STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:	)	CASE NO. 12,897
APPLICATION OF THE NEW MEXICO OIL CONSERVATION THROUGH THE ENVIRONMENTAL BUREAU CHIEF FOR THE ADOPTION OF AMENDMENTS TO DIVISION RULE 118 CONCERNING HYDROGEN SULFIDE GAS	)	

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

COMMISSION HEARING

BEFORE: LORI WROTENBERY, CHAIRMAN
JAMI BAILEY, COMMISSIONER
ROBERT LEE, COMMISSIONER

July 19th, 2002

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Commission, LORI WROTENBERY, Chairman, on Friday, July 19th, 2002, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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I N D E X

July 19th, 2002
Commission Hearing
CASE NO. 12,897

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E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	14	95
Exhibit 2	10	95
Exhibit 3	25	27

* * *

A P P E A R A N C E S

FOR THE COMMISSION:

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FOR THE DIVISION:

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FOR CONTROLLED RECOVERY, INC.:

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Santa Fe, New Mexico 87504-2208
By: WILLIAM F. CARR

(Continued...)

A P P E A R A N C E S (Continued)

ALSO PRESENT:

RICHARD EZEANYIM
NMOCD Chief Engineer

RICK FOPPIANO
OXY USA

TOM NANCE
Independent Petroleum Association of New Mexico

DEBORAH D. SELIGMAN
New Mexico Oil and Gas Association

* * *

WHEREUPON, the following proceedings were had at 9:00 a.m.:

CHAIRMAN WROTENBERY: We'll get started this morning. This is the meeting of the Oil Conservation Commission. It's July 19th, 2002. We're here in Porter Hall in Santa Fe, New Mexico.

I'm Lori Wrotenbery, I serve as chair of the Commission.

To my right is Jami Bailey. She represents Land Commissioner Ray Powell on the Commission.

To my left is Robert Lee from the Petroleum Recovery Research Center, who serves as the appointee to the Commission of the Secretary of the Energy, Minerals and Natural Resources Department.

We also have Florene Davidson to my far right, who's Commission secretary. Most of you know her.

Steve Ross, Commission legal counsel is to Commissioner Lee's left.

And then the court reporter, Steve Brenner, will be keeping the minutes of this particular meeting.

We have several cases on the agenda, a couple of which have been continued. Let me just make a brief announcement for the record on those.

Case 12,622, the Application of Nearburg Exploration Company, L.L.C., for two nonstandard gas

spacing and proration units, in Lea County, New Mexico, which is being heard *de novo* upon the application of Nearburg Exploration Company, L.L.C., has been continued at the request of the parties to the August 30th, 2002, meeting of the Commission.

Also the Application of the Oil Conservation Division to amend and adopt rules pertaining to surface commingling -- that's Case 12,867 -- has been continued to the September 27th, 2002, hearing of the Commission.

And Case 12,828, the Application of David H. Arrington Oil and Gas, Inc., for compulsory pooling in Lea County, New Mexico, is continued at the request of the Applicant for a *de novo* hearing, which is Yates Petroleum Corporation, and with the concurrence of the other parties the case has been continued to December 13th, 2002.

And so we have two matters to take up today, besides the minutes of the June 21st hearing, which we can defer till later in the agenda.

The first is Case 12,897. This is the Application of the New Mexico Oil Conservation through the Environmental Bureau Chief for the adoption of amendments to Division Rule 118 concerning hydrogen sulfide gas. The Division proposes to repeal existing Rule 118 and to adopt new Rule 52 in lieu thereof. The proposed Rule prescribes precautionary and warning measures and requires contingency

plans to provide for management of releases of hydrogen sulfide gas. This proposed Rule will apply statewide.

Right now I'll call for appearances in this matter.

MR. BROOKS: May it please the Commission, I'm David Brooks, Energy, Minerals and Natural Resources Department of the State of New Mexico, appearing for the Oil Conservation Division, and I have three witnesses.

CHAIRMAN WROTENBERY: Anybody else?

MR. FOPPIANO: Rick Foppiano representing OXY.

MR. NANCE: Tom Nance representing the Independent Petroleum Association of New Mexico.

MR. CARR: May it please the Commission, my name William F. Carr, Holland and Hart, L.L.P., Santa Fe. We represent Controlled Recovery, Inc. We support the Rule as drafted.

CHAIRMAN WROTENBERY: Thank you. Anybody else wish to enter an appearance here?

At this point I'll just ask anybody who plans to testify at this proceeding to stand and be sworn.

