EXHIBIT A-amended after 7-19-02 hearing
to Application to Amend Rule 118 (Hydrogen Sulfide)

RULE: 19.15.2.52 Hydrogen Sulfide Gas (Hydrogen Sulfide)

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19.15.2.52 Hydrogen Sulfide Gas (Hydrogen Sulfide)

A. In General. Hydrogen sulfide gas (known by its chemical abbreviation " H_2S" ~~or as "sulfurated hydrogen" or "hydrosulfuric acid"~~) is a flammable, poisonous gas that may occur naturally as a component of crude petroleum and natural gas. The gas has a distinct and characteristic odor of rotten eggs but due to olfactory fatigue may not be sensed by the human sense of smell.

COMMENT: Greg Nibert: Would like this section redrafted as follows: "The intent of this Rule is to provide for the public safety in areas where hydrogen sulfide gas, H2S, in concentrations greater than those listed below are present."

COMMENT: Marbob Energy Corp.: The phrases "sulfurated hydrogen" and "hydrosulfuric acid" should be stricken because they are not commonly used in industry.

COMMENT: IPANM: The last sentence should be stricken and replaced with the sentence suggested by Mr. Nibert, above.

B. ~~Scope.~~ This Section provides for public safety in areas where hydrogen sulfide gas (H_2S) may exist ~~in concentrations greater than 100 ppm~~ or in a potentially hazardous volume. This Section applies to any person, operator or facility subject to the jurisdiction of the Division, including, but not limited to, any person, operator or facility engaged in drilling, stimulating, injecting into, completing, working over or producing any oil, natural gas or carbon dioxide well or any person, operator or facility engaged in gathering, transporting, storing, processing or refining of crude oil, natural gas or carbon dioxide. ~~Exempt from this rule are~~ surface waste management facilities permitted pursuant to 19 NMAC 15.I.711. [OCD replacement language, August 16, 2002]

~~B. Scope. This Section provides for public safety in areas where hydrogen sulfide gas (H_2S) may exist in concentrations greater than 100 ppm or in a potentially hazardous volume. This Section applies to any person, operator or facility subject to the jurisdiction of the Division, including, but not limited to, any person, operator or facility engaged in drilling, stimulating, injecting into, completing, working over or producing any oil, natural gas or carbon dioxide well or any person, operator or facility engaged in gathering, transporting, storing, processing or refining of crude oil, natural gas or carbon dioxide. Exempt from this rule are surface waste management facilities permitted pursuant to 19 NMAC 15.I.711.~~

COMMENT: Controlled Recovery Inc.: Facilities subject to Rule 711 should not be exempt from the requirements of this rule. The permits of some 711 facilities contain more stringent requirements than those set forth for other facilities in the proposed rule, and no evidence in the record justifies these more stringent requirements.

COMMENT: Greg Nibert, IPANM: The word "may" in the first sentence should be changed to "does" so that rule applies only were H2S is present, not where it "may" be present.

COMMENT: New Mexico Oil and Gas Association: Facilities subject to Rule 711 should not be exempt from the requirements of this rule; they should be subject to the same standards as the rest of the industry and had inadequate public notice and were not involved in the rulemaking process.

COMMENT: Loco Hills Water Disposal Co.: Facilities subject to Rule 711 should not be exempt from the requirements of this rule. Requirements imposed upon 711 facilities are more stringent than applied to the rest of the industry through the proposed new Section; disposal facilities should be subject to the same standards as the rest of the industry.

RESPONSE: Oil Conservation Division: The Oil Conservation Division responded to these comments by noting that an original draft of the rule covered all regulated facilities, but that during the hearing of July 19, 2002 questions were raised by the Commission on this point. The Division has concluded that surface waste management facilities should continue to be regulated separately under the current Rule 711 because these facilities are fundamentally different in their operating characteristics than the remainder of the industry; the proposed rule is a public safety rule to address short term and acute consequences of exposure to hydrogen sulfide. Surface waste management facilities regulated pursuant to Rule 711 have the ability to generate hydrogen sulfide in quantities that are harmful to public health and cause long term or chronic consequences, but whose consequences cannot be precisely calculated and the safe radius of exposure to long term exposure is unknown. Current Rule 711 imposes fence line monitoring for the protection of public health. In addition, the Division proposes to clarify the intent of the proposed Section is to apply to situations where a potentially hazardous volume is present or where hydrogen sulfide may exist in concentrations greater than 100 ppm.

C. Definitions (specific to this Section).

1. ANSI. The acronym "ANSI" means the american national standards institute.

COMMENT: Greg Nibert, IPANM: This definition should be stricken because the API web page clearly indicates that the standards to be used only as guideline, not as regulations. (IPANM) The publications must be purchased along with technical supplements. Independents do not own these documents and instead rely on practices common to a given area. When the Bureau of Land Management proposed using API guidelines, even major companies found that they did not own the publications. API standards are "guilt edged".

2. API. The acronym "API" means the american petroleum institute.

COMMENT: Greg Nibert, IPANM: This definition should be stricken because the API web page clearly indicates that the standards to be used only as guideline, not as regulations.

3. ASTM. The acronym "ASTM" means the american society for testing and materials.

COMMENT: Greg Nibert, IPANM: This definition should be stricken because the API web page clearly indicates that the standards to be used only as guideline, not as regulations.

4. Dispersion Technique. A "dispersion technique" is a mathematical representation of the physical and chemical transportation characteristics, dilution characteristics and transformation characteristics of H_2S gas in the atmosphere.

5. Escape Rate. The "escape rate" is the maximum volume (Q) that is used to designate the possible rate of escape of a gaseous mixture containing H_2S. The escape rate is calculated using the maximum daily rate of the gaseous mixture produced or the best estimate thereof. For a natural gas well, the escape rate shall be calculated by using the current daily absolute open flow rate against atmospheric pressure. For an oil well, the escape rate shall be calculated by multiplying the producing gas/oil ratio by the maximum daily production rate or best estimate thereof. For an oil or natural gas well drilled in a developed area, the escape rate may be determined by using offset wells completed in the interval in question, or using some other reasonable means to calculate the escape rate. **For wildcat wells subparagraph C.13.d shall apply.** For facilities or operations not mentioned, the escape rate shall be calculated using the actual flow of gaseous mixture through the facility or operation. [OCD suggested replacement language, August 16, 2002]

~~5. Escape Rate. The "escape rate" is the maximum volume (Q) that is used to designate the possible rate of escape of a gaseous mixture containing H_2S. The escape rate is calculated using the~~

~~maximum daily rate of the gaseous mixture produced or the best estimate thereof. For a natural gas well, the escape rate shall be calculated by using the current daily absolute open flow rate against atmospheric pressure. For an oil well, the escape rate shall be calculated by multiplying the producing gas/oil ratio by the maximum daily production rate or best estimate thereof. For an oil or natural gas well drilled in an undeveloped area (wildcat well) the escape rate may be determined by using offset wells completed in the interval in question, or using some other reasonable means to calculate the escape rate. For wildcat wells subparagraph C.13.d shall apply. For facilities or operations not mentioned, the escape rate shall be calculated using the actual flow of gaseous mixture through the facility or operation.~~

COMMENT: Marbob Energy Corp.: The escape rate should not be calculated using the daily absolute open flow rate against atmospheric pressure. The only time the absolute open flow rate can be calculated is when a deliverability test is performed. Later, the reservoir pressure and performance coefficient decrease and the original deliverability equation do not represent current well deliverability. Moreover, deliverability tests are difficult to achieve in wells with low permeability, and most gas wells in New Mexico have low permeability. Thus, the third sentence should be stricken from this paragraph.

