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September 19, 2002

Lori Wrotenbery, Director
Oil Conservation Division
New Mexico Energy, Minerals &
Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Case No. 12897: Application of the New Mexico Oil Conservation Division Through the Environmental Bureau Chief, for the Adoption of Amendments to Division Rule 118 (Hydrogen Sulfide Gas): Commission Revisions to the Proposed Rule

Dear Ms. Wrotenbery,

Jenex Operating Company, which operates a plant near Hobbs, New Mexico, wishes to comment on the draft H_2S rule, based on the Commission's letter dated August 30, 2002. We have been made aware of this proposed rule by our customers, Controlled Recovery, Inc., and Loco Hills Water Disposal Company. It appears it would also apply to our facility.

We wish to support the thoughtful changes which were suggested by Mr. Feldewert of the law firm of Holland and Hart on behalf of Controlled Recovery, Inc. We have been handling oil with hydrogen sulfide for a number of years. It is clear to all of us that while sour oil must be handled carefully, when it accumulates in the top of tanks, there is no danger of hydrogen sulfide contamination of the ambient air in our rural locations, from the disposal of oily solids of the type that any of our companies routinely handle, or any danger to the public from the venting of a tank of sour crude which releases a tiny amount of H_2S into the ambient air.

We have collected readings using portable H_2S equipment at the borders of our plant, and have a 100% success ratio that no measurable amounts are ever found. This

must be common in the rural areas of New Mexico for solid disposal plants. Requiring expensive fixed equipment testing for this type of plant in a rural area is a regulation in desperate search of a problem.

What is not in question, however, is that singling out surface waste management facilities from the scope of your proposed rule is neither necessary nor wise. It will be an economic hardship with no commensurate public health value. If you have a solid waste disposal facility within an urban setting, you should make the urban setting the basis of your rule, and not enforce these requirements which are extremely difficult for small companies with limited staff to comply with, in their normal rural settings.

Thank you for this consideration.

Very Truly Yours,

Gerald L. Jensen
Jenex Operating Company

PIERCE PRODUCTION COMPANY

P. O. Box 2079
Midland, Texas 79702-2079
915 570-0009

September 18, 2002

VIA FACSIMILE and Express Mail

Attention: Stephen C. Ross
Assistant General Counsel
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: NMOCD Rule 118 Hydrogen Sulfide Gas – Public Safety

Mr. Ross,

Thank you for your August 30, 2002 response to our comments regarding Rule 118. Pierce Production Company has reviewed with interest your letter and the additional the proposed rule changes to NMOCD Rule 118. Further research has indicated that rules governing workers and hydrogen sulfide fall under the jurisdiction of OSHA and are concerned that we are going to have two different governmental agencies attempting to establish jurisdiction over each other. Our research also has not turned up single incident in the past 50 years in Southeast New Mexico, of an hydrogen sulfide event.
We do appreciate being able to have additional input and we wish to offer these substantive comments for your consideration.

Your letter specifically invites comments regarding five areas. In regards to the first area concerning protective measures in remote areas; Webster's defines remote as far away, distant, not closely connected. Since wells or facilities in a remote area will never impact the public, the commission is correct in only requiring signage and we agree that no additional requirements are needed. We disagree that any well or facility in a remote area that does have a potentially hazardous volume should require any further regulations, the key word being remote.

The second area concerns the extent to which the rule should apply to pipelines and gathering systems. The reason that pipelines and gathering systems are not mentioned in the draft or any other draft is because all pipeline and gathering systems are governed by DOT rules which adequately address hydrogen sulfide therefore the Commission does not have jurisdiction and should not attempt to inject itself into matters that are already regulated.

The third area of concern was for facilities permitted under Rule 711. Since many of these facilities are permitted by the Commission, they already fall under rules and regulations that adequately address the issue of hydrogen sulfide; therefore any additional rule strictly for these facilities would be redundant.
The fourth area of Commission concern is for well control during drilling, workover, completion, re-completion and well servicing. The draft does indeed impose what I would call "onerous" requirements, not "rigorous" requirements. I offer the following example to show how intent to do "good" is in reality ridiculous. If a well is to be drilled through a reservoir that contains gas with a hydrogen sulfide content of 500 ppm and only has the ability to produce 25 mcf/day; the radius of exposure after 24 hrs. would be 223 feet. Any necessary well control action that needed to be taken on a drilling operation would occur within minutes and not hours. The amount of gas released in minutes is so miniscule that it is basically impossible to calculate. The imposition of such rigorous requirements for drilling a well seems ludicrous. The best approach to take would be for the commission to let each District Director dictate on a case by case basis how rigorous the requirements should be for drilling in certain areas, not a complete blanket coverage for the entire state with no flexibility for the Districts.

C. 14.c – Definitions – We suggest inserting the underlined language into the definition. For a well being drilled, completed, recompleted, worked over or serviced in an area where insufficient data exists to calculate a radius of exposure but where hydrogen sulfide could reasonable be expected to be present in excess of 100 ppm in the gaseous mixture, a 100 ppm radius of exposure equal to 3,000 feet inside the boundaries of a municipality and a 100 ppm radius of exposure equal to 250 feet outside the boundaries of a municipality.

E. 2 – When Required - The new language that the Commission has inserted raises the question what is reasonable and who will decide what is reasonable, the operator or the Commission? Since the engineering and geologic knowledge of any project is greatest with the operator, it our recommendation that new language include the phrase "if the operator feels reasonably certain a potentially hazardous volume of hydrogen sulfide may be present, a hydrogen sulfide plan must be prepared".

E. 3. – Input of Emergency Response Authorities and the Division – Under the revised wording for this section, it says input from several entities should be solicited. My question is, since there is no wording stating how long an operator must wait for the named entities to respond to a hydrogen sulfide contingency plan? Some of the entities may never respond or some may wait months before responding. We believe furnishing copies of certified mail return receipts in the hydrogen sulfide plan such as the Commission accepts in all its other cases would be sufficient proof of notification of the named entities. We continue to recommend that these notifications are only necessary for any operation inside the municipal boundaries of a town or city. Notification for any activities outside municipal boundaries of a town should not be required.

E. 9. – Activation Levels – While we support the activation of the contingency plan in the event of a release of a potentially hazardous volume of H2S above the respective thresholds (500 ppm radius at any public road, 100 ppm radius at any public area, etc.) it is unclear about the definition of a property line of a facility, well or operation. A property line could be construed to be the physical edge of a facility, drilling location or a proration unit or lease. We would suggest that the reference to property line be stricken and that operators be bound to the procedures identified in 4. a. - Elements Required for each Plan.

G. 2. f. i. – Drilling Operations – I again must restate from my first letter, this section requires that the BOP stack consist of a separate spool for the choke and kill lines, two pipe rams, one blind ram, an annular preventer and a rotating head. Most rigs operating in the Permian Basin simply do not have the space for this type of stack arrangement under the rotary table beams. Many BOP's have choke and kill line inlets and outlets as an integral part of the preventer without requiring an additional spool. An additional blind ram could cause further burden on the accumulator for sufficient closing pressure. Due to the extremely good safety record of our industry regarding all phases of drilling, completion and production, we would request that the division permit the existing dual ram, annular and rotating head arrangement unless the division desires additional equipment for good cause shown. Under the new proposed language, the Commission is ruling out any variations whatsoever for absolutely no reason. The Commission cannot produce one shred of scientific evidence where this inflexible position is warranted. If the new language is adopted, it will be the death knell for many drilling projects in New Mexico. We urgently request the Commission drop the new language.

G. 2. f. ii. – Completion, Workover and Well Servicing Operations – There is nothing at all feasible about having to use a remote controlled choke or remote controlled hydraulic BOP for a well servicing job such as repairing a leak in the tubing. This paragraph points out again how illogical things become when the Commission has no one with any practical field experience that can emphatically state this is not necessary for most operations. This paragraph should be completely rewritten stating that it is up to the operator's discretion as to the appropriate well control equipment.