Mr. Brooks, you said you had three witnesses, Mr. Foppiano and -- Okay, Mr. Nance?

MR. NANCE: I want to make some comments.

CHAIRMAN WROTENBERY: Okay. We'll well make sure that you're sworn.

(Thereupon, the witnesses were sworn.)

CHAIRMAN WROTENBERY: Thank you.

Okay, Mr. Brooks, would you like to get us started?

MR. BROOKS: Yes, we are -- Well, I'll just make a brief statement before we begin.

The presentation of this Rule is the process of a lengthy process of preparation that began in the year 2000 to re-evaluate and re-write the Division's Rules concerning hydrogen-sulfide gas safety. And there has been extensive input from industry and other groups, and on behalf of the Environmental Bureau of the Division I believe we can state that we have come up with a rule which addresses most of the concerns that have been raised. And so I want to allow the Environmental people to tell you about it.

For that purpose we'll begin by calling Randy Bayliss -- Oh, wrong order. We were told he was going to put him on first, but that means before Wayne.

Call Roger Anderson.

ROGER C. ANDERSON,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BROOKS:

Q. Good morning, Mr. Anderson.

A. Good morning.

Q. Would you state your name for the record, please?

A. My name is Roger C. Anderson.

Q. And where do you reside?

A. In Santa Fe, New Mexico.

Q. And by whom are you employed?

A. The Oil Conservation Division of the Energy, Minerals and Natural Resources Department.

Q. And in what capacity?

A. I am the Environmental Bureau Chief.

Q. And what are your duties as Environmental Bureau Chief?

A. My duties are to manage the Bureau in permitting and compliance actions in the oil and gas industry to protect public health and the environment?

Q. And do you oversee a staff?

A. I do.

Q. And how many people do you have working --

A. I have six staff members, six technical staff members, working in the Bureau.

Q. And one of your duties in that capacity is to periodically review and re-evaluate the regulatory framework that the Division has for environmental protection?

A. That is correct.

Q. You have a stack of exhibits in front of you. I will call your attention to Exhibit Number 2. Now, is Exhibit Number 2, is that related to what you see up on the screen there?

A. Yes, it is.

Q. All right, and looking at Exhibit 2, the front of Exhibit 2, you're looking at the same thing that is on the screen, correct?

A. That is correct.

Q. Now, the multiple pages of Exhibit 2, are those hard copies of the Power Point presentation that's been prepared for this hearing?

A. That is correct.

Q. Very good. Then I will ask you to turn to the second page of Exhibit 2 and also put it up on the screen. When and how did the present re-evaluation of the hydrogen-sulfide rules originate?

A. Back in the winter -- fall to winter of 2001, Director Wrotenbery asked our Bureau to review the current Rule 118 as it stands now, based on public safety aspects, to see if the Rule is adequate to perform the protection of public safety.

Q. Now, you said the fall and winter of 2001. That would have been, would it not, the fall of 2000 and the winter of 2001, because it was before the spring of 2001,

correct?

A. That's correct, that should be winter, 2000.

Q. Yeah, it says winter, 2001, and of course that began on January 1, 2001 --

A. Correct.

Q. -- but the preceding fall --

A. Correct.

Q. -- would have been the fall of 2000?

A. Correct.

Q. Okay, then what did you do?

A. At that time, we started gathering information and standards and other rules from other governmental agencies, other states, from industry organizations such as the API and ASTN and things like that, and reviewed those standards to see if our rules were protective and actually included most of those standards, to see if they included those standards, at which time we decided they did not.

So we conducted some air-dispersion models to determine dispersion based on the climatological data in New Mexico and had peer review of those models, in-house peer review of those models, and came up with a new proposal that we felt would be protective of the public safety in New Mexico.

Q. Okay, and explain what you mean by peer review.

A. Peer review is in-house. All of the calculations

and models that we ran were given to a registered engineer on staff who, up until that time, did not have anything to do with the meetings, the work-group meetings or anything like that.

Q. Okay.

A. It was an independent study of what Wayne had done.

Q. And who was the independent?

A. Mr. Randy Bayliss was the member of our staff.

Q. Very good. Then going into the summer of 2001 and on into 2002, what did you do?

A. Okay, that appears on slide 2 of the presentation, and at that time the Division set up a work group comprising of industry, public representatives and other governmental agencies, and held meetings in Hobbs, Farmington and Santa Fe to discuss the draft proposal that we had come up with and make changes if necessary.

We used numerous methods for gaining inputs, electronic mail, there were comments posted on the Division's bulletin board on our website, of course the typical snail-mail-type comments and things like that.