D. 1. b.

6. GPA. The acronym "GPA" means the gas processors association.

COMMENT: Greg Nibert, IPANM: This definition should be stricken because the API web page clearly indicates that the standards to be used only as guideline, not as regulations.

7. LEPC. The acronym "LEPC" means the local emergency planning committee established pursuant to the emergency planning and community right-to-know act, 42 U.S. C. § 11001.

COMMENT: Greg Nibert, IPANM: This definition should be stricken because the API web page clearly indicates that the standards to be used only as guideline, not as regulations.

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8. NACE. The acronym "NACE" refers to the national association of corrosion engineers.

COMMENT: Greg Nibert, IPANM: This definition should be stricken because the API web page clearly indicates that the standards to be used only as guideline, not as regulations.

9. PPM. The acronym "ppm" means "parts per million" by volume.

10. Potentially Hazardous Volume (hereinafter referred to as a "potentially hazardous volume" or by the acronym "PHV") means the volume of hydrogen sulfide gas of such concentration that:

a. the 100 ppm radius of exposure includes any public area as defined herein;

COMMENT: Greg Nibert, IPANM: Would like to revise this clause to read as follows: "the 100 ppm radius of exposure in excess of 50 feet includes any public area as defined herein except a public road".

*

b. the 500 ppm radius of exposure includes any public road as defined herein; or

e

COMMENT: Greg Nibert, IPANM: Would like to revise this clause to read as follows: " the 500 ppm radius of exposure is greater than 50 feet includes any public road as defined herein; or

reject out of hand

c. the 100 ppm radius of exposure is in excess of 3,000 feet.

11. Public Area. A "public area" is any dwelling, office, place of business, church, school, hospital, school bus stop, government building, or any portion of a park, city, town, village, or other similar area where members of the public may reasonably be expected to be present.

~~other similar~~ area

COMMENT: Greg Nibert, IPANM: The word "occupied" should be inserted before "dwelling," "place of business" and "government building." The references to "city, town, village" should be deleted and facilities "directly involved in oil and gas production" should be excluded.

COMMENT: Harvard Petroleum Corp.: The public area definition is too broad. Would prefer narrower language from the IPANM draft.

12. Public Road. A "public road" is any federal, state, municipal or county road or highway or postal route.

COMMENT: Greg Nibert, IPANM: Would like to substitute his own definition of "public road" that restricts the definition to roads under jurisdiction of a government "for maintenance or public use" and specifies that a public road is not a "private road, two track, ranch or oil and gas lease road."

COMMENT: Harvard Petroleum Corp.: The public road definition is too broad. Would prefer narrower language from the IPANM draft.

13. Radius of Exposure. The radius of exposure (hereinafter referred to as "radius of exposure" or "ROE") is an imaginary circle constructed around a point of escape the radius of which is calculated using the following Pasquill-Gifford derived equation, or by such other method as may be approved by the division:

a. For determining the 100-ppm radius of exposure: $X = [(1.589)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$

b. For determining the 500-ppm radius of exposure: $X = [(0.4546)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$

Where: X= radius of exposure in feet: hydrogen sulfide concentration = decimal equivalent of the mole or volume fractions of hydrogen sulfide in the gaseous mixture; Q= maximum volume of gas determined to be available for escape in cubic feet per day (corrected for standard conditions of 14.73 psia and 60°F).

c. Where multiple sources of hydrogen sulfide are present (e.g. wells, treatment equipment, flow lines, etc.), the radius of exposure may encompass a larger area than would otherwise be calculated using a radius of exposure computation for each component part.

COMMENT: Greg Nibert, IPANM: This subparagraph should be deleted because the only source of the H2S is the well; it may appear in flow lines, treating equipment or water tanks, but it came originally from the well.

d. For a well being drilled in an area where insufficient data exits to calculate a radius of exposure, but where hydrogen sulfide could reasonably be expected to be present in concentrations in excess of 100 ppm in the gaseous mixture, a 100 ppm radius of exposure equal to 3,000 feet shall be assumed.

COMMENT: Greg Nibert: This subparagraph should be deleted or revised to permit a lesser radius of exposure upon application and justification.

COMMENT: IPANM: This paragraph should be deleted as it is subject to interpretation. Hydrogen sulfide may "reasonably expected" to be found anywhere and allows decisions to be made without objectivity or science. "Regulatory employees" have to ask where the hydrogen sulfide is located but they never ask the operators in the field who know where the gas exists. If not deleted, the paragraph should be revised to permit a lesser radius of exposure upon application and justification.

COMMENT: Marbob Energy Corp.: Assuming a 3,000 foot radius of exposure in such wells is not realistic and far too conservative. A radius of exposure of 3,000 feet is extremely unlikely in New Mexico. Most serious well control events in southeastern New Mexico occur in the Wolfcamp, Atoka and Morrow formations, but those zones contain low concentrations of hydrogen sulfide gas and the chances that a radius of exposure of 100 ppm 3,000 feet from such a well during a well control event are slim to none. The Upper Penn formation in the Indian Basin area has relatively high hydrogen sulfide concentrations, but reservoir depletion and water production in that area ~~will restrict flows to~~ 23 to 45 mmcf/d, and make a 3,000 foot radius of exposure of 100 ppm unlikely. A more reasonable assumption would be 1,500 feet.

D. Determination of Hydrogen Sulfide Risk.

1. Determination of Hydrogen Sulfide Concentration.

a. Each person, operator or facility to which this Section applies shall determine the hydrogen sulfide concentration within each of its operations or systems. A representative sample or previous process knowledge for each system or operation may be used for testing provided that the person, operator or facility can demonstrate that the concentration derived from a test or process knowledge of the representative sample is reasonably representative of the hydrogen sulfide concentration within the operation, pool or system.

b. The tests referred to in the previous Subparagraph shall be conducted in accordance with applicable ASTM or GPA standards or by other methods approved by the division.

c. If a representative sample from a system or operation was tested within one (1) year of the effective date of this Section, new testing shall not be required; provided, however, new testing shall not be required for a producing well that was tested at any time prior to the effective date of this Section. [Division recommended change <>]

~~D. Determination of Hydrogen Sulfide Risk.~~

~~1. Determination of Hydrogen Sulfide Concentration.~~

~~a. Each person, operator or facility to which this Section applies shall determine the hydrogen sulfide concentration within each of its operations or systems. A representative sample for each system or operation may be used for testing provided that the person, operator or facility can demonstrate that the concentration derived from a test of the representative sample is reasonably representative of the hydrogen sulfide concentration within the operation or system.~~

~~b. The tests referred to in the previous Subparagraph shall be conducted in accordance with applicable ASTM or GPA standards or by other methods approved by the division.~~

~~c. If a representative sample from a system or operation was tested within one (1) year of the effective date of this Section, new testing shall not be required; provided, however, new testing shall not be required for a producing well that was tested at any time prior to the effective date of this Section.~~

COMMENT: Greg Nibert, IPANM: The words "facility" and "system" should be deleted because they are not defined.