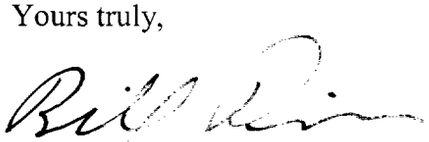
G. 2. h. – Well Testing – The words "District Director" should be inserted where "division" is and "division" deleted.

H. 2. ii – Fencing – We continue to disagree with the need for a 5 foot chain link fence topped by two strands of barbed wire outside the municipal boundaries of a town. It should be the discretion of the operator, not the OCD, if any fencing is required and its' type and design, outside the municipal boundaries of a town. If this clause is left in the rule, the term "division" should be deleted and replaced with "District Director".

Pierce Production Company again appreciates the opportunity to provide comments on the proposed rule changes and we support the repeal of the existing rule 118 and the adoption of the proposed rule after consideration and inclusion of the substantive comments by industry.

Should you have any questions regarding Pierce Production Company's comments, please do not hesitate to contact me at (915) 570-6009.

Yours truly,



Bill Pierce
Vice President – Engineering

OCD Comments to be submitted to the OCC concerning the Hydrogen Sulfide (H_2S) draft rule (8/30/02). Hearing to be held September 20, 2002. Case # 12897.

Subsection B Applicability

OPENING SENTENCE

This Subsection should clearly state that this rule applies to all facilities regulated by OCD that have hydrogen sulfide in concentrations of 100 ppm or greater, notwithstanding that some specific provisions are subject to additional applicability requirements. Both the BLM and other states (*e.g.*, Texas), as well as OCD's existing Rule 118, put this language up front.

OCD accordingly recommends that the original opening sentence of this subsection, deleted in the present draft, be restored.

PIPELINES

The commission raised the issue of applicability of the proposed rule to pipelines. OCD's intent was to cover any facility that is regulated by OCD if that facility has hydrogen sulfide in concentrations of 100 ppm or greater. This would be consistent with OCD responding to leaks and spills from both gathering, intermediate and main line pipelines. Most mainline pipelines have sweet gas and therefore would not be subject to the regulations. However, there are high volume and pressure sour gas pipelines that are prevalent in the oil field. These lines should be covered under this rule.

OCD believes that the present draft unambiguously covers pipelines. The second sentence of Subsection B states that the Rule applies to "any . . . facility engaged in . . . transporting, . . . crude oil, natural gas or carbon dioxide." The only specific provisions that apply to pipelines, however, are the requirement to compute Radius of Exposure and, if applicable, to prepare a Contingency Plan, and a specific signage requirement in Subsection F. OCD believes that other provisions applicable to downstream facilities properly should not apply to pipelines.

WASTE DISPOSAL (RULE 711) FACILITIES

Public comments have addressed the issue of applicability of the proposed rules to waste treatment and waste disposal facilities regulated by OCD pursuant to Rule 711. OCD practice, under the general authority of Rule 711, has been to address H2S monitoring and control requirements for such facilities on a site-specific basis through the permitting process. There are cogent reasons for treating such facilities as an exception to the general standards of the proposed rule.

Waste management facilities generate H2S as wastes decompose. Since the composition of the waste mixture and the conditions of its decomposition may change rapidly with resulting unpredictable changes in H2S emissions, the regulatory scheme of the present rule, premised on an historically ascertained volume and concentration of H2s that is presumed to be essentially constant, is not adequate to address safety concerns at these facilities.

Although OCD previously recommended that these facilities be exempted altogether from the proposed rule, we accept the language of the present draft making clear that more stringent requirements in permits, existing or subsequently issued under Rule 711, will govern.

Subsection E. Hydrogen Sulfide Contingency Plan.

OCD concurs with comments filed by others to the effect that the following language in Paragraph E.2 is confusing:

> "whenever a potentially hazardous volume of hydrogen sulfide is present or may reasonably expected to be present."

OCD believes that this language is intended to apply to a new well if a PHV is reasonably expected by reason of experience of wells in the vicinity or pursuant to the provision (C.14.c) regarding wildcat wells, and to a producing well or facility if a PHV is present in the gas stream or mixture, as determined by the prescribed testing procedures. It is suggested that the referenced language be amended to read as follows:

"whenever a potentially hazardous volume of hydrogen sulfide is present *or (in the case of a well being drilled, deepened or re-entered)*, may *be* reasonably expected to be present. . . ."

Subsection F Signage.

The present draft added a new Subsection F , which includes only signage requirements applicable to all OCD regulated facilities with H_2S concentrations of 100 ppm or greater in the gas stream or mixture. With a minor exception concerning pipelines, discussed below, OCD takes no exception to the proposed signage rules.

However, requirements for wind indicators and other operational equipment that, in previous drafts, would have been required wherever a 100-ppm concentration was present now appear in Subsections G and H, and would now apply only in circumstances where a PHV is present. Commission counsel, in a cover letter to the Division, explained that there was a concern about imposing operational requirements upon wells located in remote areas where a PHV was not present. OCD firmly believes that the 100 ppm trigger for training and certain equipment requirements, in addition to signage, should be restored. Our reasons are discussed below in our comments on particular requirements of Subsections G and H.

OCD believes that the signage requirement applicable to pipelines (the last sentence of Paragraph F.2) should be amended by adding the words "or other pipeline", following the words "flow line or gathering line." This language was intended to cover pipelines that might be expected to contain H2s. However, the Division believes there may be some local transportation lines that contain H2S that would arguably not fall within the description "flow lines or gathering lines," and such lines should be subject to the same signage requirements as flow lines and gathering lines.

Subsection G. Protection from Hydrogen Sulfide During Drilling, Completion, Work over and Well Servicing Operations:

TRIGGER LEVEL (100 PPM vs. PHV)

The present draft provides that the stipulations of Paragraph 1 (API Standards) and 2 (Minimum Standards) will be applicable only if a "PHV may reasonably be expected to be encountered." The draft presented to the Commission by the Division and the workgroup's final draft provided for the requirements now embodied in Paragraphs G.1 and G.2 (with the exception of the remote well control equipment [G.2.h]) to be applicable to all systems and operations containing 100 ppm or greater of H_2S in the gas stream or mixture, not just in PHV areas.

The Division believes that the requirements for conformance to API standard (G.1.), H2S training of personnel (G.2.a.), maintenance of an emergency egress route (G.2.b.), detection and monitoring equipment (G.2.c.), wind indicators (G.2.d.), flare systems (G.2.e) and an H2S appropriate mud program (G.2.g) should apply wherever H2S concentrations of 100 ppm are present, regardless of the existence or not of a PHV.

As noted, it was the consensus of the work group, including industry representatives, that the 100-ppm trigger should apply to these requirements. In addition, OCD believes the following considerations militate in favor of the 100-ppm trigger:

API STANDARDS [G.1]. The API documents are designed to be used in operations that contain lesser volumes of H_2S as well as PHV conditions. These standards were formulated by an industry association with extensive expertise, and are designed to establish an industry standard. In private litigation, courts routinely consider such industry standards as evidence of negligence on the part of operators who do not comply. OCD believes that we should not, on an important safety issue, countenance less than industry standards. Furthermore, observance of API standards for drilling in conditions of H2S concentrations of 100 ppm or more is required by present Rule 118.C.

H2S Training [G.2.a]; Detection and Monitoring Equipment [G.2.a and c]; Egress Route [G.2.b]. OCD urges that all of these requirements should be triggered by the presence of 100 ppm of H2S in the gas stream

regardless of the existence of a PHV. Wells that, due to their remote location, are not expected to produce a PHV nevertheless present a hazard to persons who may be in the vicinity for whatever reason (*i.e.* outdoor recreation, such as hunting or camping, or pursuit of outdoor occupations such as agriculture or attending to wells of other oil and gas operators). The hazard that members of the public may be affected by a release increases substantially if the release is not properly detected and corrected. Requirements for training, detection and monitoring equipment and an egress route are designed to insure that on-site personnel will (1) know when they are experiencing a release, (2) know what to do, and (3) survive to do it. In the absence of these precautions the presence of an H2S leak may go undetected and unaddressed until a casualty occurs.