We attempted to maintain an open dialogue with all industry, the public and environmental groups to try and incorporate any concerns that may have been raised.

Q. Do you have a list of the people who participated

in the work group available in case the Commissioners --

A. I do.

Q. -- would like to --

A. I do, and that appears in slide number 3. The New Mexico Oil and Gas Association had members on the work group, IPANM had members, BLM, there were three municipalities, two of which were LEPC -- I believe they were the heads of the LEPC.

Q. And what does LEPC stand for?

A. The local emergency planning committee.

Q. Okay.

A. And then the OCD Environmental Bureau and Max Johnson from the Department of Public Safety.

Q. Okay, then go back to slide 2 and finish telling us what you did.

A. Okay, after the series of meetings with industry and public members and other governmental agencies, in June of this year we drafted the final Rule that was submitted and -- with the Application to the Commission for hearing and consideration.

Q. And was the legal staff involved in drafting the Rule?

A. Yes, it was.

Q. Okay, very good. Is there anything else you would like to tell the Commission at this point?

A. Do you want to submit this now?

Q. Well, yeah. I'll go ahead -- I'll do that after -- if you have --

A. Okay.

Q. -- anything else you want to say --

A. There are no more --

Q. -- about the process, then we'll --

A. -- no more comments on the process.

Q. Very good. I will then call your attention to what has been marked as OCD Exhibit Number 1 and ask you to identify it.

A. OCD Exhibit Number 1 is a current updated copy of the Rule in redline and strikeout, that has changes from the original Exhibit A that was attached to the Application for consideration of the Rule.

Q. Okay, so the redlining on Exhibit 1 represents changes to the Rule as it was submitted with the Application in this case, correct?

A. That is correct.

Q. And most of these changes are correction of typographical errors, but can you point to -- I believe there are a few that are substantive. Would you point those out for the benefit of the Commission?

A. That is correct. All but, I believe, two are just typographical errors or grammar errors, something like

that.

The two that are substantive is the -- on D -- I believe it's D.4, and this was an omission. It was in the draft but not in the one that was put in the Application. The addition of "actual volume fraction of", and --

Q. That's on page 2, right?

A. Page 2, D.4.

Q. Just about an inch up above the bottom of the page?

A. That's correct.

Q. Okay.

A. And Wayne will explain the significance of that.

Q. Right.

A. And the -- Oh, and there was a change in the electronic submission --

Q. Okay.

A. -- to a format that was compatible with the Division systems.

Q. Okay, very good. Is there anything else you would like to say about this draft?

A. No.

MR. BROOKS: Very good, I will pass the witness.

CHAIRMAN WROTENBERY: Commissioners, would you like to ask questions now or hold them until we've heard the entire presentation?

COMMISSIONER BAILEY: I have a question on process. I notice that the Environment Department Air Quality Bureau was not a part of the process. How does this proposed Rule relate to Environment Department requirements for air quality?

THE WITNESS: Commissioner Bailey, members of the Commission, it does not. This Rule is intended for a public safety rule.

The air-quality requirements are public-health requirements, and we did -- To get into public-health requirements, we're looking at extremely small concentrations of hydrogen sulfide. We were looking at the public-safety aspect, the potential for imminent death or something like that, rather than long-term illnesses. So we did not involve the Environment Department in it.

And the Division itself does not have air-quality jurisdiction.

COMMISSIONER BAILEY: So is there complementary requirements between this proposed Rule and air-quality requirements, or is there a discrepancy?

THE WITNESS: Commissioner Bailey, members of the Commission, I don't know that there is a conflict between the rules. There are ambient air quality standards for the State of New Mexico that the Environment Department enforces. That is not to say that we do not have our own

public safety concerns.

It is true that there are more stringent air-quality standards that we do not enforce, but I don't believe the two agencies would be in conflict in enforcing each of their own individual rules.

MR. EZEANYIM: I wanted to help to answer that question, maybe to help Commissioner Bailey. I want to ask --

MR. BROOKS: Okay, let the record reflect that the speaker is Richard Ezeanyim, the Engineering Bureau Chief of the Oil Conservation Division. You may proceed.

MR. EZEANYIM: Commissioner Bailey, the Air Quality Bureau doesn't have any jurisdiction over H_2S, so we don't have any authority to enforce it.

So there's no -- quote, unquote -- you know, correlation between the Environmental Bureau of the OCD and the Air Quality. So we don't -- because it's not a criteria -- OCD doesn't -- H_2S. So the H_2S -- is only done at OCD.

