Subpart T — Safety Standards for Methane in Metal and Nonmetal Mines

General

57.22001 Scope.

This Subpart T sets forth procedures and safety standards for each metal and nonmetal underground mine subject to the Federal Mine Safety and Health Act of 1977. All metal and nonmetal mines will be placed into one of the categories or subcategories defined in this Subpart. Mines shall operate in accordance with the applicable standards in this Subpart to protect persons against the hazards of methane gas and dust containing volatile matter. The standards in this Subpart apply to underground mines as well as surface mills at Subcategory I-C mines. These mines are also required to be operated in accordance with the other applicable health and safety standards published in 30 CFR Part 57.

57.22002 Definitions.

The following definitions apply in this Subpart:

Abandoned areas. Areas in which work has been completed, no further work is planned, and travel is not permitted.

Auxiliary fan. A fan used to deliver air to a working place off the main airstream; generally used with ventilation tubing.

Blowout. A sudden, violent, release of gas or liquid due to reservoir pressure in a petroleum mine.

Booster fan. A fan installed in the main airstream or a split of the main airstream to increase airflow through a section of a mine.

Combustible material. A material that, in the form in which it is used and under the conditions anticipated,

will ignite, burn, support combustion or release flammable vapors when subjected to fire or heat. Wood, paper, rubber, and plastics are examples of combustibles.

Competent person. A person designated by the mine operator who has sufficient experience and training to perform the assigned task.

Explosive material. Explosives, blasting agents, and detonators. Explosives are substances classified as explosives by the Department of Transportation in §§ 173.53, 173.88, and 173.100 of Title 49 of the Code of Federal Regulations (1986 Edition). Blasting agents are substances classified as blasting agents by the Department of Transportation in § 173.114(a) of Title 49 of the Code of Federal Regulations (1986 Edition). Detonators are devices containing a detonating charge used to initiate explosives. Examples of detonators are blasting caps, electric or non-electric instantaneous or delay blasting caps and delay connectors. [A copy of Title 49 is available at any Metal and Nonmetal Mine Safety and Health District Office of the Mine Safety and Health Administration].

Geological area. An area characterized by the presence of the same ore bodies, the same stratigraphic sequence of beds, or the same ore-bearing geological formation.

Mine atmosphere. Any point at least 12 inches away from the back,face, rib, and floor in any mine; and additionally, in a Category IV mine, at least 3 feet laterally away from the collar of a borehole which releases gas into the mine.

Noncombustible material. A material that, in the form in which it is used and under the conditions anticipated, will not ignite, burn, support combustion, or release flammable vapors when subjected to fire or heat. Concrete, masonry block, brick, and steel are examples on noncombustible materials.

Outburst. The sudden, violent release of solids and high-pressure occluded gases, including methane, in a domal salt mine.

Substantial construction. Construction of such strength, material, and workmanship that the object will withstand air blasts, blasting shock, ground movement, pressure differentials, wear, and usage which may be expected to occur in the mining environment.

Mine Categorization

57.22003 Mine Category or subcategory.

(a) All underground mines, and the surface mills of Subcategory I-C mines (gilsonite), shall be placed into one of the following categories or subcategories to protect persons against the hazards of methane and dusts containing volatile matter. Categories and subcategories are defined as follows:

(1)*Category I* applies to mines that operate within a combustible ore body and either liberate methane or have the potential to liberate methane or have the potential to liberate methane based on the history of the mine or the geological area in which the mine is located. Category I is divided into Subcategories I-A, I-B, and I-C as follows:

(i) *Subcategory I-A* applies to mines that operate within a combustible ore body and liberate methane and in which —

(A) A concentration of 0.25 percent or more methane has been detected in the mine atmosphere and confirmed by laboratory analysis; or

(B) An ignition of methane has occurred.

(ii) *Subcategory I-B* applies to mines that operate within a combustible ore body and have the potential to liberate methane based on the history of the mine or geological area in which the mine is located and in which—

(A) A concentration of 0.25 percent or more methane has not been detected in the mine atmosphere; and

(B) An ignition of methane has not occurred.

(iii) *Subcategory I-C* applies to mines in which the product extracted is combustible and the dust has a volatile matter content of 60 percent or more measured on a moisture free basis. [Measured by the American Society for Testing and Materials. ASTM D 3175-82. Standard Test Method for Volatile Matter in the Analysis Sample of Coal and Coke. (This document is available at any Metal and Nonmetal Mine Safety and Health District Office of the Mine Safety and Health Administration.)]

(2) *Category II* applies to domal salt mines where the history of the mine or geological area indicates the occurrence of or the potential for an outburst. Category II is divided into Subcategories II-A and II-B as follows:

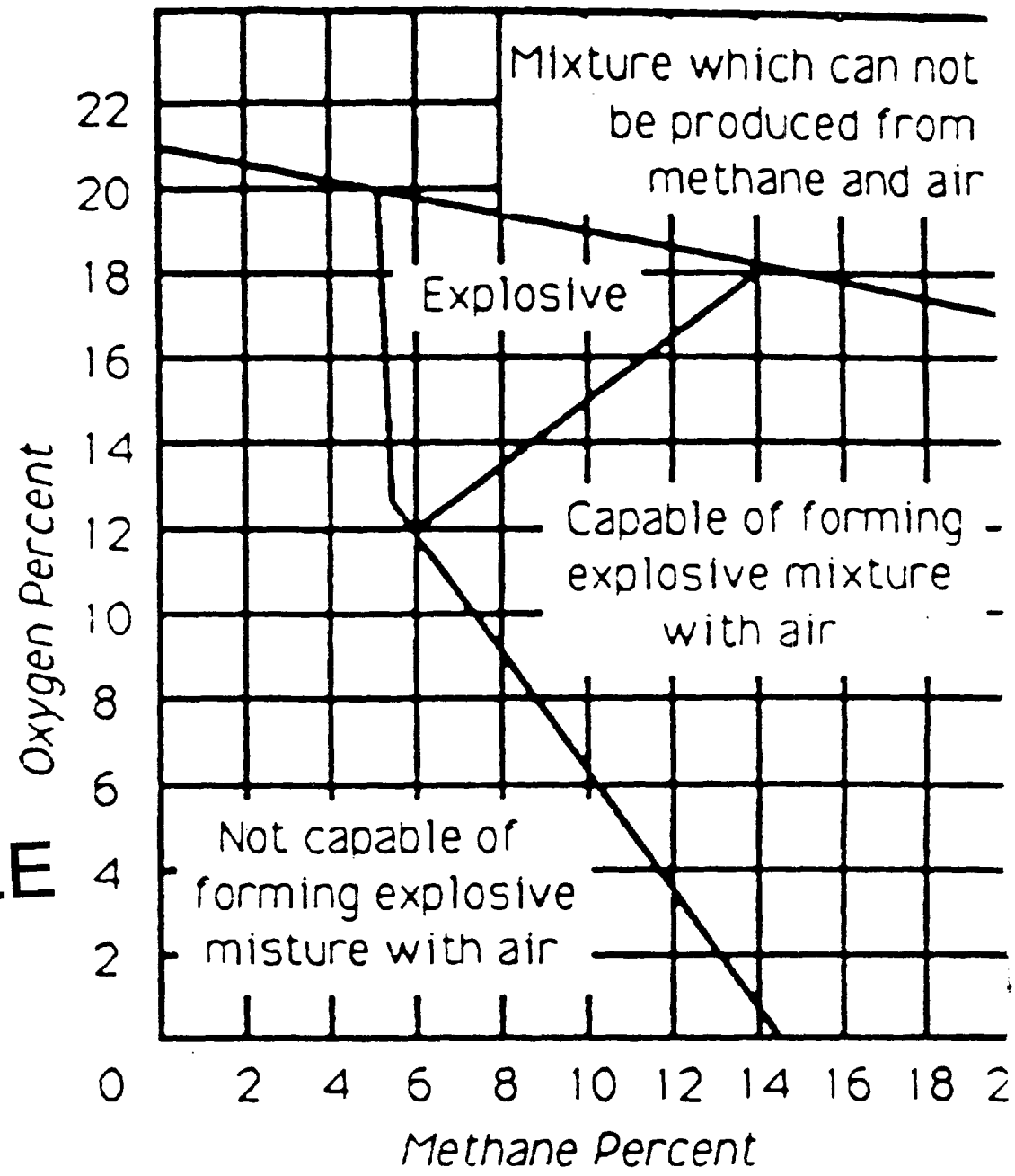
(i) *Subcategory II-A* applies to domal salt mines where an outburst reportable under 57.22004(c)(1) has occurred.

(ii) *Subcategory II-B* applies to domal salt mines where an outburst reportable under 57.22004(c)(1) has not occurred, but which have the potential for an outburst based on the history of the mine or geological area in which the mine is located.