This specific reasoning has led other states to address what are arguably OSHA concerns in state H_2S regulations. The following is a quote from the Texas Rule 36 Introduction:

> "Rule 36 is designed for the protection of the General Public from the hazards of hydrogen sulfide gas in oil and gas operations and does not pertain to industrial safety as such. The Commission, however believes that education and safety training are the best defense against the hazards of hydrogen sulfide, and **that industry workers must be able to protect themselves if they are to help the general public."** [Emphasis added.]

Finally, training at least is specifically required where H2S is present in concentrations of 100ppm or more by existing Rule 118.B.

Wind Indicators [G.2.d.] OCD believes that wind indicators and red warning flags should be required on all locations where H2S in the gas stream exceeds 100 ppm. These are not expensive devices, and they are extremely relevant to survival in an emergency situation. Wind indicators are arguably required in 100-ppm or greater conditions by existing Rule 118.B. In this connection, OCD would further point out that it makes little sense to require (as Subsection F.1 of the present draft rule does) that a location have a sign admonishing persons not to approach if a red flag is flying if there is no red flag to fly.

Flare Systems [G.2.e]. OCD believes flare systems should be required on all locations where there is 100 ppm or more H2S in the gas stream. Flaring is the most efficient method of preventing the continued release of H2S into the environment until the source of a release can be

corrected. Since the risk that people will be affected increases the longer unimpeded release of H2S continues, requiring that the location have a means to promptly put a stop to the release is prudent. Furthermore flaring prevents unavoidable releases of H2S during normal operations from becoming a hazard. API standards require that escaping H2S be flared.

Mud Program [G.2.g.] OCD believes all wells with 100 ppm or more in the gas stream should be required to have a mud program capable of handling hydrogen sulfide conditions.

Consensus was achieved in the work group on the 100-ppm trigger for each of the above requirements.

OCD urges the Commission to re-evaluate this issue. The present draft substantially changes the proposed rule. In many instances, as noted above, it would actually be less stringent than the current rule 118 and less protective of public safety.

WELL CONTROL EQUIPMENT [G.2.f.]

Trigger. In the present draft the requirement for a remote-controlled choke and related equipment is triggered by the presence of a PHV. This is a *more stringent* requirement than was recommended by OCD based on the consensus of the work group. In the work group and OCD drafts this equipment would be required ONLY if the 100-ppm radius of exposure included a public area. In other words such equipment would not be required where a PHV was present only because of the presence of a public road in the 500-ppm radius of exposure. The workgroup and OCD felt that the dangers to persons traveling public roads during the time required to get appropriately protected personnel and equipment into the site to achieve control could be adequately addressed by traffic diversion pursuant to a Contingency Plan. Accordingly, requiring this high-cost equipment on the many locations that are remote from human habitation but proximate to roads was not justified. For these reasons, OCD believes that the less stringent provision (requiring remote well control equipment only if the radius of exposure includes a "public area") should be restored.

Specific Equipment Requirements. OCD has re-evaluated the specific equipment requirements of this section, and now recommends that the following language be substituted:

> f. Use of Well Control Equipment.
>
> i. Drilling. A remote controlled well control system shall be installed and operational at all times beginning when drilling is within 500 feet of the formation believed to contain hydrogen sulfide and continuously thereafter during drilling. The control system must include, at a minimum, a pressure and hydrogen sulfide-rated well control choke and kill system including manifold and blowout preventer that meets or exceeds the specifications API-16C and API-RP 53 or other specifications approved by the division. The blowout preventer stack shall have at least one spool, or integral BOP spool for the kill and choke lines, one dual BOP with one pipe and one blind ram, one annular device and a rotating head. Operators may be required to have available float valves, internal BOP's, stabbing valves, drill stem valves, etc. and other additional equipment in order to provide for public safety. Mud-gas separators shall also be used. These systems shall be tested and maintained pursuant to the specifications referenced, according to the requirements of this part, or otherwise as approved by the division.
>
> ii. Completion, Workover and Well Servicing.
>
> A remote controlled pressure and hydrogen sulfide rated well control system that meets or exceeds API specifications or other specifications approved by the division shall be installed and operational at all times before commencing work.

Industry has brought to OCD's attention the fact that they have safe practices in place already with respect to well-control equipment. According to many industry sources, virtually all drilling rigs operating in the Permian Basin are designed to utilize a dual-ram, annular and rotating head configuration for 3M and 5M rated working pressure stacks. Virtually all integral BOP stacks include choke and kill line outlets, thereby eliminating the need for a separate spool. Requiring an additional spool and blind ram is redundant and would force drilling contractors to increase the height of the rotary beams by an additional three feet to accommodate the extra BOP equipment normally reserved for 10M and 15M rated working pressure stacks. Industry has also found that use of a blind ram can cause insurmountable problems. An additional blind ram would serve little purpose in well control. With an informal cost benefit analysis, the cost of an additional ram is an unwarranted expense for minimal safety benefits.

Previous wording in Section G.2.f.ii "if feasible" is inappropriate since a drilling B.O.P stack arrangement is not appropriate in completion/workover operations.

Paragraph G.2.c. and G.2.c.iv.

REFERENCES TO "SAFETY EQUIPMENT"

The present draft omits all references to "safety equipment" in these paragraphs. The cover letter from commission counsel indicates that these references were deleted because no particular safety equipment was specified.

OCD recommends that these references be re-inserted. The workgroup spent quite a bit of time on this issue. While they did not want to list all of the required equipment in the rule (both because such a list would rapidly become obsolete and because different specific equipment might be indicated, depending on circumstances), they did agree that generic language should be incorporated as a requirement. Furthermore, there was a concern that since OSHA already requires safety equipment on site, an OCD specification of particular equipment might introduce conflicting requirements. The workgroup agreed that including this generic language in the rule would give flexibility to both the OCD and Industry.

OCD believes these considerations are cogent. In response to the concern articulated by commission counsel about the wholly generic language in the previous draft, OCD recommends that the words "safety equipment required by industry standards and good operating practice" be inserted at appropriate locations in Subparagraphs G.2.a and G.2.c.

Texas Rule 36 and BLM's On-Shore Order #6 has similar safety and equipment language.

Sub-Paragraph G.2.c.i

DETECTION EQUIPMENT ACTIVATION LEVEL

The activation level of 20 ppm for detection and monitoring systems was agreed upon by the work group. However, some operators choose to set more stringent standards to abide by their own in-house regulations and certain federal regulations. Thus, the rule should not be interpreted to preclude activation at a lower lever where appropriate. OCD accordingly recommends that the commission consider inserting the following language:

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 a predetermined value set by the operator, not to exceed a maximum of 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.

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

TRIGGER LEVEL (100 PPM vs. PHV)

The present draft provides that all of Paragraph 1 (API Standards) and Paragraph 2 (Minimum Standards) apply only at facilities "containing a potentially hazardous volume" of H2S. OCD believes that many of these requirements should be triggered by the presence of 100ppm or greater concentration of H2S in the gaseous mixture. Once again, this lower trigger for the specific requirements discussed below is in accordance with the consensus reached by the work group.

API Standards [H.1.]. See discussion of this issue with respect to Paragraph G.1 above.

Fencing [H.2.a.]. The intention of OCD and the work group was to require fencing of all facilities containing 100 ppm concentration or more of H2S that are located within 1/4 mile of a public area. The present draft would require fencing only if a PHV was present and, significantly, *would effective eliminate any fencing requirement for tank batteries,* which normally would not contain a sufficient volume to constitute a PHV. OCD believes that the fencing requirement of previous drafts should be restored. Unattended oil and gas facilities, such as tank batteries, in proximity to populated areas present a danger to intruders, particularly children who might find them attractive places to play. A dangerous or fatal concentration of H2S might occasionally be present at such facilities even if the total volume present were not sufficient to constitute a PHV.

Wind Direction Indicators [H.2.b.]. See discussion of this issue with respect to Paragraph G.2.d. above.

OCD urges the commission to re-evaluate this issue. The present draft substantially changes the proposed rule. In some instances it would be less stringent than the current Rule 118 and less protective of public safety.