COMMENT: IPANM: The rule should be broadened to permit a determination at the pool or field level. The words "system" and "facility" could be interpreted to mean an entire field or township "at the discretion of the local OCD employee" and notes that the first persons to be exposed to hydrogen sulfide are the operator and its employees so they have an incentive to insure that the gas is not present.

COMMENT: Harvard Petroleum Corp.: This subsection would be acceptable if it were amended to permit an operator to test a field or pool rather than an individual operation or system. Many production

pools exist which do not contain hydrogen sulfide and therefore individual testing of wells producing from those pools is unnecessary.

RESPONSE: Oil Conservation Division: The Division responds that it was not the intent of the Division that each well be tested if operating and process knowledge exists on a formation or pool basis. The Division proposes the amended language set forth above to address this issue.

d. The Division may disapprove the test methodology and require additional testing if the testing methodology did not conform to the requirements of this Section.

COMMENT: Greg Nibert, IPANM: This requirement should be deleted because it permits disapproval "without objective parameters." IPANM complains that an operator could be required to test multiple times at the discretion of "an OCD employee" and does not permit the use of "new technology."

2. Tested Concentrations Below 100 ppm. If the testing described in the previous Paragraph determines that the hydrogen sulfide concentration in a given operation or system is less than 100 ppm, no further actions are required pursuant to this Section.

COMMENT: Greg Nibert, IPANM: The word "system" should be deleted because it is not defined.

3. Tested Concentrations Above 100 ppm; Calculation of the Radius of Exposure.

a. If the testing described in Paragraph 1 of this Subsection determines that the concentration of hydrogen sulfide in a gaseous mixture is 100 ppm or greater, then the person, operator or facility must calculate the radius of exposure pursuant to this Section.

b. If calculation of the radius of exposure reveals that a potentially hazardous volume may be present, the person, operator or facility shall provide the results of the testing and the resulting radius of exposure determinations to the division electronically in a generally accepted ~~electronic format~~ that is compatible with the division's systems before commencing operations or, for existing facilities, within 180 days of the effective date of this Section. Operators may petition the Division for an extension of the submission date, or for an exception to the electronic submission requirement pursuant to subsection J of this Section.

COMMENT, IPANM: Plans and reports must be submitted electronically, but some independent operators are not computer literate and this would be a significant burden.

RESPONSE: Oil Conservation Division: The Division responded to concerns raised during the hearing that the submission schedules in subsections D, F and G conflict. The Division responded that its intent that subsection F operations (drilling, workover operations) should have a plan in place before commencement of operations, and Subsection G facilities (production) to have 180 days to develop contingency plans and one year to place the required equipment, signs, fencing etc. For new subsection G facilities, the intent was to require that such facilities comply before commencement of operations. As a result, the Division proposed the foregoing amendments to the original draft presented at the hearing.

~~b. If calculation of the radius of exposure reveals that a potentially hazardous volume may be present, the person, operator or facility shall provide the results of the testing and the resulting radius of exposure determinations to the division electronically in a generally accepted electronic format that is compatible with the division's systems.~~
~~within 180 days of~~ before ~~commencing operations or, for existing facilities, within 180 days of the effective date of this Section. An Operators may petition the Division for an extension of the submission~~

~~date, or for an exception to the electronic submission requirement 180-day reporting period pursuant to subsection J of this Section.~~

COMMENT: Greg Nibert: The word "facility" should be deleted because it is not defined. Operators should not be required to make submissions electronically; it should only be an option --- some independent operators may not be able to submit reports electronically.

COMMENT, IPANM: Plans and reports must be submitted electronically, but some independent operators are not computer literate and this would be a significant burden.

4. Recalculation. If operations change or production alterations are made, then recalculations may be made through application of generally accepted engineering principles and generally accepted operating practices. If recalculations indicate that a H2S concentration has become greater than 100 ppm or a 25% or greater increase in the actual volume fraction of hydrogen sulfide has occurred in a given operation or facility, the person, operator or facility shall recalculate the radius of exposure and, if the ROE reveals that a PHV may be present, submit the results to the division electronically in a generally accepted electronic format that is compatible with the division's systems.

~~4. Recalculation. If operationsal change or production alterations are made that, then recalculations may be made through application of generally accepted engineering principles and generally accepted operating practices.. If recalculations indicate that a H_2S concentration has become greater than 100 ppm or a 25% or greater increase in the actual volume fraction of hydrogen sulfide may has occured in a given operation or facility, the person, operator or facility shall recalculate the radius of exposure and, if the ROE reveals that a PHV may be present, submit the results to the division electronically in a generally accepted electronic format that is compatible with the division's systems.~~

COMMENT: Greg Nibert: Operators should not be required to make submissions electronically; it should only be an option --- some independent operators may not be able to submit reports electronically.

COMMENT: Marbob Energy Corp.: Operators should not be required to recalculate the 100 ppm radius of exposure if the potentially hazardous volume threshold of 100 ppm is not reached. This paragraph appears to require such a recalculation if only a 25% increase results even if the potentially hazardous volume remains below 100 ppm.

COMMENT, IPANM: Plans and reports must be submitted electronically, but some independent operators are not computer literate and this would be a significant burden.

RESPONSE: The Division responded to questions about submission of the results of recalculation where the results show that a potentially hazardous volume is absent, the Division proposes to clarify its original draft as set forth above. The Division did not respond to the comments of Mr. Nibert and Marbob Energy.

E. H_2S Contingency Plan.

1. In General. An H_2S contingency plan is a written document that provides a plan of action that will be used to alert and protect persons at risk in the event of a potentially significant release of hydrogen sulfide gas. The Plan must be developed in accordance with the following paragraphs.

COMMENT: Greg Nibert, IPANM: This entire paragraph should be eliminated because it places an unnecessary burden on operators without any corresponding gain in public safety. The Bureau of Land Management already requires a contingency plan, and this paragraph would require a duplicate plan be prepared. The present Rule 118 should be used instead of this language.

COMMENT: IPANM: More extensive plans may be required inside of municipalities but not in their extraterritorial zones. Operators have had 80 years experience dealing with hydrogen sulfide, and writing an emergency response plan will not improve response and will not ensure public safety; only consultants will benefit from the requirement. ON federal lands, the requirement will apparently require operators to submit two plans, as the BLM's Onshore Order 6 is less stringent. Also, these requir5ements duplicate requirements in existing Department of Public Safety plans that are already written by the department of Public Safety. The operators are required to decide what actions to take and which roads to close, but the operator lacks this authority. The telephone numbers will require constant updating. The requirement that agencies have input on the plan will delay implementation of the plan by years because of the coordination required. IPANM suggests that the current Rule 118(E) be used instead of this subsection.

COMMENT: Harvard Petroleum Corp.: The proposed contingency plans would be unnecessary in most cases and extremely onerous to prepare and submit. The contingency plan requirement should be significantly reduced or revised or returned to the requirements in present Rule 118(E)(2).