CAT. III

(3) *Category III* applies to mines in which noncombustible ore is extracted and which liberate a concentration of methane that is explosive, or is capable of forming explosive mixtures with air, or have the potential to do so based on the history of the mine or the geological area in which the mine is located. The concentration of methane in such mines is explosive or is capable of forming explosive mixtures if mixed with air as illustrated by Table 1, entitled "Relation Between Quantitative Composition and Explosibility of Mixtures of Methane and Air."

Relation Between Quantitative Composition an Explosibility of Methane and Air



ILLEGIBLE

CAT. IV

(4) *Category IV* applies to mines in which noncor bustible ore is extracted and which liberate a concentr tion of methane that is not explosive nor capable forming explosive mixtures with air based on the histo of the mine or the geological area in which the mine located. The concentration of methane in such mines not explosive nor capable of forming explosive mixtur if mixed with air as illustrated by Table 1 above, entitl "Relation Between Quantitative Composition and E

plosibility of Mixtures of Methane and Air."

(5) *Category V* applies to petroleum mines. Cate gory V is divided into Subcategories V-A and V-B a follows:

(i) *Subcategory V-A* applies to petroleum mine that operate entirely or partially within an oil reservoi and all other petroleum mines in which—

(A) A concentration of 0.25 percent or more meth ane has been detected in the mine atmosphere and con firmed by laboratory analysis; or

(B) An ignition of methane has occurred.

(ii) *Subcategory V-B* applies to petroleum mine that operate outside of and drill into an oil reservoir an in which—

(A) A concentration of 0.25 percent or more meth ane has not been detected in the mine atmosphere; and

(B) An ignition of methane has not occurred.

(6) *Category VI* applies to mines in which th presence of methane has not been established and are no included in another category or subcategory.

(b) Category or subcategory placement or change i placement shall include consideration of the following

(1) The history and geology of the mine or of th geological area in which the mine is located;

(2) The ore body and host rock;

(3) The character, amount, duration, origin, an nature of methane emission and the presence of explo sive dust and inert gases; and

(4) Whether or not conditions encountered durin primary or access development are transient or perma nent.

(c)(1) Gas samples for the purpose of category c subcategory placement or change in placement, and fo determining action levels, shall be taken in the min atmosphere. Gas samples taken to determine the natur and extent of an occurrence under 57.22004 (c) and (c may be taken at any location, including the source, poir

of entry and the mine atmosphere.

(2) Tests for methane shall be made with hand-held methanometers, methane monitors, atmospheric monitoring systems, devices used to provide laboratory analysis of samples, or with other equally effective sampling devices. However, only methane samples that have been confirmed by laboratory analysis shall be used for category or subcategory placement or change in placement.

(d) Each mine and mill shall be required to operate in accordance with the safety standards applicable to its particular category or subcategory.

57.22004 Category placement or change in placement.

The Administrator for Metal and Nonmetal Mine Safety and Health (Administrator) shall be responsible for category and subcategory placement, change in placement, and notification of placement of mines.

(a) The Administrator's proposed notice of placement or change in placement shall be sent to the mine operator and the appropriate representative of miners and shall include—

(1) The category or subcategory;

(2) The reasons for placement or change in placement;

(3) The data considered;

(4) The applicable standards and a time schedule for the mine operator to achieve compliance;

(5) Whether or not conditions encountered during primary or access development are transient or permanent; and

(6) Notification of the right to appeal the Administrator's determination under 57.22005.

(b) The operator or the representative of the miners shall have the right to request of the Administrator reassignment of the mine to a more appropriate category or subcategory if, based on operating experience, the conditions set forth in 57.22003(b) indicate that the

hazards of methane exist under circumstances more appropriately governed by a different category or subcategory. In response to such a request, the procedures set forth in paragraph (d) of this section shall apply. While the request for category or subcategory reassignment is pending, the mine shall continue to operate under the standards for the category or subcategory to which originally assigned.

(c) MSHA shall be notified as soon as possible if any of the following events occur:

(1) An outburst that results in 0.25 percent or more methane in the mine atmosphere;

(2) A blowout that results in 0.25 percent or more methane in the mine atmosphere;

(3) An ignition of methane; or

(4) Air sample results that indicate 0.25 percent or more methane in the mine atmosphere of a Subcategory I-B, I-C, II-B, V-B or Category VI mine.

(d) The Administrator shall promptly appoint an MSHA committee to investigate occurrences reported in accordance with paragraph (c) of this section or requests filed in accordance with paragraph (b) of this section. Upon completion of an investigation, the committee shall make a written report of the findings. These investigations may include an evaluation of the following:

(1) Source, nature, and extent of occurrences;

(2) Conditions under which the incident occurred;

(3) Samples and tests;

(4) Physical conditions at the time of the occurrence;

(5) Charts, logs, and records related to the occurrence;

(6) Whether the occurrence is isolated, continuous, or could recur;

(7) Conditions indicating that the hazards of methane no longer exist or exist under circumstances more

appropriately governed by a different category or subcategory;

(8) The geology of the mine and the geological area in which the mine is located; and

(9) Statements by witnesses, company officials, employees, and other persons having knowledge of the mine or the occurrence. Representatives of the mine operator, the miners and the appropriate State agency may participate in the investigation.

57.22005 Notice and appeal of placement or change in placement.

(a) The Administrator's determination of category or subcategory placement or change in placement shall become final upon the 30th day after it is served on the mine operator and representative of miners, unless request for a hearing has been filed. Service of the Administrator's determination is complete upon mailing by registered or certified mail, return receipt requested.

(b) The mine operator or representative of miners may obtain review of the Administrator's determination by filing a request for a hearing with the Assistant Secretary of Labor for Mine Safety and Health, Mine Safety and Health Administration, 4015 Wilson Boulevard, Arlington, Virginia 22203 within 30 days of the Administrator's determination. Service of a request for hearing is completed upon mailing by registered or certified mail, return receipt requested. Requests for a hearing shall be in writing and contain the following information:

(1) Name, address, and mine identification number;

(2) A concise statement of the reason why the Administrator's determination is inappropriate; and

(3) A copy of the Administrator's determination.

(c) The mine operator shall post a copy of the Administrator's determination and the request for a hearing on the mine bulletin board, and shall maintain the posting until the placement becomes final.

appropriately governed by a different category or subcategory;

(8) The geology of the mine and the geological area in which the mine is located; and

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(3) A copy of the Administrator's determination.

(c) The mine operator shall post a copy of the Administrator's determination and the request for a hearing on the mine bulletin board, and shall maintain the posting until the placement becomes final.

(d) Promptly after receipt of the request for a hearing, the Assistant Secretary shall refer to the Chief Administrative Law Judge, United States Department of Labor, the following:

(1) The request for a hearing;

(2) The Administrator's determination; and

(3) All information upon which the Administrator's determination was based.

(e) The hearing shall be regulated and conducted by an Administrative Law Judge in accordance with 29 CFR Part 18, entitled, "Rules of Practice and Procedure for Administrative Hearings Before the Office of Administrative Law Judges." Once the Administrative Law Judge has made an initial decision and served each party, the decision shall be final on the 30th day after service, unless discretionary review is undertaken by the Assistant Secretary or an appeal is filed by the mine operator or representative of the miners under paragraph (f) of this section.

(f) Within 30 days after service of an initial decision of an Administrative Law Judge, the Assistant Secretary for Mine Safety and Health may undertake a discretionary review of the initial decision, or the mine operator, or representative of the miners may appeal the initial decision of the Administrative Law Judge to the Assistant Secretary.

(1) The Assistant Secretary shall give notice of discretionary review to the mine operator and representative of the miners. The mine operator or representative of the miners shall give notice of the appeal to the other party. The notice shall specify the suggested changes and refer to the specific findings of fact, conclusions of law, and terms of the initial decision to be reviewed or appealed. The Assistant Secretary shall fix a time for filing any objections to the suggested changes and supporting reasons.

(2) The Assistant Secretary shall promptly notify

the Administrative Law Judge of a discretionary review or an appeal. The entire record of the proceedings shall be transmitted to the Assistant Secretary for review.

(3) The Assistant Secretary shall make the final decision based upon consideration of the record of the proceedings. The final decision may affirm, modify, or set aside in whole or in part, the findings and conclusions contained in the initial decision. A statement of reasons for the action taken shall be included in the final decision. The final decision shall be served upon the mine operator and representative of the miners.

(g) Unless a decision by the Administrator for Metal and Nonmetal Mine Safety and Health, or the initial decision of the Administrative Law Judge, is appealed within 30 days, it becomes final, and is not subject to judicial review for the purposes of 5 U.S.C. 704. Only a decision by the Assistant Secretary shall be considered final Agency action for purposes of judicial review. Any such appeal must be filed in the appropriate circuit of the United States Court of Appeal.

(h) While a final decision of category placement is pending the following procedures shall apply:

(1) Where a mine has been classified as gassy prior to the effective date of these standards, existing gassy mines standards 30 CFR 57.21001 through 57.21101 (1986 Edition) shall continue to be applicable until placement is final.