CONTROL EQUIPMENT [H.2.c and d.]. *Trigger Level.* See discussion of this issue with respect to Paragraph G.2.f. above.

Paragraph H.2.d. Automatic Safety Valve or Shutdown

APPLICATION TO DOWNSTREAM FACILITIES

As written, this subparagraph would apply only to wells. It should apply to all downstream to which Subsection H applies. According OCD recommends that the first sentence be changed to read:

> "Any well or facility shall possess an automatic safety valve or shutdown at the facility or wellheald or other appropriat shut-in control."

Subsection L. Release:

CONTINGENCY PLAN ACTIVATION [L.1.]

The present draft has removed the 50-ppm contingency plan activation level. OCD recommends the re-insertion of this provision in the following language:

> In addition, any facility that is required to maintain a contingency plan for a public area shall activate the plan if there is a measured release of hydrogen sulfide gas on-site in a concentration of 50 ppm for a period of ten minutes, or if the on-site personnel are required to don personal protection equipment i.e. life-support systems in order to remain on site.

The workgroup reached consensus on this entire issue after considering the following:

50 ppm for 10 minutes is the level at which OSHA requires workers to wear respiratory protection equipment, if this level is present, since it has been scientifically determined that this level is harmful to human beings.

Members of the public would be more vulnerable than workers at the site in question. On-site workers have medical surveillance to which the general public cannot avail themselves. Nor is the general public trained in H_2S awareness, protection and escape procedures. The 50-ppm activation level will provide emergency response authorities additional time to respond and provide safety measures for the public before dangerous levels are encountered in public areas.

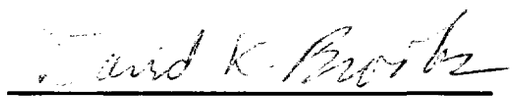
In addition, *and perhaps most significantly,* there must be some trigger level to perform activation; otherwise personnel at the site may be unsure as to when activation is necessary. Recall that the existence of a PHV is determined theoretically based on the volume and concentration of H2S in the gas stream. This theoretical computation is based on a worst-case scenario. A release, except in the event of a blowout, would necessarily be of a volume less than that assumed in determining the existence of a PHV. Thus, to know whether activation is indicated under the present rule, on-site personnel would have to first ascertain the actual volume and concentration of the release. Procrastination and confusion as to requirements in implementing emergency actions may prove to be disastrous. For this reason, The American Petroleum Association recommends readily ascertainable activation levels.

Industry concerns during the hearing of 7/19/02 were that activation of plans would be required, in remote areas, when there was no obvious threat to the public. OCD's intent is to require this predetermined activation level only in areas in proximity areas where the public might be exposed. It should be recalled that if, due to remoteness from public areas or public roads, the well or facility does not have a PHV, it will not have a contingency plan to activate.

Conclusion

OCD respectfully urges that the commission carefully consider the foregoing observations before adopting its final rule.

RESPECTFULLY SUBMITTED,



David K. Brooks
Assistant General Counsel
Energy, Minerals and Natural Resources Department of the State of New Mexico
1220 S. St. Francis Drive
Santa Fe, NM 87505
(505)-476-3450
Attorney for The New Mexico Oil Conservation Division

September 17, 2002

New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
Santa Fe, New Mexico 87504
Attention: Ms. Lori Wrotenbery

RE: Case No. 12897, Application of the New Mexico Oil Conservation Division Through the Environmental Bureau Chief for adoption of amendments to Division Rule 118 (hydrogen sulfide gas)

Dear Ms. Wrotenbery,

Marathon Oil Company appreciates the invitation to submit additional comments to the proposed hydrogen sulfide regulation as amended by the Chair and Commission counsel.

To address the particular concerns outlined in your letter dated August 30, 2002, we would first propose that measures for public safety and awareness for wells or facilities in remote areas should not be as protective as those for wells or facilities closer to areas of public concern. The intent of the rule is public protection and not a uniform standardization of operational protection for activities near and distant from public occupation. These types of stringent requirements reclassify all wells and facilities as dangerous whether they are located in remote ranchland or within municipalities.

Regarding the extent to which the rule applies or should apply to pipelines or gathering systems, we wish to reinforce our previous comments that it is prudent to mark pipelines as they cross public roads but it is redundant to require signage for flowlines on facilities or well pads. This proposed draft does reference the sign placement for flowlines and gathering lines at public road crossings in section F.2. yet is stricken from H.2.a.

Concerning the extent to which the rule applies or should apply to facilities permitted under Rule 711 we believe that the draft should address these types of waste facilities as they may affect public safety. Section E describes the preparation and implementation of the contingency plan, sections F. 2. and 3. address the types of facilities that the plan requires compliance and should include waste facilities here as well as drilling, completion, producing wells and associated facilities. Section G.c. adequately identifies the type of detection and monitoring equipment for the aforementioned installations. It should be noted that Rule 711.B. (1)(h) requires a contingency plan for all commercial and centralized facilities unless exempted from the rule.

The requirements for drilling in an H2S environment are restrictive and need revision to reflect the current safe practices utilized by industry. Section G.2.F.i. requires that the BOP stack consist of a separate spool for the choke and kill lines, two pipe rams, one additional blind ram, an annular preventer and a rotating head. Virtually all drilling rigs operating in the Permian Basin are designed to utilize a dual-ram, annular and rotating

head configuration for 3M and 5M rated working pressure stacks. Virtually all integral BOP stacks include choke and kill line outlets, eliminating the need for a separate spool. Requiring an additional spool and blind ram is redundant and would force drilling contractors to increase the height of the rotary beams by an additional three feet to accommodate the extra BOP equipment normally reserved for 10M and 15M rated working pressure stacks. We would suggest the division accept the recommendations of API-RP 53 for typical 3M and 5M rated working pressure stack installation unless the division desires additional equipment for good cause shown. We also believe that the addition of a blind ram is useless. If an additional ram is to be required, it must be a pipe ram in order to close around any tubular in the hole and serve a back up for the pipe ram in the upper part of the stack. An additional blind ram would serve little purpose in well control. This section does not address the need for proper BOP testing upon the installation of the pressure control equipment that can be a root-cause for many well control situations. Please refer to the attached diagram for a typical 5M BOP configuration utilized in Indian Basin. This same configuration is utilized for many 3M stacks in the Permian Basin, and there is no additional space to accommodate another blind ram and spool with choke and kill line outlets between the ground level and rotary beams.

We do not believe that the requirements for workover and well servicing operations are necessarily relaxed in this proposal. Section G.2.C.i. and iii provides for API recommended detection equipment on completion operations. Some clarification needs to be made in section G.2.F.i. where completion, workover and well servicing operations would be required to utilize the same equipment described in the previous paragraph regarding drilling operations. Most well servicing and workover operations comply with API "Recommended Practice for Oil and Gas Well servicing and Workover Operations Involving Hydrogen Sulfide", RP-68. These standard safe practices include the use of a hydraulic or manual BOP and at least one H2S detection device placed as near to the wellhead as practical. We would not recommend raising the height of a workover rig floor to accommodate additional BOP equipment that could increase the hazards for trips and falling.

While no specific references to "safety equipment" were made in the draft, we would not recommend that a minimum safety package be defined. Section I adequately addresses the safety training and personal protection required for all persons responsible for the implementation of the contingency plan.

Previously, the workgroup developed a tiered approach to the emergency response plan and the respective actions that were necessary. The fundamental concept was that the greater the public risk, the more steps would be required in the contingency plan and in the operational requirements that would be provided in the rule. Earlier drafts had several key provisions for drilling, completions, workovers, well servicing, secondary well control, automatic safety valves or shutdowns, etc. where the requirements were only mandated when or where "the 100 ppm radius of exposure involves a public area". This phrase has been removed throughout the draft that makes all of these requirements apply

for all wells and operations. The tiered approach has been eliminated and the most stringent requirements have been imposed on all wells, operations and systems. Paragraph H. 4. will require that all of our existing operations be brought into compliance within one year. This will require every well and facility, where the H2S concentration is 100 ppm or greater, to be retrofitted with secondary well control and automatic safety valves or shutdowns. This is an onerous and expensive change that is neither reasonable nor justified. The significant changes in the proposed draft are reflected throughout the document but especially in the requirements identified in G.2.f.i. G.2.f.ii., H.2.c. and H.2.d.