COMMISSIONER BAILEY: Thank you.

MR. BROOKS: Okay, any other questions for Mr. Anderson?

CHAIRMAN WROTENBERY: Not right now, anyway.

MR. BROOKS: You may stand down.

Call Randy Bayliss.

RANDY BAYLISS,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BROOKS:

Q. Good morning, Mr. Bayliss.

A. Good morning, David.

Q. State your name for the record, please.

A. I am Randy Bayliss.

Q. And where do you reside?

A. Santa Fe.

Q. And by whom are you employed?

A. The Oil Conservation Division.

Q. In what capacity?

A. I am a hydrologist.

Q. Now, Mr. Bayliss, have you testified before the New Mexico Oil Conservation Commission previously?

A. No, I have not.

Q. Would you briefly state your educational and professional qualifications?

A. I have a bachelor's in chemical engineering and a master's in civil and environmental engineering, and I am a professional engineer registered in New Mexico, Alaska and Arkansas, 16 years' experience with state regulatory agencies prior to this, 14 years' experience as a

consultant, and I've also worked in this kind of work when I was in the Army, three years.

Q. When you say "this kind of work", what are you referring to?

A. Environmental work, that dealing with air pollution or water pollution.

Q. And have you made a study of hydrogen-sulfide gas as relates to regulation thereof for public health and safety?

A. Yes, I have.

Q. And were you the Randy Bayliss that was referred to a minute ago that did peer review of the hydrogen-sulfide plan at the request of Mr. Anderson?

A. I have been called that. Yes.

MR. BROOKS: Honorable Commissioners, we submit Mr. Bayliss as an expert in environmental engineering and specifically in hydrogen sulfide regulation.

CHAIRMAN WROTENBERY: We accept Mr. Bayliss's qualifications.

Q. (By Mr. Brooks) Very good. Mr. Bayliss, would you tell us a little bit about hydrogen sulfide in general terms.

A. Hydrogen sulfide is the leading cause of sudden death in the workplace. This is an agency finding by NIOSH, which is a department of the CDC, NIOSH meaning the

National Institute for Occupational Safety and Health, and the CDC meaning the Communicable Disease Center.

If you were to look through this book of chemical hazards, you would be hard-pressed to find something more toxic than hydrogen sulfide. I looked, and I could only find one poison gas in there that was listed as more toxic. Hydrogen sulfide is just as toxic as hydrogen cyanide, which, as you probably know, is a gas used for gas chambers, for poisoning people on purpose.

I recently gave a training class for our OCD staff in Hobbs, and nearly everybody at this class had personal experiences or was aware of people or friends of theirs in the industry who had died because of hydrogen-sulfide exposure.

Q. Hydrogen sulfide is -- when we talk about toxic gases we use a measure of parts per million, do we not?

A. This is correct.

Q. Could you explain parts per million?

A. I can. Parts per million is a relative measure, something like percent. And in this context we're speaking of parts per million in terms of volume per million parts of volume. If you were to look at this room and say this room contains, say, a million gallons of air, then we would take one gallons of H_2S, pure hydrogen sulfide, and release it and spread it throughout the room, and that would be one

part per million.

So in this context it means cubic feet per million cubic feet or gallons per million gallons. It's something like percent.

Q. And the toxicity of an environment which contains hydrogen sulfide depends, does it not, on the concentration?

A. That's correct.

Q. Now, at low concentrations, can hydrogen sulfide be readily detected by the sense of smell?

A. Absolutely, it is probably the most nose-sensitive gas going around. If you were to make a list of things that you smell easily, hydrogen sulfide is probably the most odorous thing on the market.

Q. Roger, Mr. Anderson, suggested yesterday afternoon that he had a small test vial of hydrogen sulfide, and he suggested the possibility of releasing it in the hearing room this morning. What would happen if he did that?

A. It would be very small --

(Laughter)

A. -- otherwise I would not be testifying.

(Laughter)

A. It would smell like rotten eggs, and it would have a characteristic. I think everybody has had a whiff

of hydrogen sulfide. It's pretty common, and it's produced anyplace where there's decomposition going on in the absence of oxygen.

Q. Certainly that's true of everyone who's ever been to Hobbs, right?

A. It would be hard not to go through Hobbs and get a whiff of hydrogen sulfide.

Q. This is just curiosity, it doesn't really have anything to do with the presentation, but is the reason why hydrogen sulfide smells like rotten eggs because rotten eggs, in fact, do emit hydrogen sulfide?