(2) Where a mine has not been classified as gassy prior to the effective date of these standards and it is placed in Categories I through V, the mine shall comply with Category VI standards (57.22231, 57.22232, 57.22236, and 57.22238) until placement is final.

(3) Where a mine has been classified in Categories I through V after the effective date of these standards and category reassignment is being considered, the mine shall comply with the standards applicable to the category to which presently assigned until category place-

ment is final.

Fire Prevention and Control

[Note — The Category or Subcategory applicability of each standard appears in the parentheses of each standard's title line.]

CAT. III **57.22101 Smoking (I-A, II-A, III, and V-A mines).**

Persons shall not smoke or carry smoking materials, matches, or lighters underground. The operator shall institute a reasonable program to assure that persons entering the mine do not carry such items.

57.22102 Smoking (I-C mines).

(a) Persons shall not smoke or carry smoking materials, matches, or lighter underground or within 50 feet of a mine opening. The operator shall institute a reasonable program to assure that persons entering the mine do not carry such items.

(b) Smoking is prohibited in surface milling facilities except in designated, dust-free smoking areas.

CAT. III **57.22103 Open flames (I-A, II-A, III, and V-A mines).**

Open flames shall not be permitted underground except for welding, cutting, and other maintenance operations, and for igniting underground retorts in a Subcategory I-A mine. When using open flames in other than fresh air, or in places where methane may enter the air current, tests for methane shall be conducted by a competent person before work is started and every 10 minutes until the job is completed. Continuous methane monitors with audible alarms may be used after the initial test has been conducted as an alternative to the ten-minute interval testing requirement. Open flames shall not be used in atmospheres containing 0.5 percent or more methane.

57.22104 Open flames (I-C mines).

(a) Open flames, including cutting and welding, shall not be used underground.

(b) Welding and cutting shall not be done within 50 feet of a mine opening unless all persons are out of the mine and the mine opening is covered. The cover shall be a substantial material, such as metal or wood, topped with a layer of wetted material to prevent sparks and flames from entering the mine opening.

CAT. IV

57.22105 Smoking and open flames (IV mines).

Smoking or open flames shall not be permitted in a face or raise, or during release of gas from a borehole until test have been conducted in accordance with 57.22226 and the methane level has been determined to be below 0.5 percent.

57.22106 Dust containing volatile matter (I-C mines).

Dust containing volatile matter shall not be allowed to accumulate on the surfaces of enclosures, facilities, or equipment used in surface milling in amounts that, if suspended in air, would become an explosive mixture. An explosive mixture of dust containing volatile matter is 0.02 ounce or more per cubic foot of air.

Ventilation

CAT. III & IV

57.22201 Mechanical ventilation (I-A, I-B, I-C, II-A, II-B, III, IV, V-A, and V-B mines).

All mines shall be ventilated mechanically.

CAT. III

57.22202 Main fans (I-A, I-B, I-C, II-A, III, V-A, and V-B mines).

(a) Main fans shall be—

(1) Installed on the surface in noncombustible housings provided with noncombustible air ducts;

(2) Except in Subcategory I-A mines, provided with an automatic signal device to give an alarm when the fan stops. The signal device shall be located so that it can be

seen or heard by a person designated by the mine operator.

(b) Fan installations shall be—

(1) Offset so that the fan and its associated components are not in direct line with possible explosive forces;

(2) Equipped with explosion-doors, a weak-wall, or other equivalent devices located to relieve the pressure that would be created by an explosion underground. The area of the doors or weak-wall shall be at least equivalent to the average cross-sectional area of the airway.

(c)(1) All main fan-related electrical equipment and cables located within or exposed to the forward or reverse airstream shall be approved by MSHA under the applicable requirements of 30 CFR Part 18;

(2) Drive belts and nonmetallic fan blades shall be constructed of static-conducting material; and

(3) Aluminum alloy fan blades shall not contain more than 0.5 percent magnesium. [Paragraph (c)(3) of this section does not apply to Subcategory I-C mines].

(d) When an internal combustion engine is used to power a main fan or as standby power, the engine shall be —

(1) Installed in a noncombustible housing;

(2) Protected from a possible fuel supply fire or explosion; and

(3) Located out of direct line with the forward and reverse airstream provided by the fan. Engine exhaust gases shall be vented to the atmosphere so that exhaust cannot contaminate mine intake air.

(e) For Subcategory I-A mines only: Main exhaust fans shall be equipped with methane monitors to give an alarm when methane in the return air reaches 0.5 percent. The alarm shall be located so that it can be seen or heard by a person designated by the mine operator.

75.22203 Main fan operation (I-C mines).

Main fans shall be operated continuously while ore production is in progress.

CAT. III

75.22204 Main fan operation and inspection (I-A, II-A, III, and V-A mines).

Main fans shall be—

(a) Provided with a pressure-recording system; and

(b) Inspected daily while operating if persons are underground. Certification of inspections shall be made by signature and date. Certifications and pressure recordings shall be retained for at least one year and made available to an authorized representative of the Secretary.

CAT. III

57.22205 Doors on main fans (I-A, II-A, III, and V-A mines).

In mines ventilated by multiple main fans, each main fan installation shall be equipped with noncombustible doors. Such doors shall automatically close to prevent air reversal through the fan. The doors shall be located so that they are not in direct line with explosive forces which could come out of the mine.

CAT. III

57.22206 Main ventilation failure (I-A, II-A, III, and V-A mines).

(a) When there has been a main ventilation failure, such as stoppage of main fans or failure of other components of the main ventilation system, tests for methane shall be conducted in affected active workings until normal air flow has resumed.

(b) If a total failure of ventilation occurs while all persons are out of the mine and the failure lasts for more than 30 minutes, only competent persons shall be allowed underground to examine the mine or to make necessary ventilation changes. Other persons may reenter the mine after the main fans have been operational for at least 30 minutes, or after the mine atmosphere has been tested and contains less than 1.0 percent methane. Persons other than examiners shall not reenter a Subcategory II-A mine until the methane level is less than 0.5 percent.

CAT. III

57.22207 Booster fans (I-A, II-A, III, and V-A mines).

(a) Booster fans shall be approved by MSHA under the applicable requirements of 30 CFR Part 18, and be—

(1) Provided with an automatic signal device located so that it can be seen or heard by a person designated by the mine operator to give an alarm when the fan stops or when methane reaches the following levels:

(i) 1.0 percent at the fan in Subcategory I-A, Category III, and Subcategory V-A mines; and

(ii) 0.5 percent at the fan in Subcategory II-A mines.

(2) Equipped with a device that automatically deenergizes power in affected workings should the fan stop; and

(3) Equipped with starting and stopping controls located at the fan and at another accessible remote location.

(b)Booster fan installations, except for booster fans installed in ducts, shall be—

(1) Provided with doors which open automatically when all fans in the installation stop; and

(2)Provided with an air lock when passage through the fan bulkhead is necessary.

CAT. III

57.22208 Auxiliary fans (I-A, II-A, III, and V-A mines).

(a) Auxiliary fans, except fans used in shops and other areas which have been so designed that methane cannot enter the airway, shall be approved by MSHA under the applicable requirements of 30 CFR Part 18, and be operated so that recirculation is minimized. Auxiliary fans shall not be used to ventilate work places during the interruption of normal mine ventilation.

(b) Tests for methane shall be made at auxiliary fans before they are started.

57.22209 Auxiliary fans (I-C mines).

Electric auxiliary fans shall be approved by MSHA under the applicable requirements of 30 CFR Part 18.

Tests for methane shall be made at electric auxiliary fans before they are started. Such fans shall not be operated when air passing over or through them contains 0.5 percent or more methane.

57.22210 In-line filters (I-C mines).

Filters or separators shall be installed on air-lift fan systems to prevent explosive concentrations of dust from passing through the fan.

57.22211 Air flow (I-A mines).

The average air velocity in the last open crosscut in pairs or sets of developing entries, or through other ventilation openings nearest the face, shall be at least 40 feet per minute. The velocity of air ventilating each face at a work place shall be at least 20 feet per minute.

57.22212 Air flow (I-C, II-A, and V-A mines).

Air flow across each working face shall be sufficient to carry away any accumulation of methane, smoke, fumes, and dust.

CAT. III

57.22213 Air flow (III mines).

The quantity of air coursed through the last open crosscut in pairs or sets of entries, or through other ventilation openings nearest the face, shall be at least 6,000 cubic feet per minute, or 9,000 cubic feet per minute in longwall and continuous miner sections. The quantity of air across each face at a work place shall be at least 2,000 cubic feet per minute.

CAT. III

57.22214 Changes in ventilation (I-A, II-A, III, and V-A mines).

(a) Changes in ventilation which affect the main air current or any split thereof and which adversely affect the safety of persons in the mine shall be made only when the mine is idle.

(b) Only persons engaged in making such ventilation changes shall be permitted in the mine during changes.