Marathon Oil Company appreciates the opportunity to submit these comments on the proposed rule changes and we support the repeal of the existing Rule 118 and the adoption of the proposed rule after consideration of the substantive comments provided by industry.

Yours truly,

Walter Dueease

MARATHON
OIL COMPANY
East Indian Basin

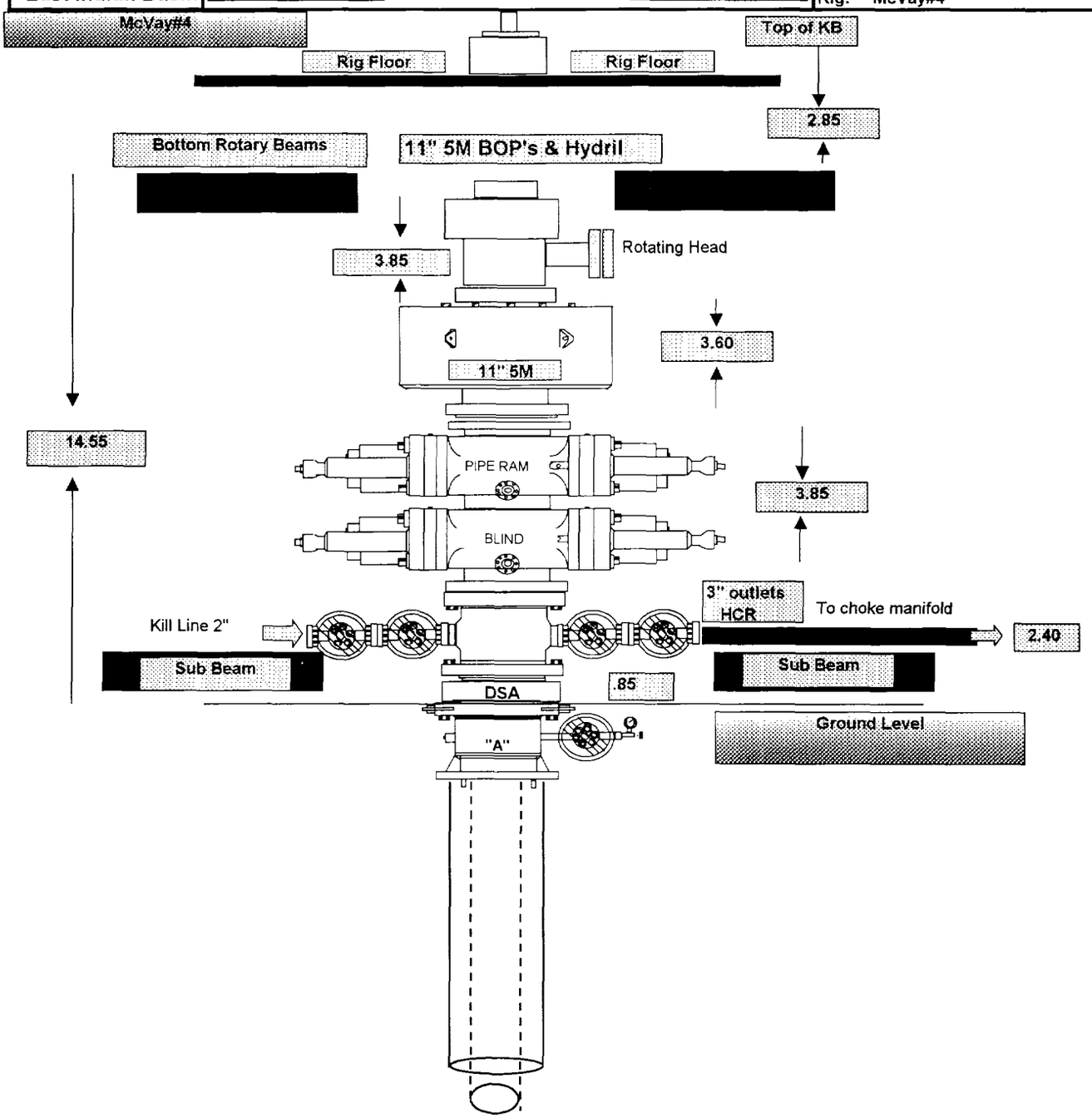
PRODUCTION PHASE

18' KB | BOP Stack Diagram | 18' KB

8-3/4" HOLE SECTION

DATE: 12-Sep-02

Rig: McVay#4



Kelly Maclaskey Oilfield Services, Inc.

P.O. Box 580
Hobbs, N.M. 88241
(505) 393-1016

September 17, 2002

Lori Wrotenbery, Director
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Case No. 12897
Hydrogen Sulfide Gas Proposed Rule

Dear Ms. Wrotenbery:

In regards to the above referenced case number, we would respectfully ask your consideration. Our treating plant located in rural Lea County is operated under the jurisdiction of New Mexico Oil Conservation Division authority.

We sincerely request the omission of the last sentence in Section "B" which refers to surface wasted management facilities. The sentence begins with "this section shall not act....".

The Division has not presented health studies or technical information to date on chronic exposure consequences to H2S, as related to surface waste management facilities. The intent of this rule should be to protect the public health and environment.

The exclusions and language in this section are inconsistent and only serve to confuse the intent and meaning of the rule.

The rule provides for additional requirements which give the Division sufficient authority to deviate from the proposed rule to protect the public health and the environment.

Sincerely,

Kelly Maclaskey

Wrotenbery, Lori

From: Marie Gutierrez [marieg@nmoga.org]
Sent: Friday, September 13, 2002 9:15 AM
To: wrotenbery@state.nm.us
Subject: Fwd: NM H2S Rule

Lori,

Bob asked that I forward this to you and hope that you will consider his a request to extend the time period. He is traveling this morning and will [illegible] Thanks.

From: Gene_Montgomery@oxy.com
To: bgantner@br-inc.com
Cc: gallagher@nmoga.org, seligman@nmoga.org, Rick_Foppiano@oxy.com, Mike_Starrett@oxy.com
Subject: NM H2S Rule
Date: Thu, 12 Sep 2002 16:57:57 -0500
X-Mailer: Internet Mail Service (5.5.2653.19)

Bruce, as I indicated in my note on Tuesday, I think the latest draft of the H2S rule has a major problem in how it has taken some of the requirements that were intended only for operations in public areas and essentially extended them to every well and operation. And, these requirements will have to be retrofitted to every well and facility within one year. The OCD has made so many changes to this latest draft it is hard to determine why they did what they did. I do know that what has been done is, in my opinion, in direct contradiction to what we have talked about in our work group meetings. For that reason we probably need to give them the benefit of the doubt and assume that such major changes in the rule were unattended and just a result of the significant editing. In any event, I recommend that NMOGA request additional time to work on this major rewrite and also ask that the work group reconvene to consider all the changes.

I have attached a list of my comments and my marked up draft of the rule for your consideration. I understand that Deborah is out this week so I am copying Bob on this note as well. I really think we need to wave the NMOGA flag for Wayne Price or Lori and let them know we have a major disconnect with this draft. Both Rick and I are available to discuss how this might be done but I don't think we should wait for a meeting next week to make them aware that we have a problem. We also may have another problem in they are asking for written comments by the 18th and the hearing is on the 20th. We may want to request an extension to file comments at least until Monday the 23rd.

Let me know what you think. Hope this helps in your meeting with IPANM on the 18th.