A. Absolutely, rotten meaning decomposing. And many of the proteins that we take in have sulfur in them.

As you probably have guessed, there's a lot of sulfur in bean protein, and when you decompose that you can smell that decomposition product, which is hydrogen sulfide, which is also a skunk-related kind of odor as well.

Q. Okay, but what happens to that ready detection by the sense of smell as the concentration increases?

A. As the concentration increases to, say, 100 parts per million, it's actually toxic enough to deaden your sense of smell. And so as the concentration increases above 100 you can no longer detect it reliably by using your nose.

Q. Okay, we have some standards in this Rule based on parts per million, so I'm going to ask you about the effects that would be experienced in those concentrations, according to the available scientific information.

The first one is 50 parts per million, which is going to appear in the Rule in terms of the sustained concentration at the property line of a facility, triggers some regulations. What is the hazards to human health at 50 parts per million concentration?

A. Well, one of the difficulties in talking about effects is that 50 parts per million for one minute is different than 50 parts per million per hour. So one of the things that we'll struggle with here is, what's the time factor here?

Fifty parts per million for just a few minutes is going to give you a severe headache -- I mean, we're talking hammers-to-the-temple kind of headache -- and you're going to have a little trouble breathing, and you're not going to be thinking as good as you normally think, and your decision-making processes are going to be focused on getting away from the pain.

And it's a limit that in the industrial setting, if you hit 50, that's it for the day. You go home, everything's over with.

Q. Okay. The next standard that appears in one of

the regulations is 100 parts per million, which triggers certain regulatory consequences if it can be expected to reach what we're going to define as a public area at 100 parts per million. Now, what are the effects at 100-parts-per-million concentration?

A. Well, at 100 parts per million, again, for just a few minutes, you're starting to have difficulty breathing, it's going to feel like somebody's sitting on your chest when you try to inhale, and it's not pleasant.

In the regulatory setting, 100 parts per million is also the time that you start evacuating in the workplace, as far as those standards go --

Q. Now, would this be according to the Occupational Safety and Health Administration, better known as OSHA?

A. That's correct.

Q. Okay. Now, the next standard that we have in this regulation is the point at which we propose to require the closing of public roads if we expect this concentration to reach them, and that's 500 parts per million. Could you explain to us what the effects are at 500 parts per million?

A. Historically, 500 parts per million has been known as something called the knockdown level. It's when you expect to -- If you get a couple breaths of it, you're expected to pass out.

Q. Now, would you look at Number 3 in the exhibit stack? Is Exhibit Number 3 a chart which shows the probable effects at designated concentrations shown in the left-hand column and for designated time periods shown on the headings at the top --

A. Yes, it is.

Q. -- of hydrogen sulfide gas?

A. Yes, it is.

Q. Okay. Now, Mr. Bayliss, the testimony, as I remarked earlier, is that you were the peer-review officer for this hydrogen-sulfide project. Have you reviewed the mathematical models and scientific data that are incorporated into the Rule and the justification for the Rule that will be presented by Mr. Price?

A. Yes.

Q. And are you prepared to tell the Commission that those mathematical models and scientific data are in accordance with generally accepted scientific principles?

A. That is true.

Q. And those are accepted in the community of scientists who study this matter as being reliable guides for regulatory activity?

A. Yes.

Q. Mr. Bayliss, was Exhibit 3 prepared by you or under your direction, or taken from materials available to

you that have scientific integrity?

A. Yes, this Exhibit Number 3 was prepared by me for a training class which I gave to OCD in Hobbs and Aztec, and it's also part of a course from the Santa Fe Community Center on the hazardous site work operations, and it is taken from the National Safety Council, and I found it in the Division of Oil and Gas for the State of California manual on operating in H_2S environments.

And what this tries to do is give a sense of time and dose for effects. It's actually the product of the two. You have to look at the duration of the exposure and the concentration, and at different combinations of these you're expected to have different results, different impacts.

You must also recognize that this is a ballpark kind of document, because some people are more susceptible to concentrations of H_2S than other people are.

Q. And of course when they do an autopsy on someone they don't necessarily know exactly what concentration they were exposed to or exactly how many minutes, right?

A. That's right. Of course, it's not proper or legal to conduct experiments like this on humans, so you either have to get these results from accidents, in which you don't have very good data, or you have to get this kind of information from poisoning rats and then trying to

figure out some way to correlate the effects from, you know, the different species and the different sizes and things like that.

Q. And with the exception, possibly, of some individuals, we can't be sure that human beings are exactly like rats, correct?