(c) Power shall be deenergized in affected areas prior to making ventilation changes, except power to

monitoring equipment determined by MSHA to be intrinsically safe under 30 CFR Part 18. Power shall not be restored until the results of the change have been determined and a competent person has examined affected working places for methane.

CAT. III

57.22215 Separation of intake and return air (I-A,II-A, III, and V-A mines).

Main intake and return air currents shall be coursed through separate mine openings and shall be separated throughout the mine, except—

(a) Where multiple shafts are used for ventilation and a single shaft contains a curtain wall or partition for separation of air currents. Such wall or partition shall be constructed of reinforced concrete or other noncombustible equivalent, and provided with pressure-relief devices.

(b) During development of openings to the surface—

(1) Ventilation tubing approved by MSHA in accordance with 30 CFR Part 7 or previously issued a BC or VT acceptance number by the MSHA Approval and Certification Center may be used for separation of main air currents in the same opening. Flexible ventilation tubing shall not exceed 250 feet in length.

(2) Only development related to making a primary ventilation connection may be performed beyond 250 feet of the shaft.

57.22216 Separation of intake and return air (I-C mines).

The main intake and return air currents in single shafts shall be separated by ventilation tubing, curtain walls, or partitions. Ventilation tubing shall be constructed of noncombustible material. Curtain walls or partitions shall be constructed of reinforced concrete or other noncombustible equivalent, and provided with pressure-relief devices.

57.22217 Seals and stoppings (I-A, I-B, and I-C mines).

All seals, and those stoppings that separate main intake from main return airways, shall be of substantial construction and constructed of noncombustible materials, except that stoppings constructed of brattice materials may be used in face areas.

CAT. III

57.22218 Seals and stoppings (III, V-A, and V-B mines).

(a) All seals, and those stoppings that separate main intake from main return airways, shall be of substantial construction, except that stoppings constructed of brattice materials may be used in face areas.

(b) Exposed surfaces on the intake side of stoppings constructed of combustible materials or foam-type blocks shall be coated with at least one inch of construction plaster containing perlite and gypsum; at least one inch of expanded vermiculite, Portland cement and limestone; or other coatings with equivalent fire resistance. Stoppings constructed of phenolic foam blocks at least 12 inches thick need not be coated for fire resistance. All foam-type blocks used for stopping construction shall be solid.

(c) Exposed surfaces on the fresh air side of seals constructed of combustible materials shall be coated with at least one inch of construction plaster containing perlite and gypsum; at least one inch of expanded vermiculite, Portland cement and limestone; or other coatings with equivalent fire resistance. Foam-type blocks shall not be used for seals.

57.22219 Seals and stoppings (II-A mines).

(a) Exposed surfaces on the intake side of stoppings constructed of combustible materials, except brattice, shall be coated with at least one inch of construction plaster containing perlite and gypsum; at least one inch of expanded vermiculite, Portland cement and limestone; or other coatings with equivalent fire resistance.

(b) Seals shall be of substantial construction. Exposed surfaces on the fresh air side of seals constructed of combustible materials shall be coated with at least one inch of construction plaster containing perlite and gypsum; at least one inch of expanded vermiculite, Portland cement and limestone; or other coatings with equivalent fire resistance. Foam-type blocks shall not be used for seals.

CAT. III **57.22220 Air passing unsealed areas (I-A, II-A, III, and V-A mines).**

Air that has passed by or through unsealed abandoned or unsealed inactive areas and contains 0.25 percent or more methane shall—

(a) Be coursed directly to a returned airway;

(b) Be tested daily for methane by a competent person; and

(c) Not be used to ventilate work places.

CAT. III **57.22221 Overcast and undercast construction (I-A, II-A, III, and V-A mines).**

Overcasts and undercasts shall be —

(a) Of substantial construction;

(b)(1) Constructed of noncombustible materials; or

(2) Where constructed of combustible materials, the outside surfaces shall be coated with at least one inch on construction plaster containing perlite and gypsum; at lease one inch of expanded vermiculite, Portland cement and limestone; or other coatings with equivalent fire resistance;

(c) Kept clear of obstructions.

CAT. III **57.22222 Ventilation materials (I-A, I-B, I-C, II-A, III, V-A, and V-B mines).**

Brattice cloth and ventilation tubing shall be approved by MSHA in accordance with 30 CFR Part 7, or shall bear a BC or VT acceptance number issued by the MSHA Approval and Certification Center.

CAT. III **57.22223 Crosscuts before abandonment (III mines).**

A means of ventilating faces shall be provided before workings are abandoned in unsealed areas, unless crosscuts are provided within 30 feet of the face.

CAT. III **57.22224 Auxiliary equipment stations (I-A and III mines).**

Battery charging stations, compressor stations, pump stations, and transformer stations shall be installed in intake air at locations which are sufficiently ventilated to prevent the accumulation of methane.

57.22225 Auxiliary equipment stations (I-C mines).

Battery charging stations, compressor stations, and electrical substations shall not be installed underground or within 50 feet of a mine opening.

CAT. IV **57.22226 Testing for methane (IV mines).**

Tests for methane shall be conducted in the mine atmosphere by a competent person—

(a) At least once each shift prior to starting work in each face and raise; and

(b) Upon initial release of gas into the mine atmosphere from boreholes.

CAT. III & IV **57.22227 Approved testing devices (I-A, I-B, I-C, II-A, II-B, III, IV, V-A and V-B mines).**

(a) Methane monitoring devices and portable, battery-powered, self-contained devices used for measuring methane, other gases, and contaminants in mine air shall be approved by MSHA under applicable requirements of 30 CFR Parts 18, 21, 22, 23, 27, and 29. Such devices shall be maintained in accordance with manufacturers' instructions, or an equivalent maintenance and calibration procedure.

(b)(1) Flame safety lamps shall not be used to test for methane except as supplementary devices.

(2) Flame safety lamps shall not be used in Subcategory I-C mines.

(c)(1) If electrically powered, remote sensing devices are used, that portion of the instrument located in return air or other places where combustible gases may be present shall be approved by MSHA under the applicable requirements of 30 CFR Parts 18, 22, 23, 27, and 29.

(2) If air samples are delivered to remote analytical devices through sampling tubes, such tubes shall be provided with in-line flame arrestors. Pumping equipment and analytical instruments shall be located in intake air.

CAT. III

57.22228 Preshift examination (I-A, I-C, II-A, III, and V-A mines).

(a) Preshift examinations shall be conducted within three hours prior to the start of the shift for which the examination is being made.

(b) Prior to the beginning of a shift following an idle shift, a competent person shall test the mine atmosphere for methane at all work places before persons other than examiners enter the mine.

(c) When one shift immediately follows another, a competent person shall test the mine atmosphere at each active working face for methane before work is started on that shift.

(d) A competent person shall test the mine atmosphere at each face blasted before work is started.

(e) Except in Subcategory I-C or Category III mines, vehicles used for transportation when examining the mine shall be approved by MSHA under the applicable requirements of 30 CFR Parts 18 through 36.

CAT. III

57.22229 Weekly testing (I-A, III, and V-A mines).

(a) The mine atmosphere shall be tested for methane and carbon monoxide at least once every seven days by a competent person or an atmospheric monitoring system, or a combination of the two. Such testing shall be done at the following locations:

(1) The return of each split where it enters the main return;

(2) Adjacent to retreat areas, if accessible;

(3) At least one seal of each sealed area, if accessible;

(4) Main returns;

(5) At least one entry of each intake and return;

(6) Idle workings; and

(7) Return air from unsealed abandoned workings.

(b) The volume of air (velocity in Subcategory I-A mines) shall be measured at least once every seven days by a competent person. Such measurement shall be done at the following locations:

(1) Entering main intakes;

(2) Leaving main returns;

(3) Entering each main split;

(4) Returning from each main split;

(5) In the last open crosscuts or other ventilation openings nearest the active faces where the air enters the return.

(c) Where such examinations disclose hazardous conditions, affected persons shall be informed and corrective action shall be taken.

(d) Certification of examinations shall be made by signature and date. Certifications shall be retained for at least one year and made available to authorized representatives of the Secretary.

57.22230 Weekly testing (II-A mines).

(a) The mine atmosphere shall be tested for methane at least once every seven days by a competent person or an atmospheric monitoring system, or a combination of the two. Such testing shall be done at the following locations:

(1) Active mining faces and benches;

(2) Main returns;

(3) Returns from idle workings;

(4) Returns from abandoned workings; and

sary to make the ventilation changes shall be withdrawn from affected areas;

(2) Electrical power shall be deenergized in affected areas, except power to monitoring equipment determined by MSHA to be intrinsically safe under 30 CFR Part 18; and

(3) Diesel equipment shall be shut off or immediately removed from the area.

(b) If methane reaches 1.0 percent at a main exhaust fan, electrical power underground shall be deenergized, except power to monitoring equipment determined by MSHA to be intrinsically safe under 30 CFR Part 18, and all persons shall be withdrawn from the mine.

(c) If methane reaches 1.0 percent at a work place and there has been a failure of the main ventilation system, all persons shall be withdrawn from the mine.