<<Comments on NMOCD H2S Rule dated 8-26-02.doc>> <<hydrogen-

sulfide-dr-rule-cl-8-26 EWM Comments.doc>>

Gene Montgomery

P. O. Box 4294, Houston, TX 77210-4294

Phone: (281) 552-1111 Fax: (713) 985-1240

Comments on NMOCD H2S Rule dated 8-28-02

In general a lot of sweat equity was poured into a consensus draft of the work group. Why has that work been ignored and we now appear on the verge of adopting a major rewrite of the rule that appears to violate some of the fundamental agreements that the work group was able to reach? It does not seem reasonable that the OCD would push to promulgate such a large change so quickly when they were so committed throughout most of the process in working to a consensus. The work group worked this issue in good faith with everyone focused on achieving the appropriate level of protection for the public. The process was good and the results were reasonable and appropriate. This draft is neither reasonable nor appropriate.

Definition C.11 has the parenthetic expression "(hereinafter referred to as a "potentially hazardous volume)" that is completely redundant to the term being defined and should be deleted. The definition previous had "or by the acronym "PHV" also in the parenthetic expression but that has been deleted so the entire wording should be removed.

Definition C.12 has moved the "school bus stop" from the inclusive list in the first part of the definition to the "any portion of" part of the definition. This does not seem logical that a portion of a school bus stop would be different from an entire school bus stop in determining what is a public area.

Paragraph D.1.c is not clear and probably needs to be reworded. Does this say that if a well was tested one time it never has to be tested again? Is there a distinction being made between individual well tests and representative tests?

The paragraph numbering in Section E is very difficult to read and follow. Having 5 levels of paragraphs and subparagraphs does not seem practical. The rule should be modified so that no more than 4 levels are used.

Paragraph E.1 uses the phrase "potentially significant release". This term has not been defined and could lead to confusion since we have defined the term "potentially hazardous volume". Is a "potentially significant release" different and, if so, in what way?

Paragraph E.3 will result in information being included in an emergency response plan that is not essential to the execution of the plan. In the work group drafting sessions we repeatedly discussed the importance of the emergency response plan being very succinct and easy for all parties involved to be able to understand and use. Providing some of this information with the plan should be acceptable but we believe we should not deviate from the objective of having these plans brief and easy to understand so that they will be useful documents.

The paragraph similar to paragraph E.4.C.ii has been deleted from section E.4.b yet this paragraph seems to fit there as well. Suggest the paragraph be returned.

Paragraph F.3 contains the sentence, "For any storage tank for which fencing is required, a danger sign posted at the locked gates shall suffice." This alternative should also be allowed for tanks that are fenced even when the fencing is not required. Also, it is not always appropriate to lock gates around tanks. Recommend that the word "required" be replaced with "provided" and the word "locked" be deleted.

Paragraph G.1 changes the name of API RP-49 and I do not think this is correct but do not have a way to confirm. This needs to be confirmed.

Throughout the discussions in our work group we developed a tiered approach to the emergency response plan and the actions that were necessary. The fundamental concept was that the more risk that the public was exposed to the more steps would be required in the contingency plan and in the operational requirements that would be provided in the rule. Our earlier drafts had several key provisions re drilling, completions, workovers, well servicing, secondary well control, automatic safety valves or shutdowns, etc. where the requirements were only mandated when or where "the 100 ppm radius of exposure involves a public area". This phrase has been removed throughout the draft which makes all these requirements apply for all wells and operations. The tiered approach has been eliminated and the most stringent requirements have been imposed on all wells, operations and systems. This is a major departure from the philosophy we have discussed in all of our meetings! And, Paragraph H.4 will require that all of our existing operations be brought into compliance within one year. This in essence means that every well and facility where the H2S concentration is 100 ppm or greater will have to be retrofitted with secondary well control and automatic safety valves or shutdowns. This is an extremely onerous and expensive change that I do not believe is reasonable or justified. The sheer number and magnitude of the changes that have been made to this latest draft makes it virtually impossible to identify all the places where this applies but for sure the requirements in G.2.f.i, G.2.f.ii, H.2.c, and H.2.d.

The last sentence in Paragraph H.3 states, "Any tank or tank battery that requires fencing pursuant to this section may substitute a danger sign posted at the gates for chaining and signs." As commented earlier the test should be if fencing is provided and not just required but in this case the entire sentence should be struck. A sign at a gate is not an adequate substitute for restricting access to a stair or ladder that provides access to a tank with 300 ppm or more of hydrogen sulfide in the vapor space. In this case the sign is only a good secondary measure but restricted access is the better precaution.

Section L is titled "Release" which connotes much more that the content of this section. Suggest that the title of this section be changed to "Activation and Notification". Further, the first sentence of this section states, "Upon a release of hydrogen sulfide the following actions must be taken:" This sentence is definitely misleading and fundamentally not correct. Recommend this sentence be deleted. The two paragraphs in this section could be retained as two unnumbered sentences in the section with the titles removed.

Section M continues to present a problem for some small operators who lack the capability to provide documents in electronic format. Also, the entire industry could

encounter problems if the electronic format the division requires is not a generally accepted format.

19.15.2.52 Hydrogen Sulfide Gas (Hydrogen Sulfide)

A. In General. Hydrogen sulfide gas 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.

B. Applicability. 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. This section shall not act to exempt or otherwise excuse surface waste management facilities permitted by the division pursuant to 19 NMAC 15.I.711 from more stringent conditions on the handling of hydrogen sulfide required of such facilities by 19 NMAC 15.I.711 or more stringent conditions existing in permits issued thereunder, nor shall such facilities be exempt or otherwise excused from the requirements set forth in this section by virtue of permitting under 19 NMAC 15.I.711.

C. Definitions (specific to this section).

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

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

3. Area of Exposure. The phrase "area of exposure" means the area within a circle constructed with the point of escape at its center and the radius of exposure as its radius.

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

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

6. 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 hydrogen sulfide. 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 or the best estimate of that rate. For an oil well, the escape rate shall be calculated by multiplying the producing gas/oil ratio by the maximum daily production rate or the best estimate thereof. For an oil or natural gas well drilled in a developed area, the escape rate may be determined by using data from offset wells completed in the interval in question, or using some other reasonable means to calculate the escape rate. For facilities or operations not mentioned, the escape rate shall be calculated using the actual flow of the gaseous mixture through the facility or operation.

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

8. 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.

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

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

11. Potentially Hazardous Volume ~~(sometimes referred to as a "potentially hazardous volume")~~ 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;

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

c. the 100-ppm radius of exposure is equal to or in excess of 3,000 feet.

12. Public Area. A "public area" is any building or structure that is not associated with the well, operation or system for which the radius of exposure is being calculated and that is used as a dwelling, office, place of business, church, school, hospital, school bus stop or government building, or any portion of a park, city, town, village or designated by state or federal or other similar area where members of the public may reasonably be expected to be present.

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

14. Radius of Exposure. The radius of exposure (hereinafter referred to as "radius of exposure" or "ROE") is that radius constructed with the point of escape as its starting point and its length 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: $X= [(1.589)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$, where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60°F).

~~or~~

b. For determining the 500-ppm radius of exposure: $X=[(0.4546)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$, where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60°F).

c. For a well being drilled, completed, recompleted, worked over or serviced in an area where insufficient data exists 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.

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 wells, operations or systems. A representative sample or process knowledge may be used in lieu of individual testing of wells, operations or systems provided that the person, operator or facility can demonstrate that the concentration derived from the representative sample or process knowledge is reasonably representative of the hydrogen sulfide concentration within the well, operation or system.

b. The tests used to make the determination 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 well, operation or system 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 and the test is considered to still be representative of the well's production.

2. Tested Concentrations Below 100 ppm. If the concentration of hydrogen sulfide in a given well, operation or system is less than 100 ppm, no further actions shall be required pursuant to this section.

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

a. If the concentration of hydrogen sulfide in a given well, operation or system 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 is present, the person, operator or facility shall provide the results of the determination of the hydrogen sulfide concentration and the calculation of the radius of exposure to the division. For a well, operation or system existing on the effective date of this section, the determination, calculation and submission required herein shall be accomplished within 180 days of the effective date of this section; for any well, operation or system that commences operations after the effective date of this section, the determination, calculation and submission required herein shall be accomplished before operations begin.