2. When Required. An H_2S contingency plan must be prepared whenever a potentially hazardous volume of hydrogen sulfide ~~may be~~ present.

3. Input of Emergency Response Authorities and the Division. The person, operator or facility shall ~~coordinate~~ the proposed H_2S contingency plan with the division, the New Mexico department of public safety (i.e. the New Mexico state police), and as appropriate the local emergency planning committee, the county sheriff, city or municipal police, and/or police and fire departments. ~~A statement in the contingency plan indicating which agencies have been notified shall suffice as proof of coordination.~~

~~3. Input of Emergency Response Authorities and the Division. The person, operator or facility shall seek input on the proposed H_2S contingency plan from the division, the New Mexico department of public safety (and as appropriate the New Mexico state police), the local emergency planning committee, the county sheriff, city or municipal police, and/or police and fire departments.~~

COMMENT: Pierce Production Co.: shouldn't have to seek input from emergency response authorities outside of cities and city authorities should only have input in an advisory capacity and the nature of their input should be clearly spelled out and the operator should only have to present a letter documenting the efforts made to obtain input.

COMMENT: Marathon Oil Company: The level of input required from emergency response authorities should be clearly specified, particularly if activities occur within a municipality.

COMMENT: Harvard Petroleum Corp.: This paragraph is unnecessary and would place a tremendous burden on operators.

COMMENT: Marbob Energy Corp.: The emergency response authorities are going to be overwhelmed by requests for input by operators if this requirement is imposed. The requirements are redundant of paragraph 4, below, and unnecessary. The requirement will also impose a terrible burden on operators if each agency must be consulted on every plan.

RESPONSE: Oil Conservation Division: Concerns have been voiced with the phrase "shall seek input" because the phrase appeared to be mandatory and ignored the difficulties of obtaining input in remote locations. However, compliance with the New Mexico Hazardous Materials Emergency Response (HMER) Plan is mandatory and the Division is required to coordinate

emergency response. The Division has made changes to clarify that coordination of emergency response is the objective, not obtaining input were input is impossible.

4. Elements.

a. Elements Required for Each Plan:

i. A detailed description of each action to be taken in the event of a release of a potentially hazardous volume of hydrogen sulfide, including an immediate action plan that substantially conforms to paragraph 7.6 of guidelines published by the API in its publication entitled "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide," RP-55, most recent edition;

COMMENT: Marbob Energy Corp.: The API standards referred to are in fact "recommended practices" of API, not a requirement or statute. RP-55 should not be changed into a regulation in this manner. At the very least, RP-55 should be attached.

ii. A call list including the following as applicable:

aa. local supervisory personnel;
bb. county sheriff;
cc. the department of public safety and state police;
dd. city or municipal police;
ee. the appropriate division district office; and
ff. other public agencies as appropriate.

iii. A plat or map detailing the area within the radius of exposure of a potentially hazardous volume; and

iv. A list of the names and telephone numbers of all personnel to be contacted when a release is reported or suspected.

b. Where the 500-ppm radius of exposure encompasses any public road, the person, operator or facility shall include the following additional elements in the H_2S contingency plan:

i. Instructions and procedures for alerting and coordinating with emergency response authorities in the event of a release of a potentially hazardous volume of hydrogen sulfide at any public road; and

ii. A plat or map detailing the area of exposure, including the locations of public roads within the radius of exposure of a potentially hazardous volume;

iii. A plan to divert traffic and safely get existing traffic off the road and out of danger.

c. Where the 100-ppm radius of exposure encompasses any public area, the following additional elements shall be included in the H_2S contingency plan:

i. detailed plans of action to alert and protect persons in the event of a release of a potentially hazardous volume of hydrogen sulfide, including instructions and procedures for alerting persons at risk and emergency response authorities in the event of a release of a potentially hazardous volume of hydrogen sulfide;

ii. a call list including all the persons set forth in Sub subparagraph E(4)(a)(ii), above, and the following:

aa. ambulance services;
bb. hospitals;
cc. county and city fire departments;
dd. doctors;
ee. contractors for supplemental or emergency equipment; and
ff. other public agencies as appropriate.

iii. a statement describing how emergency response actions will be coordinated with the division and the New Mexico state police, consistent with the New Mexico hazardous materials emergency response plan (HMER);

COMMENT: Marbob Energy Corp.: A copy of the HMER plan should be attached to the Rule proposal.

iv. a plat or map detailing the area of exposure, including the locations of private dwellings or residences, public facilities such as schools, businesses, public roads or other similar areas where the public may be reasonably expected to be present within the radius of exposure;

v. the names and telephone numbers of all persons living within the radius of exposure of 100 ppm hydrogen sulfide and contact persons for each public area, such as churches, schools and businesses;

vi. provisions for advance briefing of affected and responsible persons within the radius of exposure. Such advance briefing shall include the hazards and characteristics of hydrogen sulfide, the necessity for an H_2S contingency plan, the possible sources of hydrogen sulfide within the radius of exposure, instructions for reporting a gas leak, the manner in which persons will be notified in the event of an emergency and steps to be taken in an emergency; ~~and~~

~~vii.~~ where the operator can demonstrate that the risk to public safety is minimal such as in remote locations, a simplified a reaction-type plan may be prepared and submitted that provides for mass notification of a hydrogen sulfide leak and for an evacuation of affected areas;

~~vii. in lieu of the previous subparagraph, a reaction-type plan may be prepared and submitted that provides for mass notification of a hydrogen sulfide leak and for an evacuation of affected areas;~~ and

COMMENT: Oil Conservation Division: Another concern voiced to the Division during a conference call was in the contingency plan area. A trade association commented felt that the contingency plans could be interpreted to be very comprehensive with no flexibility for remote operations or in areas where there would be little impact on public safety in the event of a release. The Division agreed it makes sense to treat remote sites differently where appropriate and proposes the foregoing amended language.

viii. additional support information, if applicable, such as the location of emergency evacuation routes, the location of safety and life support equipment, the location of hydrogen sulfide containing facilities, the location of nearby telephones or other means of communication and special instructions for conditions at a particular installation such as local terrain and the effect of various weather conditions.

d. Additional Requirements. The division may impose additional requirements or modify requirements based on site-specific conditions, population density or special circumstances.

5. Submission. For existing subsection G facilities, the H_2S contingency plan shall be submitted to the division electronically in a form that is compatible with the division's systems and to the local emergency planning committee no later than 180 days following submission of the radius of exposure required in Subsection D of this Section. For subsection F operations the H_2S contingency plan may be submitted separately or along with the application for permit to drill (APD) and shall be submitted to the division electronically in a generally accepted electronic format that is compatible with the division's systems before commencement of operations.

~~5. Submission. For existing subsection G facilities~~ ~~the H_2S contingency plan shall be submitted to the division electronically in a form that is compatible with the division's systems and to the local emergency planning committee no later than 180 days following submission of the radius of exposure required in Subsection D of this Section. For subsection F operations the H_2S contingency plan may be submitted separately or along with the application for permit to drill (APD) and may shall be submitted to the division electronically in a generally accepted electronic format that is compatible with the division's systems. before commencement of operations.~~

COMMENT: Greg Nibert: Operators should not be required to make submissions electronically; it should only be an option --- some independent operators may not be able to submit reports electronically.