57.22235 Actions at 1.0 percent methane (I-C, II-A, II-B, and VI mines).

(a) If methane reaches 1.0 percent in the mine atmosphere, all persons other than competent persons necessary to make ventilation changes shall be withdrawn from affected areas until methane is reduced to less than 0.5 percent.

(b) If methane reaches 1.0 percent at a work place and there has been a failure of the main ventilation system, all persons shall be withdrawn from the mine.

57.22236 Actions at 1.0 percent methane (VI mines).

If methane reaches 1.0 percent in the mine atmosphere, all persons other than competent persons necessary to make ventilation changes shall be withdrawn from affected areas until methane is reduced to less than 0.5 percent.

CAT. III

57.22237 Actions at 2.0 to 2.5 percent methane in bleeder systems (I-A and III mines).

If methane reaches 2.0 percent in bleeder systems at the point where a bleeder split enters a main return split,

mining shall not be permitted on ventilation splits affected by the bleeder system. If methane has not been reduced to less than 2.0 percent within 30 minutes, or if methane levels reach 2.5 percent, all persons other than competent persons necessary to take corrective action shall be withdrawn from affected areas.

57.22238 Actions at 2.0 percent methane (I-B, II-B, V-B, and VI mines).

If methane reaches 2.0 percent in the mine atmosphere, all persons other than competent persons necessary to make ventilation changes shall be withdrawn from the mine until methane is reduced to less than 0.5 percent.

CAT. IV

57.22239 Actions at 2.0 percent methane (IV mines).

If methane reaches 2.0 percent in the mine atmosphere, all persons other than competent persons necessary to make ventilation changes shall be withdrawn from the mine until methane is reduced to less than 0.5 percent. MSHA shall be notified immediately.

57.22240 Actions at 2.0 percent methane (V-A mines).

If methane reaches 2.0 percent in the mine atmosphere, all persons other than competent persons necessary to make ventilation changes shall be withdrawn from affected areas until methane is reduced to less than 1.0 percent.

57.22241 Advance face boreholes (I-C mines).

(a) Boreholes shall be drilled at least 25 feet in advance of a face whenever the work place is within—

(1) 50 feet of a surveyed abandoned mine or abandoned workings which cannot be inspected; or

(2) 200 feet of an unsurveyed abandoned mine or abandoned workings which cannot be inspected.

(b) Boreholes shall be drilled in such a manner to insure that the advancing face will not accidently break into an abandoned mine or abandoned working.

Equipment

P. 26.

57.22301 Atmospheric monitoring systems (I-A, II-A, and V-A mines).

(a) An atmospheric monitoring system shall be installed to provide surface readings of methane concentrations in the mine atmosphere from underground locations. Components of the system shall be approved by MSHA under the applicable requirements of 30 CFR Parts 18, 22, 23, and 27; or be determined by MSHA under 30 CFR Part 18 to be intrinsically safe or explosion-proof.

(b) Atmospheric monitoring systems shall—

(1) Give warnings on the surface and underground when methane at any sensor reaches 0.5 percent or more, and when power to a sensor is interrupted. Warning devices shall be located so that they can be seen and heard by a person designated by the mine operator; and

(2) Automatically deenergize power in affected areas, except power to monitoring equipment determined by MSHA to be intrinsically safe under 30 CFR Part 18, when methane at any sensor reaches—

(i) 1.0 percent in a Subcategory I-A or V-A mine; or

(ii) 0.5 percent while persons are underground and 1.0 percent during blasting in a Subcategory II-A mine. Timing devices are permitted to avoid nuisance tripping for periods not to exceed 30 seconds, except during blasting or the ventilation time following a blast in a Subcategory II-A mine.

(c) Atmospheric monitoring systems shall be checked with a known mixture of methane, and calibrated if necessary at least once every 30 days. Certification of calibration tests shall be made by signature and date. Certifications of tests shall be retained for at least one year and made available to authorized representatives of the Secretary.

57.22302 Approved equipment (I-A and V-A mines).

Equipment used in or beyond the last open crosscut shall be approved by MSHA under the applicable requirements of 30 CFR Part 18 through 36. Equipment shall not be operated in atmospheres containing 1.0 percent or more methane.

57.22303 Approved equipment (I-C mines).

Only electrical equipment that is approved by MSHA under the applicable requirements of 30 CFR Parts 18 through 29, shall be used underground, except for submersible sump pumps.

57.22304 Approved equipment (II-A mines).

(a) Cutting and drilling equipment used at a face or bench shall be approved by MSHA under the applicable requirements of 30 CFR Parts 18 through 36.

(b) While cutting or drilling is in progress, equipment not approved by MSHA under the applicable requirements of 30 CFR Parts 18 through 36 shall remain at least 100 feet from the face or bench being mined.

(c) Tests for methane shall be conducted immediately before nonapproved equipment is taken to a face or bench after blasting.

(d) Mine power transformers and stationary equipment not approved by MSHA under the applicable requirements of 30 CFR Parts 18 through 36 shall be installed in fresh air or downwind from an atmospheric methane monitor sensor.

CAT. III

57.22305 Approved equipment (III mines).

Equipment used in or beyond the last open crosscut and equipment used in areas where methane may enter the air current, such as pillar recovery workings, longwall faces and shortwall faces, shall be approved by MSHA under the applicable requirements of 30 CFR Part 18 through 36. Equipment shall not be operated in atmospheres containing 1.0 percent or more methane.

57.22306 Methane monitors (I-A mines).

(a) Methane monitors shall be installed on continuous mining machines, longwall mining systems, and on loading and haulage equipment used in or beyond the last open crosscut.

(b) The monitors shall—

(1) Give warning at 1.0 percent methane;

(2) Automatically deenergize electrical equipment, except power to monitoring equipment determined by MSHA to be intrinsically safe under 30 CFR Part 18, and prevent starting such equipment when methane levels reach 1.5 percent. Diesel equipment shall be shut off or immediately removed from the affected area; and

(3) Automatically deenergize electrical equipment when power to a sensor is interrupted. Diesel equipment shall not be operated if the mouitor is inoperative.

(c) Sensing units of monitors shall be positioned at a location which provides for the most effective measurement of methane.

57.22307 Methane monitors (II-A mines).

(a) Methane monitors shall be installed on continuous mining machines, longwall mining systems, bench and face drills, and undercutting machines used in or beyond the last open crosscut.

(b) The monitors shall—

(1) Give warning at 0.5 percent methane;

(2) Automatically deenergize electrical equipment, except power to monitoring equipment determined by MSHA to be intrinsically safe under 30 CFR Part 18, and prevent starting such equipment when methane levels reach 1.5 percent; and

(3) Automatically deenergize the equipment when power to a sensor is interrupted.

(c) Sensing units of monitors shall be positioned at a location which provides for the most effective measurement of methane.

CAT. III

57.22308 Methane monitors (III mines).

(a) Methane monitors shall be installed on continuous mining machines and longwall mining systems.

(b) The monitors shall—

(1) Give warning at 1.0 percent methane;

(2) Automatically deenergize electrical equipment, except power to monitoring equipment determined by MSHA to be intrinsically safe under 30 CFR Part 18, and prevent starting such equipment when methane levels reach 1.5 percent.

(3) Automatically deenergize electrical equipment when power to a sensor is interrupted.

(c) Sensing units of monitors shall be positioned at a location which provides for the most effective measurement of methane.

57.22309 Methane monitors (V-A mines).

(a) Methane monitors shall be installed on continuous mining machines used in or beyond the last open crosscut.

(b) The monitors shall—

(1) Give warning at 1.0 percent methane.

(2) Automatically deenergize electrical equipment, except power to monitoring equipment determined by MSHA to be intrinsically safe under 30 CFR Part 18, and prevent starting such equipment when methane levels reach 1.5 percent.

(3) Automatically deenergize electrical equipment when power to a sensor is interrupted.

(c) Sensing units of monitors shall be positioned at a location which provides for the most effective measurement of methane.

57.22310 Electrical cables (I-C mines).

Electrical cables used to power submersible sump pumps shall be approved by MSHA under 30 CFR 18.64, or be installed in continuous metal conduit or metal pipe. The ends of such conduit or pipe shall be sealed to prevent entry of explosive gas or dust.

57.22311 Electrical cables (II-A mines).

Only jacketed electrical cables, which are approved by MSHA under 30 CFR 18.64, shall be used to supply power to distribution boxes and electrical equipment operating in face and bench areas.

57.22312 Distribution boxes (II-A and V-A mines).

Distribution boxes containing short circuit protection for trailing cables of approved equipment shall be approved by MSHA under 30 CFR Part 18.

57.22313 Explosion-protection systems (I-C mines).

Pressure-relief systems including vents, or explosion suppression systems, shall be provided on explosive dust handling and processing equipment and on facilities housing such equipment. Vents shall be installed so that forces are directed away from persons should an explosion occur. The ratio of vent size to internal size of the equipment or facility shall not be less than one square foot of vent for each 80 cubic feet of volume or space.