4. Recalculation. The person, operator or facility shall calculate or recalculate the radius of exposure if an operational change or production alteration causes the hydrogen sulfide concentration in

a well, operation or system to increase to 100 ppm or greater or, if the hydrogen sulfide concentration in a well, operation or system was already 100 ppm or greater, causes a 25% or greater increase in the actual volume fraction of hydrogen sulfide. If calculation or recalculation of the radius of exposure reveals that a potentially hazardous volume is present, the person, operator or facility shall provide the results to the division within thirty (30) days.

E. Hydrogen Sulfide Contingency Plan. [Can numbering be improved so that 5 levels of paragraphs are not needed in this section?]

1. In General. A hydrogen sulfide 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 that could produce a potentially hazardous volume. The hydrogen sulfide contingency plan must be developed in accordance with the following paragraphs.

2. When Required. A hydrogen sulfide contingency plan must be prepared whenever a potentially hazardous volume of hydrogen sulfide is present or may reasonably expected to be encountered.

3. Input of Emergency Response Authorities and the Division. The person, operator or facility shall develop a proposed hydrogen sulfide contingency plan and provide a copy to the division, the New Mexico department of public safety (*i.e.*, the New Mexico state police), and the local emergency planning committee. If the potential source of release is within a municipality, a copy shall be provided to the municipal police and fire department. If the potential source of the release is outside the boundaries of a municipality, a copy shall instead be provided to the county sheriff and the county fire department or departments. Input on the proposed plan shall be sought from each of the foregoing; if an emergency response authority provided with a copy of the proposed plan fails to provide input or fails to respond at all, that fact shall be noted in the transmittal of ~~stated in~~ the final hydrogen sulfide contingency plan submitted to the division. The input provided by the emergency response authorities shall be considered when preparing the final plan for submission to the division but failure to include any specific suggestion shall not affect the validity of the plan or cause disapproval of the plan by the division.

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 hydrogen sulfide requiring activation shall be included in each hydrogen sulfide contingency plan, including provisions for alerting and accounting for personnel, controlling any release of hydrogen sulfide gas, eliminating possible ignition sources, alerting the public (directly or through appropriate government agencies), evacuating persons in the affected area, using the call list to alert company officials and emergency response authorities, making recommendations to public officials to block access to affected areas and conducting evacuations and coordinating emergency response with emergency response authorities. A plan that addresses the items described in paragraph 7.6 of 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, most recent edition, shall be adequate for this purpose;

ii. A call list including the following as applicable:

aa. local supervisory personnel;

bb. county sheriff;

cc. department of public safety and state police;

dd. city or municipal police;

ee. 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 hydrogen sulfide contingency plan:

~~i. 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).~~

ii. A plat or map detailing the area of exposure, including the locations of public roads; and

~~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 hydrogen sulfide contingency plan:

i. 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;~~

~~ii. 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).~~

iii. A plat or map detailing the area of exposure, including the locations of public areas and public roads;

iv. The names and telephone numbers of all persons living within the area of exposure and contact persons for areas of public concentration such as churches, schools, hospitals, offices and places of business;

v. Provision for advance briefing of affected persons within the radius of exposure. Such advance briefing shall include the hazards and characteristics of hydrogen sulfide, the necessity for a hydrogen sulfide 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;

vi. In lieu of the provision for advance briefing of persons within the radius of exposure described in the previous subsubparagraph, a reaction-type plan may be prepared and submitted that provides for mass notification of a release of hydrogen sulfide and for evacuation of affected areas; and

vii. Additional support information, if applicable, such as the location of emergency evacuation routes, the location of safety and life-support equipment, the location of facilities containing hydrogen sulfide, 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. The hydrogen sulfide contingency plan shall be submitted to the division and a copy shall be submitted to the local emergency planning committee, if one exists. A hydrogen sulfide contingency plan for a well, system or operation existing on the effective date of this section shall be submitted within 180 days from the effective date of this section. A hydrogen sulfide contingency plan for a new well, system or operation shall be submitted before operations commence. A hydrogen sulfide contingency plan shall be submitted within 180 days if a public area or public road is established that creates a potentially hazardous volume where none previously existed. The hydrogen sulfide contingency

plan for a drilling, completion, workover or well servicing operation may be submitted separately or along with the application for permit to drill (APD).

6. Failure to Submit Plan. Failure to submit a hydrogen sulfide 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 hydrogen sulfide 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, or if a new public area and/or a new public road is established that creates a potentially hazardous volume. The person, operator or facility shall submit any amendments to the division and to the local emergency planning committee. Reasonable efforts shall be taken to update on an annual basis the lists of names and telephone numbers in the hydrogen sulfide contingency plan.

8. Retention and Inspection. The hydrogen sulfide 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.

F. Signage at Wells, Facilities or Operations. For every well, operation or system to which this section applies that contains a concentration of hydrogen sulfide of 100 ppm or greater, the person, operator or facility must provide signage as set forth herein.

1. Drilling, Completion, Workover, and Well Servicing Operations. A danger or caution sign shall be displayed at each drilling, completion, workover and well servicing operation along each point of access 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 use equivalent language approved by the division, and shall state in smaller lettering: "Do Not Approach If Red Flag is Flying" or use 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, or in another color approved by the division. 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 that allows vehicles to turn around at a safe distance prior to reaching the site.

2. Crude Oil Pump Stations, Producing Wells, Tank Batteries and Associated Production Facilities, Refineries, Gas Plants and Compressor Stations. A danger sign or signs shall be posted within 50 feet of each crude oil pump station, producing well, tank battery and associated production facility, refinery, gas plant and compressor station 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 use 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, or in another color approved by the division. The signs shall be legible and large enough to be read by all persons entering the 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.

3. Tanks or Vessels. A danger sign or signs shall be posted 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~~provided, 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 or another color approved by the division. The sign(s) shall be legible and large enough to be read by all persons entering the site.

G. Protection from Hydrogen Sulfide During Drilling, Completion, Workover, and Well Servicing Operations.

1. API Standards. All drilling, completion, workover and well servicing operations where it is reasonably expected that a potentially hazardous volume of hydrogen sulfide will be encountered 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 Drilling and Well Servicing Operations Involving ~~of~~ Wells Containing Hydrogen Sulfide," RP-49 [The title of RP-49 has been changed in this draft. Has API actually changed the title?], most recent edition.

2. Minimum Standards. At a minimum, each drilling, completion, workover and well servicing operation where a potentially hazardous volume of hydrogen sulfide may reasonably be expected to be encountered shall be conducted in accordance with the following:

a. Before Commencing Operations. Hydrogen sulfide training shall be completed 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.

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

c. 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.

ii. The detection system shall be calibrated and 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.

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

d. Wind Indicators.

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

e. 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. Flare outlets shall be located at least 150 feet from the well bore. 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.

f. Use of Well Control Equipment. When the 100 ppm hydrogen sulfide radius of exposure includes a public area, the following well control equipment shall be used.

i. Drilling. A remote controlled choke and accumulator shall be installed and operational at all times beginning when drilling is within 500 feet of the formation believed to contain hydrogen sulfide and continuously thereafter during drilling. The remote controlled choke must include, at a minimum, a pressure and hydrogen sulfide-rated well control choke and kill system including manifold and blowout preventer that meets or exceeds the specifications API-16C and API-RP 53 or other specifications approved by the division. 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, according to the requirements of this part, or otherwise as approved by the division.

ii. Completion, Workover and Well Servicing. If feasible, the equipment described in the previous subsubparagraph shall be installed and operational at all times during completion, workover and well servicing of a well. If not feasible, a suitable alternative to a remote choke such as a remote-controlled valve or blow out preventer with remote accumulator may be used, so long as the alternative equipment will be protective of public safety.

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

h. Well Testing. Except with prior approval by the division, drill-stem testing of a zone that contains hydrogen sulfide shall be closed chamber only, in that formation fluids shall not be permitted to flow to the surface.

3. If Hydrogen Sulfide Encountered During Operations.

a. If hydrogen sulfide was not anticipated at the time the division issued a permit to drill but is encountered during drilling in a concentration of 100 ppm or greater in the gaseous mixture, the operator shall immediately ensure control of the well, suspend drilling operations unless detrimental to well control, take whatever measures are necessary under the circumstances to assure public safety, calculate the radius of exposure and, if a potentially hazardous volume is present, prepare a hydrogen sulfide contingency plan and obtain materials and equipment to bring 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.

b. 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, 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 if specifically approved by the division.

