due to the pressure within the well. The operator

shall provide the District Manager with all information it possesses concerning the geological nature of the strata and the pressure of the well. If it is not possible to set a mechanical bridge plug, an

competent stratum at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam, but above the top of the uppermost hydrocarbon-

(5) If the upper-most hydrocarbon-producing stratum is within 300 feet of the base of the lowest minable coal seam, the operator shall properly place mechanical bridge plugs as described in

appropriately sized packer may be used. The mine operator shall document what has been done to "kill the well" and plug the carbon producing strata.

After completely cleaning out the well as specified in paragraph 2(a) above, the following procedures shall be used to plug or re-plug wells:

on his judgment that a higher distance is required due to the geological strata, or due to the pressure within the well) to the surface.

the surface. The expanding cement will be placed in the well under a pressure of at least 200 pounds per square inch.

subparagraph (a)(4) to isolate the hydrocarbon- producing stratum from the expanding cement plug. Nevertheless, the operator shall place a minimum of 200 feet (400 feet if the total well depth is 4,000 feet or greater) of expanding cement below the lowest mineable coal seam, unless the District Manager requires a greater distance based on his judgment that it is required due to the geological strata, or due to the pressure within the well. b. MANDATORY PROCEDURES FOR PLUGGING OR RE-PLUGGING OIL OR GAS WELLS TO THE SURFACE

(1) The operator shall pump expanding cement slurry down the well to form a plug which runs from at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the

lowest mineable coal seam (or lower if required by the District Manager based on his judgment that a lower depth is required due to the geological strata, or due to the pressure within the well) to

Portland cement or a lightweight cement mixture may be used to fill the area from 100 feet above the top of the uppermost mineable coal seam (or higher if required by the District Manager based

(2) The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 4-inch or larger diameter casing, set in cement, shall extend at least 36 inches above the ground level with the API well number engraved or welded on the casing. When the hole cannot be marked with a physical monument (e.g. prime farmland), high-resolution GPS coordinates (one-half meter resolution) are required. c. MANDATORY PROCEDURES FOR PLUGGING OR RE-PLUGGING OIL AND GAS WELLS FOR USE AS DEGASIFICATION WELLS After completely cleaning out the well as specified in paragraph 2(a) above, the following procedures shall be utilized when plugging or re-plugging wells that are to be used as degasification wells:

(1) The operator shall set a cement plug in the well by pumping an expanding cement slurry down the tubing to provide at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) of

expanding cement below the lowest mineable coal seam, unless the District Manager requires a greater depth based on his judgment that a greater depth is required due to the geological strata, or

due to the pressure within the well. The expanding cement will be placed in the well under a pressure of at least 200 pounds per square inch. The top of the expanding cement shall extend at least

50 feet above the top of the coal seam being mined, unless the District Manager requires a greater distance based on his judgment that a greater distance is required due to the geological strata, or

(2) The operator shall securely grout into the bedrock of the upper portion of the degasification well a suitable casing in order to protect it. The remainder of this well may be cased or uncased.

(3) The operator shall fit the top of the degasification casing with a wellhead equipped as required by the District Manager in the approved ventilation plan. Such equipment may include check

that may be extracted. 10 (5) After the area of the coal mine that is degassed by a well is sealed or the coal mine is abandoned, the operator must plug all degasification wells using the following procedures: (i) The operator shall insert a tube to the bottom of the well or, if not possible, to within 100 feet above the coal seam being mined. Any blockage must be removed to ensure that the tube can be

(iii) The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative,

The following provisions apply to all wells which the operator determines, and with which the MSHA District Manager agrees, cannot be completely cleaned out due to damage to the well caused

(ii) The operator shall set a cement plug in the well by pumping Portland cement or a lightweight cement mixture down the tubing until the well is filled to the surface.

a 4-inch or larger casing, set in cement, shall extend at least 36 inches above the ground level with the API well number engraved or welded on the casing.

d. MANDATORY ALTERNATIVE PROCEDURES FOR PREPARING AND PLUGGING OR RE-PLUGGING OIL OR GAS WELLS

rather than the well if the condition of the well makes it impractical to insert the equipment necessary to obtain the log.

(4) Operation of the degasification well shall be addressed in the approved ventilation plan. This may include periodic tests of methane levels and limits on the minimum methane concentrations

(1) The operator shall drill a hole adjacent and parallel to the well, to a depth of at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the lowest mineable coal seam, unless the District Manager requires a greater depth based on his judgment that a greater depth is required due to the geological strata, or due to the pressure within the well. (2) The operator shall use a geophysical sensing device to locate any casing which may remain in the well. (3) If the well contains casing(s), the operator shall drill into the well from the parallel hole. From 10 feet below the coal seam to 10 feet above the coal seam, the operator shall perforate or rip all casings at least every 5 feet. Beyond this distance, the operator shall perforate or rip at least every 50 feet from at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam up to 100 feet above the seam being mined, unless the District Manager requires a greater distance based on his judgment that a greater distance is required due to the geological strata, or due to the pressure within the well. The diagram shown in Appendix A is representative of the locations of the perforations or ripping that must be done.