57.22314 Flow-control devices (V-A and V-B mines).

Oil recovery drill holes that penetrate oil bearing formations shall have devices to control the release of liquid hydrocarbons and hazardous gases during the drilling process. Such devices may be recovered for reuse after the formation has been depressurized or the well or borehole has been capped or connected to a collection system.

57.22315 Self-contained breathing apparatus (V-A mines).

Self-contained breathing apparatus of a duration to allow for escape from the mine and sufficient in number to equip all persons underground shall be strategically located throughout the mine. Such apparatus shall be approved by MSHA under the applicable requirements of 30 CFR Part 11, and shall be maintained in accordance

with manufacturer's specifications. This standard does not apply to double entry mining systems where crosscut intervals do not exceed 250 feet.

Underground Retorts

57.22401 Underground retorts (I-A and I-B mines).

(a) Retorts shall be provided with—

(1) Two independent power sources for main mine ventilation fans and those fans directly ventilating retort bulkheads, and for retort blowers, and provisions for switching promptly from one power source to the other; and

(2) An alarm system for blower malfunctions and an evacuation plan to assure safety of personnel in the event of a failure.

(b) Prior to the ignition of underground retorts, a written ignition and operation plan shall be submitted to the MSHA District Manager for the area in which the mine is located. The mine operator shall comply with all provisions of the retort plan. The retort plan shall include—

(1) Acceptable levels of combustible gases and oxygen in retort off-gases during start-up and during burning; levels at which corrective action will be initiated; levels at which personnel will be removed from the retort areas, from the mine and from endangered surface areas; and the conditions for reentering the mine;

(2) Specification and locations of off-gas monitoring procedures and equipment;

(3) Specifications for construction of retort bulkheads and seals, and their locations;

(4) Procedures for ignition of a retort and for reignition following a shutdown; and

(5) Details of area monitoring and alarm systems for hazardous gases and actions to be taken to assure safety

of personnel.

Illumination

CAT. III & IV **57.22501 Personal electric lamps (I-A, I-B, I-C, II-A, II-B, III, IV, V-A, V-B mines).**

Electric lamps used for personal illumination shall be approved by MSHA under the requirements of 30 CFR Parts 19 or 20, as applicable.

Explosives

57.22601 Blasting from the surface (I-A mines).

[Effective Date Note: At 53 FR 9615, Mar. 24, 1988, 57.22601 was stayed until further notice.]

(a) All development, production, and bench rounds shall be initiated from the surface after all persons are out of the mine. Persons shall not enter the mine until ventilating air has passed over the blast area and through at least one atmospheric monitoring sensor.

(b) After blasting, if the monitoring system indicates that methane in the mine is less than 1.0 percent, persons may enter the mine. All places blasted shall be tested for methane by a competent person before work is started.

(c) If the monitoring system indicates the presence of 1.0 percent or more methane, persons other than examiners shall not enter the mine until the mine has been examine by a competent person and the methane content has been reduced to less than 1.0 percent.

(d) Vehicles used for transportation when examining the mine shall be approved by MSHA under the applicable requirements of 30 CFR Parts 18 through 36.

57.22602 Blasting from the surface (I-C mines).

(a) All blasting shall be initiated from the surface after all persons are out of the mine and any connecting mines.

(b) Persons shall not enter the mine until a competent person has examined the blast sites and methane concentrations are less than 0.5 percent.

57.22603 Blasting from the Surface (II-A mines).

(a) All development, production, and bench rounds shall be initiated from the surface after all persons are out of the mine. Persons shall not enter the mine until the mine has been ventilated for at least 15 minutes and the ventilating air has passed over the blast area and through at least one atmospheric monitoring sensor.

(b) If the monitoring system indicates that methane in the mine is less than 0.5 percent, competent persons may enter the mine to test for methane in all blast areas.

(c) If the monitoring system indicates that methane in the mine is 0.5 percent or more, the mine shall be ventilated and persons shall not enter the mine until the monitoring system indicates that methane in the mine is less than 0.5 percent.

(d) If the monitoring system is inoperable or malfunctions, the mine shall be ventilated for at least 45 minutes and the mine power shall be deenergized before persons enter the mine. Only competent persons necessary to test for methane may enter the mine until the methane in the mine is less than 0.5 percent.

(e) Vehicles used for transportation when examining the mine shall be approved by MSHA under the applicable requirements of 30 CFR Parts 18 through 36. Vehicles shall not be used to examine the mine if the monitoring system is inoperable or has malfunctioned.

57.22604 Blasting from the surface (II-B mines).

All development, production, and bench rounds shall be initiated from the surface after all persons are out of the mine. Persons other than those designated by the mine operator to make methane tests shall not enter the mine until all blast areas have been tested for methane.

57.22605 Blasting from the surface (V-A mines).

(a) All development and production blasting shall

be initiated from the surface after all persons are out of the mine. Persons shall not enter the mine until ventilating air has passed over the blast area and through at least one atmospheric monitoring sensor.

(b) If the monitoring system indicates that methane in the mine is less than 1.0 percent, persons may enter the mine, and all places blasted shall be tested for methane by a competent person before work is started.

(c) If the monitoring system indicates the presence of 1.0 percent or more methane, persons other than examiners shall not enter the mine until the mine has been examined by a competent person and the methane level is less than 1.0 percent.

(d) Vehicles used for transportation when examining the mine shall be approved by MSHA under the applicable requirements of 30 CFR Parts 18 through 36.

(e) This standard applies only to mines blasting within an oil reservoir.

CAT. III

57.22606 Explosive materials and blasting units (III mines).

(a) Mine operators shall notify the appropriate MSHA District Manager of all nonapproved explosive materials and blasting units to be used prior to their use. Explosive materials used for blasting shall be approved by MSHA under 30 CFR Part 15, or nonapproved explosive materials shall be evaluated and determined by the District Manager to be safe for blasting in a potentially gassy environment. The notice shall also include the millisecond-delay interval between successive shots and between the first and last shot in a round.

(b) Faces shall be examined for proper placement of holes, possible breakthrough, and water. Ammonium nitrate blasting agents shall not be loaded into wet holes.

(c) Multiple-shot blasts shall be initiated with detonators encased in copper-based alloy shells. Aluminum and aluminum alloy-cased detonators, nonelectric detonators, detonating cord, and safety fuses shall not be

used. All detonators in a round shall be made by the same manufacturer.

(d) Nonapproved explosives shall be used only as primers with ammonium nitrate-fuel oil blasting agents. Such primers shall be placed at the back or bottom of the hole.

(e) Blast holes shall be stemmed with a noncombustible material in an amount to confine the explosive charge. Breakthrough holes shall be stemmed at both ends.

(f) Mudcaps or other nonapproved unconfined shots shall not be blasted.

(g)(1) Blasting units shall be approved by MSHA under 30 CFR Part 25; or

(2) Blasting units used to fire more than 20 detonators shall provide at least 2 amperes through each detonator but not more than an average of 100 amperes through one ohm for 10 milliseconds, and provide the necessary current for at least the first 5 milliseconds with a cutoff not to exceed 10 milliseconds.

CAT. III

57.22607 Blasting on shift (III mines).

When blasting on shift, tests for methane shall be made in the mine atmosphere by a competent person before blasting. Blasting shall not be done when 1.0 percent or more methane is present.

57.22608 Secondary blasting (I-A, II-A, and V-A mines).

Prior to secondary blasting, tests for methane shall be made in the mine atmosphere at blast sites by a competent person. Secondary blasting shall not be done when 0.5 percent or more methane is present.

END

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

June 12, 1992

LOSEE, CARSON, HAAS & CARROLL
Attorneys at Law
P. O. Drawer 239
Artesia, New Mexico 88211-0239

RE: CASE NO. 10446, 10447
10448, 10449
ORDER NO. R-9679

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Sincerely,

Florene Davidson
OC Staff Specialist

FD/sl

cc: BLM - Carlsbad
A.J. Losee
Charlie High
T. Kellahin
Clinton Marrs
James Bruce

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF YATES PETROLEUM CORPORATION FOR PERMITS TO DRILL, EDDY COUNTY, NEW MEXICO.

APPLICATIONS FOR HEARINGS de novo in CASE NOS.:

10446/Order R-9650
10447/Order R-9651
10448/Order R-9654
10449/Order R-9655

AND IN CONJUNCTION WITH THE APPLICATION OF YATES PETROLEUM CORPORATION TO AMEND ORDER R-111-P, AS AMENDED, PERTAINING TO THE POTASH AREAS OF EDDY AND LEA COUNTIES, NEW MEXICO

CASE NO. _____

SUBPOENA DUCES TECUM

RECEIVED

OIL CONSERVATION DIVISION

TO: Leslie Cone, District Manager
Bureau of Land Management
U. S. Department of the Interior
1717 W. 2nd St.
P. O. Box 1397
Roswell, NM 882202-1397

Pursuant to Section 70-2-8, M.M.S.A. (1978) and the New Mexico Oil Conservation Division Rule 1211, YOU ARE HEREBY COMMANDED to appear at the place, day and time specified below and produce for inspection and copying the documents described on the attached Exhibit "A".