COMMENT: Marbob Energy Corp.: Some areas do not have a defined local emergency planning committee, making compliance with this subparagraph difficult if not impossible.

COMMENT, IPANM: Plans and reports must be submitted electronically, but some independent operators are not computer literate and this would be a significant burden.

6. Failure to Submit Plan. Failure to submit an H_2S contingency plan when required may result in denial of an application for permit to drill that well, cancellation of an allowable or other appropriate enforcement action.

7. Annual Review, Amendment. The person, operator or facility shall review the H_2S contingency plan on an annual basis, or more frequently if activation of a plan reveals a deficiency or, if changes to processes, concentrations of hydrogen sulfide or other circumstances occur. The person, operator or facility shall submit any amendments to the division electronically in a form that is compatible with the division's systems and to the local emergency planning committee. Reasonable efforts shall be taken to update on an annual basis the names and telephone numbers of persons designated in E.4.c.v. within the 100 ppm radius of exposure.

COMMENT: Greg Nibert: Operators should not be required to make submissions electronically; it should only be an option --- some independent operators may not be able to submit reports electronically.

COMMENT, IPANM: Plans and reports must be submitted electronically, but some independent operators are not computer literate and this would be a significant burden.

8. Retention and ~~On-Site~~ Inspection. An H_2S contingency plan shall be reasonably accessible in the event of a release and maintained on file at all times and shall be available for inspection by the Division.

RESPONSE: Oil Conservation Division: The Division responds to concerns voiced during the hearing that the proposed Section would require placement of contingency plans at flow lines, wells and other unsuitable places by proposing to strike the phrase "on site."

9. Activation Levels. The H_2S contingency plan shall be activated in the event of a release of a potentially hazardous volume of H_2S above the respective thresholds (i.e. 500 ppm radius at any public road, 100 ppm radius at any public area, etc.) or if a sustained concentration of H_2S exceeds 50 ppm at the facility boundary of any facility, well or operation.

~~9. Activation Levels. The H_2S contingency plan shall be activated in the event of a release of a potentially hazardous volume of H_2S above the respective thresholds (i.e. 500 ppm radius at any public road, 100 ppm radius at any public area, etc.) or if a sustained concentration of H_2S exceeds 50 ppm at the property line of any facility, well or operation.~~

COMMENT: Pierce Production Company, Marathon Oil Company: Should not have an activation level at the property line.

addressed

COMMENT: Marbob Energy Corp.: The clause requiring activation of the contingency if the sustained concentration of hydrogen sulfide at the property line reaches 50 ppm should be deleted. The words "sustained" and "property line" are not adequately defined. The contingency plan should only be activated if a potentially hazardous volume is present, not on these more subjective criteria.

addressed

addressed

RESPONSE: Oil Conservation Division: Two operators requested that the language referring to the "property line" be stricken. OCD agrees and proposes that the phrase " facility boundary" be inserted. The term "facility boundary" allows the operator some flexibility in determining the threshold for activation and at the same time provides them with a definite activation number to implement the contingency plan. OCD feels this provides the best protection for the public while allowing operators the flexibility needed to prevent nuisance activation of contingency plans.

no - reasons

F. Protection from Hydrogen Sulfide During Drilling, Workover and Servicing Operations.

COMMENT: Greg Nibert: This subsection should be deleted because it seeks to protect worker safety rather than public safety and is duplicative of OHSA and requirements of the Bureau of Land Management. The provisions of current Rule 118 are more than adequate.

not worker safety

COMMENT, IPANM: This subsection should be deleted because it seeks to protect worker safety rather than public safety and is duplicative of OHSA and requirements of the Bureau of Land Management. The provisions of current Rule 118 are more than adequate. The Division lacks authority to regulate on behalf of employee safety. It is also unclear whether the plan required for drilling is the same plan required earlier in the Section. The requirements for additional requirements under special circumstances are too broad and Division empl0yess are not required to show objective scientific need for the additional equipment. The extra equipment described in the Section cannot be physically placed under most of the rigs used in New Mexico. The requirements to keep track of individuals living within a radius of exposure are too difficult to comply with because people move in and out of these areas. [Stream of consciousness; not connected to any particular section]

COMMENT: Harvard Petroleum Corp.: This subsection appears to apply to all drilling, completion, workover and servicing operations regardless of whether H2S is present or not. However, workers, not the public, inhabit these sites. The requirements set forth in this subsection are unnecessary for the majority of operations that take place where H2S is not present. Some of the requirements are physically impossible for many rigs that operate in New Mexico, and can be extremely costly. Precautions are already taken by operators and their contractors to avoid exposure of the public to H2S. Current Rule 118(C) is sufficient to address any concerns.

Where a

1. API Standards. All drilling, completion, workover and well servicing operations shall be conducted with due consideration to the guidelines published by the API entitled "Recommended Practice for Oil and Gas Well Servicing and Workover Operations Involving Hydrogen Sulfide," RP-68, and "Recommended Practices ~~for Safe~~ Drilling ~~of Wells Containing~~ Hydrogen Sulfide," RP-49, most recent edition.

Contact API

tie to PHV?

and well servicing Operations Involving

COMMENT: Harvard Petroleum Corp.: This paragraph appears to apply to all drilling, completion, workover and servicing operations regardless of whether H2S is present or not.

good point -

COMMENT: Marbob Energy Corp.: The API standards referred to are in fact "recommended practices" of API, not a requirement or statute. RP-68 and RP-49 should not be changed into regulations in this manner.

2. Minimum Standards. At a minimum, and possibly in addition to the foregoing API standards, each drilling, completion, workover and well servicing operation shall also be conducted in accordance with the following:

COMMENT: Harvard Petroleum Corp.: This paragraph appears to apply to all drilling, completion, workover and servicing operations regardless of whether H2S is present or not.

COMMENT: Marbob Energy Corp.: The recommended practices referred to in this paragraph should not be made regulatory requirements.

RESPONSE: Oil Conservation Division:

a. Before Commencing Operations. The person, operator or facility shall complete an H_2S contingency plan, where required, before commencement of operations. In addition, hydrogen sulfide training shall be completed and all related safety equipment and warning systems shall be operational before commencement of operations. Detection and monitoring equipment is not required for drilling from the surface to within 500 feet of the zone anticipated to contain hydrogen sulfide.

COMMENT: Pierce Production Company, Marathon Oil Company: No contingency plan should be required for any operation outside of a municipality. The contingency plan, training and necessary equipment should be operational prior to commencement of completions and workovers only; the plan, training and equipment for drilling operations should be in place 500 feet above the zone anticipated to contain hydrogen sulfide.

RESPONSE: Oil Conservation Division: Comments claimed the term "operations" was vague. The Division disagrees and believes the term "operations" is satisfactory when the "scope" of the Section is considered, and recommends that the term remain.

b. Egress Routes. The person, operator or facility shall maintain passable egress routes at all times during operations.

c. Safety, Detection and Monitoring Equipment. The person, operator or facility shall provide hydrogen sulfide detection and monitoring equipment as follows:

i. Each drilling and completion site shall have a hydrogen sulfide detection and monitoring system that automatically activates visible and audible alarms when the ambient air concentration of hydrogen sulfide reaches 20 ppm. There shall be a sensing point located at the shale shaker, rig floor and bell nipple for a drilling site and the cellar, rig floor and circulating tanks or shale shaker for a completion site.