The operator shall fill the annulus between the casings and between the casings and the well wall with expanding (minimum 0.5% expansion upon setting) cement, and shall ensure that these

operator will not be required to perforate or rip the casing for that particular well, or fill these areas with cement. When multiple casing and tubing strings are present in the coal horizon(s), any

(4) Where the operator determines, and the District Manager agrees, that there is insufficient casing in the well to allow the method outlined in subparagraph (d)(3) to be used, then the operator

mineable coal seam to a point at least 50 feet above the seam being mined, the operator shall fracture in at least six places at intervals to be agreed upon by the operator and the District Manager

after considering the geological strata and the pressure within the well. The operator shall then pump expanding cement into the fractured well in sufficient quantities and in a manner which fills

(5) The operator shall prepare down-hole logs for each well. Logs shall consist of a caliper survey, a gamma log, a bond log and a deviation survey for determining the top, bottom, and thickness of

all coal seams down to the lowest minable coal seam, potential hydrocarbon producing strata and the location of any existing bridge plug. The operator may obtain the logs from the adjacent hole

shall use a horizontal hydraulic fracturing technique to intercept the original well. From at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest

areas contain no voids. If the operator, using a casing bond log, can demonstrate to the satisfaction of the District Manager that the annulus of the well is adequately sealed with cement, then the

casing which remains shall be ripped or perforated and filled with expanding cement as indicated above. An acceptable casing bond log for each casing and tubing string is needed if used in lieu of

type of each material used to plug the well; length of casing(s) removed, perforated or ripped or left in place; any sections where casing was cut or milled; and other pertinent information concerning sealing the well. Invoices, work-orders, and other records relating to all work on the well shall be maintained as part of this journal and provided to MSHA upon request. (7) After the operator has plugged the well as described in subparagraphs (d)(3) and/or (d)(4), the operator shall plug the adjacent hole, from the bottom to the surface, with Portland cement or a lightweight cement mixture. The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 4-inch or larger casing, set in cement, shall extend at least 36 inches above the ground level.

A combination of the methods outlined in subparagraphs (d)(3) and (d)(4) may have to be used in a single well, depending upon the conditions of the hole and the presence of casings. The

The District Manager may require that more than one method be utilized. The mine operator may submit an alternative plan to the District Manager for approval to use different methods to

address wells that cannot be completely cleaned out. The District Manager may require additional documentation and certification by a registered petroleum engineer to support the proposed

a. A representative of the operator, a representative of the miners, the appropriate State agency, or the MSHA District Manager may request that a conference be conducted prior to intersecting any

plugged or re-plugged well. Upon receipt of any such request, the District Manager shall schedule such a conference. The party requesting the conference shall notify all other parties listed above

within a reasonable time prior to the conference to provide opportunity for participation. The purpose of the conference shall be to review, evaluate, and accommodate any abnormal or unusual

b. The operator shall intersect a well on a shift approved by the District Manager. The operator shall notify the District Manager and the miners' representative in sufficient time prior to intersecting

c. When using continuous mining methods, the operator shall install drivage sights at the last open crosscut near the place to be mined to ensure intersection of the well. The drivage sites shall not

d. The operator shall ensure that fire-fighting equipment including fire extinguishers, rock dust, and sufficient fire hose to reach the working face area of the well intersection (when either the

f. On the shift prior to intersecting the well, the operator shall service all equipment and check it for permissibility. Water sprays, water pressures, and water flow rates used for dust and spark

h. When mining is in progress, the operator shall perform tests for methane with a handheld methane detector at least every 10 minutes from the time that mining with the continuous mining

machine or longwall face is within 30 feet of the well until the well is intersected. During the actual cutting process, no individual shall be allowed on the return side until the well intersection has

been completed, and the area has been examined and declared safe. All workplace examinations on the return side of the shearer will be conducted while the shearer is idle. The operator's most

i. When using continuous or conventional mining methods, the working place shall be free from accumulations of coal dust and coal spillages, and rock dust shall be placed on the roof, rib, and

l. If the casing is cut or milled at the coal seam level, the use of torches should not be necessary. However, in rare instances, torches may be used for inadequately or inaccurately cut or milled

exposed to flames and sparks from the torch. The operator shall apply a thick layer of rock dust to the roof, face, floor, ribs and any exposed coal within 20 feet of the casing prior to the use of

floor to within 20 feet of the face when intersecting the well. On longwall sections, rock dusting shall be conducted and placed on the roof, rib, and floor up to both the headgate and tailgate gob.

k. After a well has been intersected and the working place determined to be safe, mining shall continue inby the well a sufficient distance to permit adequate ventilation around the area of the well.

casings. No open flame shall be permitted in the area until adequate ventilation has been established around the well bore and methane levels of less than 1.0% are present in all areas that will be

g. The operator shall calibrate the methane monitor(s) on the longwall, continuous mining machine, or cutting machine and loading machine on the shift prior to intersecting the well.

j. When the well is intersected, the operator shall de-energize all equipment, and thoroughly examine and determine the area to be safe before permitting mining to resume.

current Approved Ventilation Plan will be followed at all times unless the District Manager deems a greater air velocity for the intersect is necessary.