PLACE

Roswell District Office, Bureau of Land Management, 1717 W. Second, Roswell, New Mexico, or such other location designated by agreement.

DAY AND TIME

May 11, 1992, during office hours as reasonably agreed upon by the parties.

This subpoena is issued on the Applications for Permit to Drill of Yates Petroleum Corporation, by and through its attorneys, Losee,

Carson, Haas & Carroll, P. A., P. O. Drawer 239, Artesia, New Mexico, 8821-0239, which applications are the subject of Applications for Hearing de novo, and in conjunction with Yates Petroleum Corporation's Application to Amend Order R-111-P, as Amended, Pertaining to the Potash Areas of Eddy and Lea Counties, New Mexico.

DATED this 6th day of May, 1992.

NEW MEXICO OIL CONSERVATION DIVISION

By: _____

EXHIBIT "A"

INSTRUCTIONS

"Documents" or "records" mean every writing and record of every type and description in the possession, custody or control of New Mexico Potash Corporation whether prepared by you or otherwise, which is in your possession or control or known by you to exist, including but not limited to, all drafts, correspondence, memoranda, handwritten notes, notes, minutes, entries in books of accounting, computer print-outs, tapes and records of all types, minutes of meeting, studies, contracts, agreements, books, pamphlets, schedules, pictures and voice recordings, videotapes and every other device or medium on which, or for which information of any type is transmitted, recorded or pre-served and whether or not such documents or records are marked or treated as confidential or proprietary. The term "document" also means a copy where the original is not in possession, custody or control of the company or corporation to whom this request is addressed, and every copy of the document where such copy is not an identical duplicate of the original, all things similar to any of the foregoing, however denominated by the parties.

DOCUMENTS TO BE PRODUCED

1. All reports made by an employee of the BLM of any investiga-tion or inspection performed dealing with the proximity of underground mine workings for potash to the well bores of any drilling, producing or plugged and abandoned oil and/or gas wells located within the KPLA in Eddy and Lea Counties, New Mexico.

2. All reports made by an employee of the BLM of any investiga-tion or inspection performed dealing with underground mining opera-tions for potash that have resulted in mining operations being con-

ducted up to or through the well bore of drilling, producing or plugged and abandoned oil and/or gas wells.

3. All reports made by an employee of the BLM, including any chemical analysis performed by or at the direction of that employee, of any investigation or inspection of oil and/or gas seeps or migrations found within any underground potash mine workings located in Eddy or Lea Counties, New Mexico.

4. All reports made by an employee of the BLM of any investigations, inspections or studies performed with regard to the quality of potash being mined and the economics of such operations.

5. All reports made by an employee of the BLM of any investigations, inspections or studies performed with respect to the feasibility of conducting oil and/or gas exploration and potash mining in close proximity to each other.

6. All reports made by an employee of the BLM of any investigations, inspections or studies performed with respect to the efficiency of present potash mining practices.

7. All reports made by an employee of the BLM of any study performed dealing with a determination or calculation of potash reserves generally within the KPLA in Eddy and Lea Counties, New Mexico or done specifically dealing with the reserves for each individual potash mine located in Eddy and Lea Counties, New Mexico.

8. All reports made by an employee of the BLM of any study dealing with the economics of potash mining in Eddy and Lea Counties, New Mexico.

9. All reports, maps or written documents of any kind submitted to or in the possession of the BLM dealing with the proximity of underground mine workings for potash to the well bores of any drill-

ing, producing or plugged and abandoned oil and/or gas wells located within the KPLA in Eddy and Lea Counties, New Mexico.

10. All reports, maps or written documents of any kind submitted to or in the possession of the BLM and prepared by a person or persons other than employees of the BLM dealing with underground mining operations for potash that have resulted in mining operations being conducted up to or through the well bores of drilling, producing or plugged and abandoned oil and/or gas wells.

11. All reports, maps or written documents of any kind submitted to or in the possession of the BLM and prepared by a person or persons other than employees of the BLM dealing with oil and/or gas seeps or migrations, including any chemical analysis performed in connection therewith, found within any underground potash mine workings located in Eddy or Lea Counties, New Mexico.

12. All reports, maps or written documents of any kind submitted to or in the possession of the BLM and prepared by a person or persons other than employees of the BLM dealing with the quality of potash being mined and the economics of such operations.

13. All reports, maps or written documents of any kind submitted to or in the possession of the BLM and prepared by a person or persons other than employees of the BLM dealing with the feasibility of conducting oil and/or gas exploration and potash mining in close proximity to each other.

14. All reports, maps or written documents of any kind submitted to or in the possession of the BLM and prepared by a person or persons other than employees of the BLM dealing with the efficiency of present potash mining practices.

15. All reports, maps or written documents of any kind submitted to or in the possession of the BLM and prepared by a person or persons other than BLM employees dealing with a determination or calculation of potash reserves generally within the KPLA in Eddy and Lea Counties, New Mexico or done specifically dealing with the reserves for each individual potash mine located in Eddy and Lea Counties, New Mexico.

16. All reports, maps or written documents of any kind submitted to or in the possession of the BLM and prepared by a person or persons other than BLM employees dealing with the economics of potash mining in Eddy and Lea Counties, New Mexico.

17. Maps of mine workings and surface installations for each potash mine in Eddy and Lea Counties as filed for each of the last ten (10) years.

18. Records of core analyses filed by any potash lessee drilled in Sections 14, 11, 2 and 1, Township 22 South, Range 31 East, and Sections 36, 34, 25, 24 and 13, Township 21 South, Range 31 East, and Section 7, Township 21 South, Range 32 East, Eddy and Lea Counties, New Mexico.

19. Location of, date of drilling and any core analyses of, all core holes drilled within the KPLA located in Eddy and Lea Counties, New Mexico.

20. A detailed map of all barren areas as they are presently reported by any potash mine within the KPLA located in Eddy and Lea Counties, New Mexico.

RETURN OF SERVICE

STATE OF NEW MEXICO)
: ss.
COUNTY OF _____)

I, _____, being duly sworn, upon oath state: I am not less than 18 years of age and not a party to this action, and I served the within subpoena by delivering a copy thereof to the following person herein named in _____ County, New Mexico on the date hereinafter set out, as follows:

_____ on _____, 1992.

_____

SUBSCRIBED AND SWORN TO before me this ___ day of _____, 1992.

My commission expires:

_____

_____
Notary Public

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 10[illegible]
ORDER NO. R-9[illegible]

APPLICATION OF YATES PETROLEUM CORPORATION FOR AUTHORIZATION TO DRILL, EDDY COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 19, 1992, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 20th day of March, 1992, the Division Director, having considered the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) At the time of the hearing, this case was consolidated with Division Case Nos. 10447, 10448 and 10449 for the purpose of testimony.

(3) The applicant in this matter, Yates Petroleum Corporation (Yates), seeks approval to drill its Graham "AKB" State Well No. 3, within the "Designated Potash Area" pursuant to all applicable rules and procedures governing said area as promulgated by Division Order No. R-111-P. The proposed well is to be located at a standard oil well location 660 feet from the North line and 1650 feet from the East line (Unit B) of Section 2, Township 22 South, Range 31 East, to test the Delaware formation at an approximate depth of 8500 feet, Eddy County, New Mexico. Lot 2, (the NW/4 NE/4 equivalent) of said Section 2 is to be dedicated to said well forming a 39.81-acre oil spacing and proration unit for the Undesignated Lost Tank-Delaware Pool

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(4) New Mexico Potash Corporation, owner of the state potash lease underlying all of Section 2, appeared at the hearing through counsel and opposed the application on the basis that there is a Life of Mine Reserve designation, ("LMR"), covering Section 2 and that oil and gas operations are prohibited within LMR areas under the provisions of Oil Conservation Commission Order R-111-P.

(5) Order R-111-P prohibits drilling operations within an LMR and within a buffer zone around an LMR, which is any location within one-half mile of the LMR, unless the oil and gas operator and the mine operator mutually agree to permit drilling.

(6) Under R-111-P, mine operators file LMR designation maps with the State Land Office ("SLO") and with the U.S. Bureau of Land Management. Section 2 is on State lands and the only agency involved is the SLO.

(7) *Yates characterized the application in this case as a challenge to the LMR designation in Section 2 by New Mexico Potash, and in the alternative argued that the LMR is not established until approved by the SLO.*

FINDING: The NMOCD does not have the authority or jurisdiction to review LMR designations and determine if they are supported by geologic data.