A. Yeah, I'll -- that's true.

(Laughter)

MR. BROOKS: Very good. Madam Chairman, we will offer Exhibit 3 in evidence.

CHAIRMAN WROTENBERY: Exhibit 3 is entered into the record.

Have you already -- You haven't offered --

MR. BROOKS: I have not offered --

CHAIRMAN WROTENBERY: -- 1 and 2?

MR. BROOKS: -- Exhibits 1 and 2. I plan to offer those through Mr. Price.

I pass the witness.

CHAIRMAN WROTENBERY: Any questions?

Thank you, Mr. Bayliss. If you wouldn't mind holding on, we may have some more questions after we finish.

THE WITNESS: No problem.

CHAIRMAN WROTENBERY: Thank you.

MR. BROOKS: Call Wayne Price.

WAYNE PRICE,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BROOKS:

Q. Good morning, Mr. Price.

A. Good morning.

Q. Would you state your name for the record, please?

A. My name is Wayne Price.

Q. And where do you reside?

A. In Santa Fe, New Mexico.

Q. By whom are you employed?

A. The Oil Conservation Division, Environmental Bureau.

Q. And in what capacity?

A. I'm an environmental engineer.

Q. And what are your duties as an environmental engineer for the Oil Conservation Division?

A. I'm primarily a discharge-plan permit writer and I also review groundwater cleanup plans and, of course, work on the rules and regs.

Q. Have you ever testified before the Oil Conservation Commission before?

A. No, I haven't.

Q. Would you tell us your training and professional

qualifications?

A. Sure. I've had approximately 20, 25 years' experience in various capacities in the oil industry, primarily as an environmental engineer. And my education is, I'm an engineer, graduated from New Mexico State as an electrical engineer in Las Cruces, New Mexico, which is about 90 miles south of Socorro, and of course we consider that the cradle of engineering in New Mexico.

Q. But when it grew up it moved to Socorro?

(Laughter)

Q. You don't have to answer that question.

And would you describe your work experience for us?

A. Yes, when I graduated from New Mexico State I went to Ohio, went to work for the Goodyear Tire and Rubber Company. I was primarily doing design controls, and that's where I first encountered my environmental experience, is that -- That's in the Seventies. A number of years ago the Cuyahoga River caught on fire, and so all the companies that were along that river at that time began to put environmental controls in place. And so that was my first experience in the environmental field.

After that I was superintendent at a power plant, and then I spent about 20 years in the oilfield/chemical-industry business.

Q. How long have you been employed by the Oil Conservation Division?

A. Approximately eight years.

Q. And were you in the Hobbs Office at one time?

A. Yes, I was.

Q. Did you have a lot of experience with hydrogen sulfide down there?

A. Yes, I did. And of course, I'm from Hobbs, and being from Hobbs, you know, you learn to respect and learn how to work and live around hydrogen sulfide.

Q. Have you been intimately involved in the preparation of the proposed hydrogen-sulfide Rule?

A. Yes, I have.

Q. And have you made a study of the scientific and technical aspects of hydrogen-sulfide regulation for the purpose of formulating the standards set forth in this Rule?

A. Yes, I have.

MR. BROOKS: We will tender Mr. Price as an expert in environmental engineering generally, and specifically in the regulation of hydrogen-sulfide gas.

CHAIRMAN WROTENBERY: We find him so qualified.

Q. (By Mr. Brooks) Very good. Would you then go to page number 4 of the slide presentation which is Exhibit Number 2 in this proceeding?

A. I would like to take just one moment and indicate that on this particular slide I made a mistake Bob Manthei.

Q. Okay, well, I'm sure Mr. Foppiano will be grateful to you for pointing that out.

MR. FOPPIANO: Thark you.

(Laughter)

Q. (By Mr. Brooks) Okay, there is an old expression, I believe: If it ain't broke, don't fix it. Right?

A. That is correct.

Q. Now, when you started analyzing the current regulation of hydrogen sulfide as incorporated in OCD Rule 118, did you conclude or not that it was broke?

A. It was inadequate.

Q. Very good. Would you tell us why it was inadequate?

A. Okay, sure. And I'd like for you to take a look at the slide up here, and I'll just read off of it. I do better that way.

But basically, the current H_2S Rule 118 has a number of inadequacies. Foremost, it's an advisory rule, rather than a requirement.

And then, there were certain exemptions that were in the current Rule. One of the exemptions is that if you had -- It basically exempted certain tanks with H_2S

concentrations up to 1000 parts per million.