COMMENT: Pierce Production Company, Marathon Oil Company; the time weighted average for the permissible exposure limit of 10 ppm is eight hours. Alarms that activate at 20 ppm should provide adequate public protection (this comment is not altogether clear).

RESPONSE: Oil Conservation Division: Theses comments seem to express concern that the current safety rules were being relaxed. However, the workgroup intended that the proposed rule have flexibility to address the issue of nuisance tripping of alarms. The 20 ppm activation level is a minimum standard and operators may choose to set more stringent levels. The Division thus recommends no change in the wording of the paragraph.

ii. The detection system shall be calibrated, tested and the results recorded monthly. Each test of the hydrogen sulfide monitoring system shall be recorded on the driller's log or its equivalent.

iii. For workover and well servicing operations, one operational sensing point shall be located as close to the well bore as practical. Additional sensing points may be necessary for large or long-term operations.

COMMENT: Harvard Petroleum Corp.: This requirement is extr4mely costly and burdensome.

iv. Hydrogen sulfide detection, safety and monitoring equipment must be provided and the prescribed safety equipment must be made operational during drilling when drilling is within 500 feet of the zone anticipated to contain hydrogen sulfide and continuously thereafter through all subsequent drilling.

d. Wind Indicators and Signs.

i. Equipment to indicate wind direction shall be present and visible at all times. At least two devices to indicate wind direction shall be installed at separate elevations and visible from all principal working areas at all times.

ii. Danger or caution signs shall be displayed along all accesses to the site. The signs shall read "DANGER - POISON GAS, HYDROGEN SULFIDE PRESENT" or, as appropriate, "CAUTION - POISON GAS - HYDROGEN SULFIDE MAY BE PRESENT" or equivalent language approved by the division, and in smaller lettering: "Do Not Approach If Red Flag is Flying" or equivalent language approved by the division. Each sign shall be painted in colors that satisfy Table 1 of ANSI standard Z53.1-1967 or regulations of the federal occupational safety and health administration. The signs shall be legible and large enough to be read by all persons entering the well site and shall be placed a minimum of 200 feet but no more than 500 feet from the well site and at a location which allows vehicles to turn around at a safe distance prior to reaching the site.

COMMENT: Marbob Energy Corp.: ANSI Z53.1-1967 and the pertinent OSHA regulations should be attached to the rule.

iii. When a sustained concentration of hydrogen sulfide is detected in excess of 20 ppm at any detection point, red flags shall be displayed.

e. If Hydrogen Sulfide Encountered During Operations. If hydrogen sulfide was not anticipated at the time the division approved the APD but is encountered during drilling in excess of 100 ppm in the gaseous mixture, the operator shall immediately ensure control of the well, suspend drilling operations unless detrimental to well control, and obtain materials and safety equipment to bring the operations into compliance with this Section. The operator shall notify the division of the event and the mitigating steps that have or are being taken as soon as possible, but no later than 24 hours following discovery.

3. Operating Practices In Hydrogen Sulfide Concentrations of 100 ppm or Greater. Operating practices in areas known to contain a concentration of hydrogen sulfide gas of 100 ppm or greater in the gaseous mixture shall be subject to the following requirements:

a. If Hydrogen Sulfide Is Encountered During Use of Air, Gas, Mist or Other Non-Mud Circulating Media. If hydrogen sulfide gas in excess of 100 ppm is encountered while drilling with air, gas, mist or other non-mud circulating mediums for aerated mud, the well shall be killed with a water- or oil-based mud, and mud shall be used thereafter as the circulating medium for continued drilling. An alternate drilling method may be used after ~~encountering hydrogen sulfide in excess of 100 ppm, but only if the alternative method is specifically approved by the Division~~the Division specifically approves encountering hydrogen sulfide in excess of 100 ppm, but only if the alternative method.

b. Flare System. For drilling and completion operations, the person, operator or facility shall install a flare system to safely gather and burn hydrogen sulfide-bearing gas, unless exempted pursuant to Subsection J. Flare outlets shall be located as far from the well bore as feasible but not less than 150 feet from the well. Flare lines shall be as straight as practical. The flare system shall be equipped with a suitable and safe means of ignition. Where noncombustible gas is to be flared, the system shall be provided supplemental fuel to maintain ignition.

drilling: BOP
accumulator
remote controlled choke
workover: BOP

COMMENT: Marbob Energy Corp.: Smaller drilling pads may not physically be able to accommodate flare outlets 150 feet away from the well. The language should be modified to require flare outlets 150 feet from the well "if feasible."

c. Remote Controlled Choke. When a potentially hazardous volume of H_2S may be present in any public area, the following measures shall be taken:

i. The person, operator or facility shall install a remote controlled choke during drilling and ~~during completion and well servicing operations when the 100-ppm H_2S radius of exposure includes a public area~~, unless exempted pursuant to Subsection J;

ii. For completion or workover operations, the person, operator or facility may install a suitable alternative to a remote choke (i.e. a remote controlled valve, blow out preventer with remote accumulator, etc. may be used); and

COMMENT: Marbob Energy Corp.: A blowout preventer is not a suitable alternative to a remote controlled choke. The blowout preventer is the most important equipment for blowout prevention. It should not replace the choke in the hierarchy of important well control equipment. The two previous paragraphs should be combined and rewritten. The rule should instead specify the use of a blowout preventer with remote accumulator while leaving the use of the choke manifold and remote choke to the operator's discretion, and perhaps tie the use of a choke manifold to expected maximum surface pressure.

iii. For drilling operations, the person, operator or facility shall install a remote controlled choke or remote controlled valve that includes, at a minimum, a pressure and hydrogen sulfide-rated well control choke and kill system including manifold and blowout preventer pursuant to specifications API-16C ~~and API-RP~~ 53. The blowout preventer stack shall have at least one spool for the kill and choke lines, two pipe rams, one blind ram, one annular device and a rotating head. Mud-gas separators shall also be used. These systems shall be tested and maintained pursuant to the specifications referenced or other division rules, if more stringent. Variations to blowout preventer stack arrangements may be granted by the division for good cause shown.

COMMENT: Pierce Production Company, Marathon Oil Company: Rigs in the Permian Basin cannot accommodate this stack arrangement under the rotary table beams. Some BOPs have choke and kill line inlets and outlets as an integral part of the preventer without requiring an additional spool, and this should be permitted in lieu of the specified equipment. This subparagraph should be rewritten to permit use of an existing dual ram, annular and rotating head arrangement unless the Division requires additional equipment with "good cause shown."

COMMENT: Marbob Energy Corp.: The use of a remote controlled choke during completion and workover operations is almost unheard of. The requirement in this paragraph is unnecessary, complicates well operations and is expensive. The blow out preventer is the primary means of well control. The use of a remote controlled choke should be left to the operator's discretion. Finally, the reference to drilling operations is redundant of "part iii."