(8) *The order does not clearly specify the process by which the agencies approve the LMR designation. New Mexico Potash argued that the filing of the Map creates the LMR, and that the SLO does not approve the LMR designation. There is no provision in R-111-P for any person, other than the SLO, to challenge the geologic basis for designation an LMR, and the designation of an LMR effectively deprives the owner of oil and gas interests the right to develop those interests without any forum or opportunity to be heard. Such interpretation could raise constitutional questions about the validity of R-111-P.*

R-111-P provides that for wells on State Lands, the Division shall inquire of the SLO as to whether the lands involved are within an LMR.

FINDING: The determination of whether specific State lands are within an LMR is within the exclusive authority of the SLO, and such a determination by the SLO shall be binding upon the Division.

(9) Information filed with the SLO by the mine operator is confidential and not subject to inspection by the Division or any other party.

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(10) *Pursuant to R-111-P, the Division examiner and Counsel, in the presence of counsel for the parties, requested a determination from the Oil, Gas and Minerals Division of the SLO as to whether an LMR existed in Section 2. The SLO provided the following information:*

(a) an LMR designation exists which includes most of Section 35, Township 21 South, Range 31 East, NMPM, Eddy County, New Mexico, (the Section immediately north of Section 2).

(b) New Mexico Potash Corporation filed with the State Land Office on January 16, 1992 an amendment to the LMR designation, pursuant to Rule G(a) of R-111-P, which includes most of said Section 2.

(c) By letter dated February 10, 1992 to New Mexico Potash Corporation, the State Land Office acknowledged receipt of the updated LMR, gave notification that the updated LMR could not be approved with the information received and requested additional supporting data to show that sufficient mineral deposits exist within the amended LMR area to support the designation.

FINDING: The SLO has not designated the amended LMR, and therefore an LMR does not yet exist in Section 2, but an LMR designation does exist in Section 35.

(11) This location is within the 1/2-mile buffer zone of the existing LMR and further, since the potash lessee has not mutually agreed to allow Yates to drill its proposed Graham "AKB" State Well No. 3, this application was dismissed at the hearing.

IT IS THEREFORE ORDERED THAT:

Case No. 10446 is hereby dismissed as of the date of the hearing.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

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STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 10446
ORDER NO. R-9650

APPLICATION OF YATES PETROLEUM CORPORATION FOR AUTHORIZATION TO DRILL, EDDY COUNTY, NEW MEXICO

DRAFT

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 19, 1992, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this _____ day of March, 1992, the Division Director, having considered the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) At the time of the hearing, this case was consolidated with Division Case Nos. 10447, 10448 and 10449 for the purpose of testimony.

(3) The applicant in this matter, Yates Petroleum Corporation (Yates), seeks approval to drill within the "Designated Potash Area" pursuant to all applicable rules and procedures governing said area, as promulgated by Division Order No. R-111-P. The proposed well, its Graham "AKB" State Well No. 3, is to be located at a standard oil well location 660 feet from the North line and 1650 feet from the East line (Unit B) of Section 2, Township 22 South, Range 31 East, to test the Delaware formation at an approximate depth of 8500 feet, Eddy County, New Mexico. Lot 2 of said Section 2 is to be dedicated to said well forming a 39.81-acre oil spacing and proration unit for the Undesignated Lost Tank-Delaware Pool. (the NW/4 NE/4 equivalent)

(4) New Mexico Potash Corporation, owner of the state potash lease underlying all of Section 2 appeared at the hearing through their general counsel in opposition to this case.

(5) Certain issues pertaining to the existence of boundaries and designation of a "Life-of-Mine Reserve" (LMR) in and adjacent to said Section 2 were argued by legal representatives from both Yates and the potash lessee.

(6) To answer portions of the aforementioned arguments, consultation with the Oil, Gas and Minerals Division of the State Land Office (SLO), being the appropriate state agency to review and validate LMRs on state lands, pursuant to Rule G of Order No. R-111-P, became necessary and was conducted off-the-record under strict guidelines as not to violate the confidentiality of such information under Section 19-1-2.1 NMSA, 1978, whereby it was determined that:

(a) a pre-existing LMR covering most of Section 35, Township 21 South, Range 31 East, NMPM, Eddy County, New Mexico placed the NE/4 of said Section 2 within its "buffer zone" [Rule G(e)(3)(b)];

(b) New Mexico Potash Corporation filed with the State Land Office on January ____, 1992 an amended LMR, pursuant to Rule G(a) of R-111-P, to include most of said Section 2; and,

(c) by letter dated February 10, 1992 to New Mexico Potash Corporation, the State Land Office acknowledged receipt of the updated LMR, gave notification that the updated LMR could not be approved with the information received and requested additional supporting data.

(7) New Mexico Potash Corporation argued that the State Land Office has not authority under Rule G of R-111-P to approve and LMR area and that the State Land Office only acts in verifying and mapping out the LMRs submitted by the potash lessee.

(8) This space for rent!!

(9) Since this location, however, was within the 1/2-mile buffer zone of the pre-existing LMR and further, since the potash ~~lessee~~ has not mutually agreed to allow Yates to drill its proposed Graham "AKB" State Well No. 3, this application was dismissed at the hearing.

IT IS THEREFORE ORDERED THAT:

Case No. 10446 is hereby dismissed as of the date of the hearing.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

LAW OFFICES

LOSEE, CARSON, HAAS & CARROLL, P. A.

ERNEST L. CARROLL
JOEL M. CARSON
JAMES E. HAAS
A. J. LOSEE
—
DEAN B. CROSS
MARY LYNN BOGLE

300 YATES PETROLEUM BUILDING
P. O. DRAWER 239
ARTESIA, NEW MEXICO 88211-0239

TELEPHONE
(505) 746-3505

TELECOPY
(505) 746-6316

March 4, 1992

VIA FEDERAL EXPRESS

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Re: Applications of Yates Petroleum Corporation for Permits to Drill, Eddy County, New Mexico/OCD Case Nos. 10446, 10447, 10448, 10449

Dear Mr. LeMay:

Enclosed please find an original plus three copies of a Subpoena Duces Tecum that we ask be issued in conjunction with Yates Petroleum Corporation's Application for Permits to Drill in the above-referenced case numbers.

Your assistance in expeditiously issuing these would be most appreciated. A federal express envelope and pre-addressed label is enclosed for their return.

Very truly yours,

LOSEE, CARSON, HAAS & CARROLL, P.A.

Ernest L. Carroll

ELC:kth
Enclosures

xc: Bob Stovall
Yates Petroleum Corporation

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATION OF
YATES PETROLEUM CORPORATION FOR
PERMITS TO DRILL, EDDY COUNTY,
NEW MEXICO.

CASE NOS. 10446, 10447,
10448, 10449

SUBPOENA DUCES TECUM

TO: Bob Lane
New Mexico Potash Corporation
P. O. Box 610
Hobbs, NM 88241

Or Such Other Official of the New Mexico Potash Corporation in Whose Possession or Control the Hereinafter Requested Documents Presently Remain

Pursuant to Section 70-2-8, M.M.S.A. (1978) and the New Mexico Oil Conservation Division Rule 1211, YOU ARE HEREBY COMMANDED to appear at the place, day and time specified below and produce for inspection and copying the documents described on the attached Exhibit A.

PLACE

Law Offices of Losee, Carson, Haas & Carroll, P. A.
105 S. Fourth Street, 300 Yates Petroleum Bldg.
Artesia, New Mexico 88210

DAY AND TIME

March 12, 1992, during office hours as reasonably agreed upon by the parties

This subpoena is issued on the applications of Yates Petroleum Corporation, by and through its attorneys, Losee, Carson, Haas & Carroll, P. A., P. O. Drawer 239, Artesia, New Mexico, 8821-0239.

DATED this 5th day of March, 1992.

NEW MEXICO OIL CONSERVATION DIVISION

By: _____

Subpoena

EXHIBIT "A"

INSTRUCTIONS

"Documents" or "records" mean every writing and record of every type and description in the possession, custody or control of New Mexico Potash Corporation whether prepared by you or otherwise, which is in your possession or control or known by you to exist, including but not limited to, all drafts, correspondence, memoranda, handwritten notes, notes, minutes, entries in books of accounting, computer print-outs, tapes and records of all types, minutes of meeting, studies, contracts, agreements, books, pamphlets, schedules, pictures and voice recordings, videotapes and every other device or medium on which, or for which information of any type is transmitted, recorded or pre-served and whether or not such documents or records are marked or treated as confidential or proprietary. The term "document" also means a copy where the original is not in possession, custody or control of the company or corporation to whom this request is addressed, and every copy of the document where such copy is not an identical duplicate of the original, all things similar to any of the foregoing, however denominated by the parties.

1. Produce the complete record of core hole logs of any core hole drilled through the potash zones by New Mexico Potash Corporation, any predecessor or other company if such log or summary thereof is in the possession of New Mexico Potash Corp., including, but not limited to, the written results or interpretations of the logs, all assays performed thereon and economic analysis derived therefrom, in Sections 22, 23, 24, 25, 26, 27, 34, 35, and 36 of Township 21 South, Range 31 East, and Section 2 of Township 22 South, Range 31 East.