The work group decided that was too high, because the industry standards have been lowered in that are for protection of workers, and even though this is not a worker protection rule, if your workers aren't protected, then you can conclude that the public may not be protected also, because the workers are the ones that are out there that are controlling the situation.

So anyway, so the new proposed Rule has a limit of 3000 parts per million on it, so there will be different requirements.

The biggest fallacy or inadequacy of the current Rule 118 is, it exempts certain facilities with H_2S concentrations less than 500 parts per million, whereas the proposed Rule will be 100 parts per million.

And then it exempts -- the current Rule exempted all facilities that had H_2S volume fractions of gas stream that equate to less than 10 MCF per day. In this particular case the little "m" stands for 1000. And so in this particular case, no safety devices or procedures were required, no signs, no fencing, no contingency plans, et cetera.

So that is the largest inadequacy or fallacy of the current Rule.

Q. Okay. Now, I'm going to stop you a minute and ask

you some more details, because these are the three areas that are specifically regulated, are they not, in the new Rule? They're the requirement of safety devices and procedures, the signage requirements, signage and fencing requirements, and the contingency plan to be activated in the event of a release?

A. Yes, sir.

Q. The new Rule addresses each of those three areas, right?

A. That is correct.

Q. Now, the current Rule does not have any safety device and procedure requirements of its own, correct?

A. It has --

Q. Only by reference to certain industry standards?

A. Only by reference to certain industry standards, and also by advisory that if you have more than 10 MCF per day, that you had to have certain safety devices. But it didn't spell out what type of devices.

Q. And that reference to industry standards states that operators, quote, should follow these industry-standard procedures, correct?

A. That is correct.

Q. So it's very ambiguous as to whether or not there's anything there that the OCD can actually enforce if they decide that they don't want to do what they should,

correct?

A. Well, I'm not an attorney, but I have to assume that that is correct.

Q. Okay. Now, if you have a tank battery that contains under 1000 parts per million of hydrogen sulfide gas within the gas mixture above the fluid in the tank battery, under present rules you don't even have to have a warning sign on that tank battery; is that correct?

A. That is correct.

Q. Now, if you look at Mr. Bayliss's chart, Exhibit Number 3, you will see that exposure to 500 to 600 parts per million, which is half of 1000, for two minutes could cause unconsciousness, correct?

A. That's correct.

Q. And if you're being exposed to a release and you become unconscious, it's very likely you will be exposed to considerably more, correct? Because you don't have a way to get out of the area once you're unconscious.

A. That's possibly correct. There are certain situations, I guess, depending upon --

Q. Well, I understand it wouldn't inevitably happen --

A. Well, yeah, but in essence what you're saying is correct.

Q. So that a concentration of 1000 parts per million

-- of far less than 1000 parts per million can be described as extremely dangerous?

A. That is correct, yes.

Q. Now --

COMMISSIONER LEE: Can I ask a question?

MR. BROOKS: You may.

COMMISSIONER LEE: That depends on the volume of the container source, right?

THE WITNESS: No, not in this particular case, we're talking about --

COMMISSIONER LEE: Suppose you have one cubic foot of 1000 p.p.m.

THE WITNESS: Right, in this particular case we're talking about the headspace, Commissioner Lee, the headspace above the liquid level in a tank. And the primary concern here is, when hatches are opened, then you immediately get almost what the headspace is into the face of a worker at that point in time.

COMMISSIONER LEE: How much the headspace?

THE WITNESS: Well, it depends on the liquid level. I will say that from engineering terms, there's about a 50-to-1 turn-up, I guess you might say.

For example, if you have one part per million -- or if you have 100 parts per million in the liquid in a tank, then the headspace will have 50 times that, which

will be 5000 parts per million.

COMMISSIONER LEE: So that's the average value?

THE WITNESS: We didn't actually do any sort of statistical analysis on what the head spaces are in the various tanks in the oilfield.

COMMISSIONER LEE: Are you going to talk about how you calculate the -- determine the radius?

THE WITNESS: Yes, we will.

CHAIRMAN WROTENBERY: May I just ask a question as well --

MR. BROOKS: Sure.

CHAIRMAN WROTENBERY: -- because you mentioned the exposure of a worker. Now, this particular Rule is designed to protect the public, as Mr. Anderson testified. To what extent does it apply to workers?

THE WITNESS: Okay, to the public or to workers?

CHAIRMAN WROTENBERY: To workers, because you mentioned in your testimony --

THE WITNESS: Right.

CHAIRMAN WROTENBERY: -- just a minute ago the effect on a worker.

THE WITNESS: Okay. Thank you, Commissioner Wrotenbery.