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

1. API Standards. Operations at crude oil pump stations and producing wells, tank batteries and associated production facilities, refineries, gas plants and compressor stations containing a potentially hazardous volume of hydrogen sulfide shall be conducted with due consideration 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.

2. Minimum Standards. At a minimum, operations at crude oil pump stations and producing wells, tank batteries and associated production facilities, refineries, gas plants and compressor stations containing a potentially hazardous volume of hydrogen sulfide shall also be conducted in accordance with the following subparagraphs and subsubparagraphs.

a. 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 building or structure used as a dwelling, office, place of business, church, school, hospital or government building or within 1/4 mile of a park, playground or school bus stop. The fence shall consist of a 5-foot chain link topped by two stands of barbed wire or other design approved by the division. Gates shall be locked when unattended.

b. Wind Direction Indicators. Wind direction indicators shall be required.

c. Secondary Well Control. When the 100 ppm hydrogen sulfide radius of exposure includes a public area, any well 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.

d. Automatic Safety Valve or Shutdown. When the 100 ppm hydrogen sulfide radius of exposure includes a public area, any well shall possess an automatic safety valve or shutdown at the facility or wellhead or other appropriate shut-in control. The automatic safety valve shall

be set to activate upon a release of a volume of hydrogen sulfide that may create a concentration of hydrogen sulfide of 100 ppm in any public area, 500 ppm at any public road or 100 ppm 3,000 feet from the site of release. A pressure switch or other mean to detect a possible release that deactivates a well pump is a acceptable shutdown so long as the re-start of the pump will not result in a potentially hazardous volume

3. Tanks or vessels. Each stair or ladder leading to the top of any tank or vessel containing 300 ppm or more of hydrogen sulfide in the gaseous mixture shall be chained or marked to restrict entry. ~~Any tank or tank battery that requires fencing pursuant to this section may substitute a danger sign posted at the gates for chaining and locking.~~

4. Compliance Schedule. Each existing crude oil pump station and producing well, tank battery and associated production facility, refinery, gas plant and compressor station 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. 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.

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

J. Standards for Equipment That May Be Exposed to Hydrogen Sulfide. Persons, operators and facilities shall choose equipment with consideration for both the hydrogen sulfide working environment and anticipated stresses. NACE Standard MR0175 (latest edition) or some other standard approved by the division 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 hydrogen sulfide shall be used.

K. Exemptions. Any person, operator or facility may petition the director for an exemption to any requirements of this section. 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. 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.

L. ~~Release. Upon a release of any amount, the following actions must be taken:~~Activation and Notification

~~1. Activation of the Hydrogen Sulfide Contingency Plan.~~ The hydrogen sulfide contingency plan shall be activated in the event of a release that may create a concentration of hydrogen sulfide of 100 ppm in any public area, 500 ppm at any public road or 100 ppm 3,000 feet from the site of release.

~~2. Notification of the Division.~~ The person, operator or facility shall notify the division upon a release of hydrogen sulfide requiring activation of the hydrogen sulfide contingency plan, preferably within one hour of discovery of the release, but 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.

M. Electronic Submission. Any submission to the division required by this section shall be made electronically in a generally accepted format that is compatible with the division's systems.

N. 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.

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September 12, 2002

VIA HAND DELIVERY

Lori Wrotenbery, Director
Oil Conservation Division
New Mexico Energy, Minerals &
Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Case No. 12897: Application of the New Mexico Oil Conservation Division Through the Environmental Bureau Chief, for the Adoption of Amendments to Division Rule 118 (Hydrogen Sulfide Gas): Commission Revisions to the Proposed Rule.

Dear Ms. Wrotenbery:

Controlled Recovery Inc. ("CRI") appreciates the opportunity to comment on the draft H_2S Rule circulated by the Commission letter dated August 30, 2002.

Section B (Applicability.) The added language is unnecessary, confusing, and should be deleted.

The original draft of the proposed Rule presented at the public hearing applied to all operations and facilities subject to the jurisdiction of the Division. After the public hearing the Division sought to exclude surface waste management facilities from the Scope of the proposed rule without any discussion of this exclusion at the public hearing, and without any real justification. The Commission has wisely determined that this exclusion is unwarranted and that with respect to H_2S, surface waste management facilities should be treated like other regulated activities.

This return to the original intent of the proposed H_2S Rule is best accomplished by elimination of the underlined language in Section B. Section E(4)(d) of the proposed Rule already authorizes the Division to impose additional H_2S requirements "based on site-specific conditions, population density or special circumstances." The underlined language in Section B is superfluous given the Division's authority under Section E(4)(d) to impose more stringent requirements where warranted by individual circumstances.

Moreover, the reference in the underlined language to "more stringent conditions" under Rule 711 is vague and confusing. Rule 711 does not contain "more stringent conditions," it simply states that an application for a new surface waste management facility (Form C-137) must be accompanied by a "Hydrogen Sulfide (H_2S) Prevention and Contingency Plan to protect public health." Rule 711 makes no further reference to H_2S. As the Commission recognized at the August 30th hearing, no inconsistency exists between Rule 711 and the proposed H_2S Rule. In fact, the two Rules complement each other quite nicely without the underlined language in Section B. Section E of the proposed Rule establishes when the Contingency Plan referenced in Rule 711 is required and what must be included within that plan. To the extent that "site-specific conditions, population density or special circumstances" exist at *any* facility in New Mexico requiring additional H_2S considerations, the proposed Rule already authorizes the Division to impose additional requirements. *See* Section E(4)(d). Thus the underlined language in Section B is not only confusing, but also unnecessary and should be deleted.

Section E(2) (When a Contingency Plan is Required). This section has been modified slightly from the 1st draft circulated at the public hearing and the 2nd draft circulated by the Division after the public hearing. The language "or may reasonably expected to be encountered," has now been added. This language is confusing and should be deleted.

First, Section D(2) states that if testing reveals concentrations of less than 100 ppm, then "no further actions shall be required pursuant to this section." The added language to Section E(2) appears inconsistent with Section D(2) and could be read as requiring a Contingency Plan whenever a potentially hazardous volume "may reasonably" be expected to be encountered. The proposed Rule does not indicate what is meant by "or may reasonably expected to be encountered" or how that determination is to be made. The only suggestion found in the Rule as the meaning of this phrase is in Section C(14)(c), which addresses wells for which insufficient data exists. As a result, the underlined language in Section E(2) is confusing.

Second, the elements of a Contingency Plan include submissions based on the radius of exposure of potentially hazardous volumes. *See* Section E(4). A radius of exposure is not calculated unless testing reveals concentrations in excess of 100 ppm. *See* Section D(2). It therefore follows that no Contingency Plan is required if testing reveals concentrations of less than 100 ppm.

Finally, if the tested concentration or the calculation of the radius of exposure results in the absence of a potentially hazardous volume, then there is no rationale for requiring the development and filing of a Contingency Plan. Indeed, Section E(5)

confirms that a Contingency Plan is not required until "a public area or public road is established that creates a potentially hazardous volume where none previously existed." To avoid any confusion, the underlined language in Section E(2) should be deleted so that it is consistent with Section E(5) and clearly states that a Contingency Plan is only required when "a potentially hazardous volume of hydrogen sulfide is present."

General Comment. The proposed H_2S Rule uses the term "radius of exposure" and the term "area of exposure." The definitions of these terms appear virtually identical. The purpose for distinguishing between these terms is not clear and appears to be unnecessary.

Thank you for your attention to these matters.

Sincerely,

Michael H. Feldewert

MHF/js
cc: Robert Lee, Ph.D., Commissioner
Jamie Bailey, Commissioner
Steve Ross, Attorney for the Commission
David Brooks, Attorney for the Division
Roger Anderson, Environmental Bureau Chief
Ken Marsh, President of CRI
New Mexico Oil & Gas Association