RESPONSE: Oil Conservation Division: The workgroup had the same concerns voiced by these operators. However, it should be noted that the Division requires these BOP arrangements only if a potentially hazardous volume is present at a given location. Some blowout preventers include integral choke and kill lines and the Division will approve use of such designs. Therefore, the Division recommends no change in the wording.

d. Mud Program. A mud program, including de-gassing and flaring, capable of handling H_2S conditions and well control shall be used.

COMMENT: Pierce Production Company, Marathon Oil Company: This subparagraph should also require that a sufficient amount of weighting material on hand to raise the mud weight to a level that would exert sufficient hydrostatic pressure on the formation to prevent influxes, but only for operations conducted within a municipality. public area? not a good idea - Will yes

RESPONSE: Oil Conservation Division: One commenter was concerned that the language did not address the need for "sufficient amount of weighting material on hand to prevent influxes". The Division responds that loss control is extremely important, but this rule is not intended to address that concern. Also, the Division notes the phrase "well control" appears in the proposed rule that should adequately address this issue, and the Division recommends no change in the wording. Another comment requested that the weighting material requirement be limited to wells within municipal boundaries, however, the Division notes that the proposed rule is intended to apply to operations where there a concentration of H_2S exists in excess of 100 ppm and in these situations additional mud should be maintained on hand to assure that the ability to control the well is present and the proposed language is therefore warranted. The Division accordingly recommends no change in the wording.

e. Well Testing. Except with prior approval by the division, the drill-stem testing ~~shall be conducted only during daylight hours~~ and formation fluids shall not be permitted to flow to the surface (closed chamber only). An operator shall notify the division 24 hours in advance of a drill-stem test if an H_2S contingency plan is required pursuant to this Section. will ? will - keep not practical - Will

COMMENT: Pierce Production Company, Marathon Oil Company: Closed chamber drill stem testing is more expensive and unnecessary in most cases, and the requirement of 24 hours notice is impractical. Conventional drill stem testing can be accomplished safely utilizing the proper surface gas separation and flaring equipment. closed chamber will limit present testing (as soon as practical prior to test)

COMMENT: Marbob Energy Corp.: A requirement for drill-stem testing that restricts the hours of testing to daylight hours, requires closed chamber testing, and requires 24 hours notice is impractical and unnecessary. Industry has routinely conducted drill-stem tests without these requirements without any problems.

RESPONSE: Oil Conservation Division: The Division recognizes the burden imposed by these requirements but also notes that these requirements apply only if an H_2S contingency plan is required. The Division responds that the additional requirements provide an additional safety margin to assure public safety and recommends no change in the wording.

G. Protection from Hydrogen Sulfide at Crude Oil Pump Stations, Producing Wells, Tank Batteries and Associated Production Facilities, Refineries, Gas Plants and Compressor Stations.

COMMENT: Greg Nibert: This subsection should be deleted because it seeks to protect worker safety rather than public safety and is duplicative of OHSA and requirements of the Bureau of Land Management.

COMMENT: Harvard Petroleum Corp.: The concerns addressed in this subsection are sufficiently addressed by Rule 118(E). The additional requirements above and beyond what Rule 118 already requires are onerous, expensive and unnecessary.

1. API Standards. Operations at crude oil pump stations and producing wells, tank batteries and associated production facilities shall be conducted ~~according~~ to the guidelines published by the API in its publication entitled "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide," RP-55, latest edition. "with due consideration" PHV?

COMMENT: Marbob Energy Corp.: The API standards referred to are in fact "recommended practices" of API, not a requirement or statute. RP-55 should not be changed into a regulation in this manner. RP-55 should be attached to the Rule.

2. Minimum Standards. At a minimum, production from crude oil pump stations and producing wells, tank batteries and associated production facilities shall also be conducted in accordance with the following Subparagraphs and Sub subparagraphs. Where API standards referred to in the previous paragraph are less stringent than the following, the more stringent standards shall apply.

COMMENT: Marbob Energy Corp.: The API standards referred to are in fact "recommended practices" of API, not a requirement or statute and shouldn't be changed into a regulation in this manner.

a. Gaseous Mixtures Containing 100 ppm or more. Producing wells containing 100 ppm or more of hydrogen sulfide in the gaseous mixture, crude oil pump stations, tank batteries and associated production facilities, refineries, gas plants and compressor stations, shall be subject to the following:

i. H_2S Contingency Plan. If a potentially hazardous volume of H_2S exists, an H_2S contingency plan shall be required.

ii. Signage. A danger sign or signs shall be posted within 50 feet of each facility to alert the public of the potential hydrogen sulfide danger. If fenced, a danger sign at the gates shall suffice. The signs shall read "DANGER - POISON GAS - HYDROGEN SULFIDE PRESENT", or, as appropriate "CAUTION - POISON GAS - HYDROGEN SULFIDE MAY BE PRESENT" or equivalent language approved by the division. Each sign shall be painted in colors that satisfy Table 1 of ANSI standard Z53.1-1967 or regulations of the federal occupational safety and health administration. The signs shall be legible and large enough to be read by all persons entering the well site. A sign shall be placed at each point where a flow line or gathering line crosses a public road. Each sign shall be legible and shall contain the name of the owner or operator and an emergency telephone number. [Division proposed change, August 16, 2002]

~~ii. Signage. A danger sign or signs shall be posted within 50 feet of each facility to alert the public of the potential hydrogen sulfide danger. If fenced, a danger sign at the gates shall suffice. Danger signs shall be posted at each flow line and gathering line on the well pad that contains hydrogen sulfide gas. The signs shall read "DANGER - POISON GAS - HYDROGEN SULFIDE PRESENT", or, as appropriate "CAUTION - POISON GAS - HYDROGEN SULFIDE MAY BE PRESENT" or equivalent language approved by the division. Each sign shall be painted in colors that satisfy Table 1 of ANSI standard Z53.1-1967 or regulations of the federal occupational safety and health administration. The signs shall be legible and large enough to be read by all persons entering the well site. A sign shall be placed at each point where a flow line or gathering line crosses a public road. Each sign shall be legible and shall contain the name of the owner or operator and an emergency telephone number.~~

COMMENT: Pierce Production Company, Marathon Oil Company: There is no need to post each gathering line and flow line if a well pad already requires the entire pad to be signed. Flow lines and gathering lines should be signed at their intersection with a public road.

COMMENT: Marbob Energy Corp.: ANSI Z53.1-1967 and the pertinent OSHA regulations should be attached to the rule.

RESPONSE: Oil Conservation Division: The Division proposes the amended paragraph to address these concerns.

iii. Fencing. Fencing and gates shall be required when crude oil pump stations and producing wells, tank batteries and associated production facilities are located in a public area or within a 1/4-mile of a residence, school, church, park, playground, school bus stop or place of business. The fence shall consist of a 5-foot chain link topped by two stands of barbed wire or other designs approved by the division. Gates shall be locked when unattended.

COMMENT: Pierce Production Company: Fencing should be at the operators' discretion outside the boundaries of a municipality.

RESPONSE: Oil Conservation Division: The Division responds that the workgroup had consensus on this issue and wanted to make a standard to assist operators, but acknowledged that there could be exceptions to the fencing requirement. Therefore, the Division recommends no change in the wording.

iv. Wind Direction Indicators. Wind direction indicators shall be required at every crude oil pump station, producing well, tank battery and associated production facility where the H_2S concentration in a gaseous state exceeds 100 PPM.

v. Secondary Well Control. Wells where the 100-ppm H_2S radius of exposure incorporates a public area shall possess a secondary means of immediate well control through the use of appropriate christmas tree or downhole completion equipment. Such equipment shall allow downhole accessibility (reentry) under pressure for permanent well control operations.