(6) A journal shall be maintained describing the depth of each material encountered; the nature of each material encountered; bit size and type used to drill each portion of the hole; length and

conventional or continuous mining method is used) is available and operable during all well intersections. The fire hose shall be located in the last open crosscut of the entry or room. The operator shall maintain the water line to the belt conveyor tailpiece along with a sufficient amount of fire hose to reach the farthest point of penetration on the section. When the longwall mining method is used, a hose to the longwall water supply is sufficient. e. The operator shall ensure that sufficient supplies of roof support and ventilation materials shall be available and located at the last open crosscut. In addition, emergency plugs and suitable sealing materials shall be available in the immediate area of the well intersection.

m. Non-sparking (brass) tools will be located on the working section and will be used exclusively to expose and examine cased wells. n. No person shall be permitted in the area of the well intersection except those actually engaged in the operation, including company personnel, representatives of the miners, personnel from MSHA, and personnel from the appropriate State agency. o. The operator shall alert all personnel in the mine to the planned intersection of the well prior to their going underground if the planned intersection is to occur during their shift. This warning shall be repeated for all shifts until the well has been mined through.

r. The provisions of this Order do not impair the authority of representatives of MSHA to interrupt or halt the well intersection, and to issue a withdrawal order, when they deem it necessary for the

representative of the operator, which order shall include the basis for the order. Operations in the affected area of the mine may not resume until a representative of MSHA permits resumption. The

t. If the well is not plugged to the total depth of all minable coal seams identified in the core hole logs, any coal seams beneath the lowest plug will remain subject to the barrier requirements of 30

u. All necessary safety precautions and safe practices according to Industry Standards, required by MSHA regulations and State regulatory agencies having jurisdiction over the plugging site will be

v. All miners involved in the plugging or re-plugging operations will be trained on the contents of this petition prior to starting the process and a copy of this petition will be posted at the well site

x. Within 30 days after this Order becomes final, the operator shall submit proposed revisions for its approved 30 C.F.R. Part 48 training plan to the District Manager. These proposed revisions shall

include initial and refresher training on compliance with the terms and conditions stated in the Order. The operator shall provide all miners involved in well intersection with training on the

p. The well intersection shall be under the direct supervision of a certified individual. Instructions concerning the well intersection shall be issued only by the certified individual in charge.

q. If the mine operator cannot find the well in the middle of the panel or a gate section misses the anticipated intersection, mining shall cease and the District Manager shall be notified.

safety of the miners. MSHA may order an interruption or cessation of the well intersection and/or a withdrawal of personnel by issuing either a verbal or written order to that effect to a

mine operator and miners shall comply with verbal or written MSHA orders immediately. All verbal orders shall be committed to writing within a reasonable time as conditions permit.

w. Mechanical bridge plugs should incorporate the best available technologies that are either required or recognized by the State regulatory agency and/or oil and gas industry.

requirements of this Order prior to mining within 150 feet of the next well intended to be mined through. y. The responsible person required under 30 C.F.R. § 75.1501 Emergency Evacuations, is responsible for well intersection emergencies. The well intersection procedures should be reviewed by the responsible person prior to any planned intersection. z. Within 30 days after this Order becomes final, the operator shall submit proposed revisions for its approved mine emergency evacuation and firefighting program of instruction required under 30 C.F.R § 75.1502. The operator will revise the program of instruction to include the hazards and evacuation procedures to be used for well intersections. All underground miners will be trained in this revised plan within 30 days of submittal. Any party to this action desiring a hearing on this matter must file in accordance with 30 C.F.R. § 44.14, within 30 days. The request for hearing must be filed with the Administrator for Mine Safety and Health Enforcement, 201 12th Street South, Suite 401, Arlington, Virginia 22202-5452. 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

A party other than Petitioner who has requested a hearing shall 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 Decision and Order will become final and must be posted by the operator on the mine bulletin board

Appendix A

50, 10' Top of Seam Bottom of Seam 10' (400' if well is 4,000 feet or greater - pattern NOTES: 1. Continuous rip from 10 feet below to 10 feet above coal seam or like sketch. continues 2. Additional rips made across coal seam to facilitate mine through. 3. A minimum of 4 shots or one 3-foot rip at each location. 4. A circumferential cut around the entire casing may be substituted for the perforation or ripping. NOT TO SCALE

Frequently Asked Questions Fatality Database Support & Resources <u>Forms</u> **FEDERAL GOVERNMENT**

<u>USA.gov</u>

U.S. Department of Labor Mine Safety and Health Administration 201 12th St S Suite 401

White House **Disaster Recovery Assistance** No FEAR Act Data

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