COMMENT: Marbob Energy Corp.: The requirements of this paragraph cannot be met where a rod pump or a progressive cavity pump is producing a well. The paragraph should be rewritten to make operational sense.

vi. Automatic Safety Valve or Shutdown. If the 100-ppm radius of exposure involves a public area, the person, operator or facility shall install an automatic safety valve or shutdown at the facility or wellhead or shall install other appropriate shut-in control. The automatic safety valve shall be set to activate upon a release of a potentially hazardous volume of hydrogen sulfide.

b. Tanks or vessels containing 300 ppm or more of hydrogen sulfide in the gaseous mixture shall be subject to the following additional requirements:

i. Each stair or ladder leading to the top of any storage tank shall be chained or marked to restrict entry. For any tank battery that requires fencing pursuant to this Section, a danger sign posted at the gates may be substituted for chaining and signs.

ii. The person, operator or facility shall post a danger sign on or within 50 feet of any storage tank to alert persons of the potential hydrogen sulfide danger. For any storage tank for which fencing is required, a danger sign posted at the locked gates shall suffice. The signs shall read "DANGER - POISON GAS - HYDROGEN SULFIDE PRESENT", or, as appropriate "CAUTION - POISON GAS - HYDROGEN SULFIDE MAY BE PRESENT" or equivalent language approved by the division. Each sign shall be painted in colors that satisfy Table 1 of ANSI standard Z53.1-1967 or regulations of the federal occupational safety and health administration. The sign(s) shall be legible and large enough to be read by all persons entering the site.

COMMENT: Marbob Energy Corp.: ANSI Z53.1-1967 and the pertinent OSHA regulations should be attached to the rule.

3. Compliance Schedule. Each existing crude oil pump station and producing well, tank battery and associated production facility not currently meeting the requirements and minimum standards

set forth herein shall be brought into compliance within one year of the effective date of this Section except that contingency plans shall be submitted within 180 days. Each crude oil pump station and producing well, tank battery and associated production facility constructed following the effective date of this Section shall be designed, constructed and operated to meet the requirements set forth herein.

~~3. Compliance Schedule. Each existing crude oil pump station and producing well, tank battery and associated production facility not currently meeting the requirements and minimum standards set forth herein shall be brought into compliance within one year of the effective date of this Section., except that contingency plans shall be submitted within 180 days. Each crude oil pump station and producing well, tank battery and associated production facility constructed following the effective date of this Section shall be designed, constructed and operated to meet the requirements set forth herein.~~

H. Personnel Protection and Training. All persons responsible for the implementation of any H_2S contingency plan shall be provided training in hydrogen sulfide hazards, detection, personal protection and contingency procedures.

COMMENT: Greg Nibert: This subsection should be deleted because it seeks to protect worker safety rather than public safety and is duplicative of OHSA and requirements of the Bureau of Land Management.

COMMENT: Harvard Petroleum Corp.: The concerns addressed in this subsection are sufficiently addressed by Rule 118(E). The additional requirements above and beyond what Rule 118 already requires are onerous, expensive and unnecessary.

I. Standards for Equipment That May Be Exposed to Hydrogen Sulfide. Persons, operators and facilities shall choose equipment with consideration for both the H_2S working environment and anticipated stresses. NACE Standard MR0175 (latest edition) shall be used for selection of metallic equipment or, if applicable, adequate protection by chemical inhibition or other methods that control or limits the corrosive effects of H_2S shall be used.

Flexibility

COMMENT: Greg Nibert: This subsection should be deleted because it seeks to protect worker safety rather than public safety and is duplicative of OHSA and requirements of the Bureau of Land Management.

COMMENT: Harvard Petroleum Corp.: The concerns addressed in this subsection are sufficiently addressed by Rule 118(E). The additional requirements above and beyond what Rule 118 already requires are onerous, expensive and unnecessary.

COMMENT: Marbob Energy Corp.: NACE Standard MR0175 should be attached to the rule.

J. Exemptions. An exemption to certain requirements of this Section may be granted by petitioning the director. Any such petition shall provide specific information as to the circumstances that warrant approval of the exemption requested and how the public safety will be protected. Submission of a safety plan required by other governmental agencies may accompany the petition for exemption. The director, after considering all relevant factors, may approve an exemption if the circumstances warrant an exemption.

COMMENT: Harvard Petroleum Corp.: The proposed new section should be rewritten so that operators will not have to file for exemptions resulting from poor drafting.

K. Release. Upon a release of hydrogen sulfide the following actions must be taken:

COMMENT: Greg Nibert: This section should be deleted along with the subsection that requires preparation of contingency plans.

COMMENT: Harvard Petroleum Corp.: This paragraph would need to be substantially revised to reflect the many changes suggested in previous comments.

COMMENT: Marbob Energy Corp.: The Division should consider defining the length of time a release has occurred before the contingency plan is put into effect. A short release might not produce a potentially hazardous volume before it is contained.

1. Activation of the H_2S Contingency Plan. The person, operator or facility shall activate the H_2S contingency plan immediately upon an H_2S release where the potential exists for exposure to a potentially hazardous volume of H_2S, or where a concentration of H_2S greater than 50 ppm exists at the facility boundary of any well, facility or operation.

~~1. Activation of the H_2S Contingency Plan. The person, operator or facility shall activate the H_2S contingency plan immediately upon an H_2S release where the potential exists for exposure to a potentially hazardous volume of H_2S, or where a concentration of H_2S greater than 50 ppm exists at the property line of any well, facility or operation.~~

COMMENT: Marbob Energy Corp.: The clause requiring activation of the contingency if the sustained concentration of hydrogen sulfide at the property line reaches 50 ppm should be deleted. The words "sustained" and "property line" are not adequately defined. The contingency plan should only be activated if a potentially hazardous volume is present, not on these more subjective criteria.

COMMENT: IPANM: The term sustained is not defined, but should be because it could be interpreted as five minutes, ten minutes of twelve hours. Where is property line? Is it the mineral estate or the surface estate? Word "facility" not defined.

RESPONSE: Oil Conservation Division: Two operators requested that the language referring to the "property line" be stricken. OCD agrees and proposes that the phrase " facility boundary" be inserted. The term "facility boundary" allows the operator some flexibility in determining the threshold for activation and at the same time provides them with a definite activation number to implement the contingency plan. OCD feels this provides the best protection for the public while allowing operators the flexibility needed to prevent nuisance activation of contingency plans.

2. Notification of the Division. The person, operator or facility shall notify the division upon a release of hydrogen sulfide requiring activation of the H_2S contingency plan as soon as practicable, preferably within one hour of discovery of the release or as soon as possible in cases where prompt response should supercede notification. The person, operator or facility shall submit a full report of the incident to the division on Form C-141 no later than fifteen (15) days following the release.

L. Corrective Actions. The division may require corrective actions if necessary to maintain control of a well or any other facility or to safeguard public safety.