The intent of the Rule and the work group, there's kind of a fine line between the OSHA standards and

protection of the public. One of the things that the work group considered was that if -- You must protect the workers. Because if you don't protect the workers, they're the people out there on the front line that's going to control the situation.

And so the work group decided that the 1000 parts per million is just too high a level for their people not to be protected, and they wanted to go to the 300 parts per million, which gives a lot more protection to the workers. And in certain situations where we do have tank batteries located in very close proximity to houses, then we felt that we needed to tighten up those controls.

Even though tank batteries do not expel large volumes in flow of gases, they could present a hazard to houses in close proximity. And so we felt it was important that we have warning signs, chains and so forth.

And later on in the slide presentation we'll talk about what procedures that we want to implement for those.

MR. BROOKS: Now, that's an important point, I believe -- Are you concluded?

CHAIRMAN WROTENBERY: Yes.

Q. (By Mr. Brooks) The 1000-parts-per-million threshold that's being lowered to 300-parts-per-million threshold, this is a threshold at which the owners of tanks or similar vessels that contain hydrogen-sulfide gas are

required to put up warning signs and have fencing around those facilities; is that correct?

A. That is correct.

Q. And so far as the activation of an emergency plan, that's going to be another that we're going to talk about in a minute, correct?

A. That's another issue.

Q. Okay. Now, the same issue about signage and fencing with regard to facilities is covered by the 500-parts-per-million standard under the present Rule, correct?

A. That's correct.

Q. Now, as I asked you about a minute ago, at 500 parts per million could rapidly cause unconsciousness, according to Exhibit 3, correct?

A. That's correct.

Q. Now, as you just noted, if the workers become disabled at a facility, is that likely to be productive of -- if there's a release occurring at that facility, is that likely to be productive of more problems --

A. Yes.

Q. -- for other people?

A. Yes.

Q. Because the workers, if they're disabled, they won't be able to sound the alarm, they won't be able to control the facility to protect the public if there's a

continuing source of hydrogen sulfide, correct?

A. That is correct.

Q. Okay. And the new Rule would lower that threshold for signage and special equipment -- or signage and fencing down to 100 parts per million, correct?

A. Yes, it would.

Q. Now -- Then let us go on to this 10-MCF-per-day rule. Now, as I understand it -- and correct me if I'm wrong -- under the present Rule there is no regulation, safety regulation, applicable to a facility that has less than 10 MCF in their gas stream of hydrogen sulfide, even though -- regardless of the concentration; is that correct?

A. That is correct.

Q. In other words, if they had 9.9 MCF of pure hydrogen sulfide, a million parts per million, they would still not be subject to regulation under this existing scheme?

A. That is correct.

Q. Very good. Now, have you prepared a couple of slides that illustrate the problem with that scenario?

A. Yes, I have.

Q. Okay, let's go ahead to those. Would you explain to the honorable Commissioners what you've calculated here on slide number 2?

A. Okay. Under the current Rule -- we're talking

about the 10-MCF-per-day exemption, and I'd like for you to focus on the example. If, for example, you have a gas well that has the ability to produce 1000 MCF per day, now, I want you to realize, if you convert that -- that "m" is 1000, the small "m" is 1000 -- that is 1 million cubic feet per day of release. That is a lot of gas, at 10,000 parts per million. Now, this is a hypothetical.

At 10,000 parts per million, which Mr. Bayliss had just indicated to you, at 10,000 parts per million of H_2S, we're not sure that you could even take a breath before you're dead.

And so under the current Rule, if you have 1000 MCF or a million cubic feet per day at 10,000 parts per million, which equates to 1 percent of H_2S, then the pure H_2S that's being released is 10 MCF per day of pure H_2S. And so --

COMMISSIONER LEE: Can I ask you a question?

THE WITNESS: Yes.

COMMISSIONER LEE: You're assuming there's no surface equipment to knock down the H_2S.

THE WITNESS: I'm sorry, Commissioner Lee, I didn't --

COMMISSIONER LEE: You're assuming there's no surface equipment to knock down the H_2S? H_2S, usually you have a dehy unit to take away the H_2S right there?

THE WITNESS: Well, this is the worst-case assumption where, say for example, you have a wellhead and one of the valves has been knocked off of the wellhead or you lose control of the well. So this would be a worst-case scenario.

COMMISSIONER LEE: This is the worst --

THE WITNESS: Right.

COMMISSIONER LEE: What is the 1000 MCF? Is that the average value of the gas wells in the south?

THE WITNESS: No, that is not --

COMMISSIONER LEE: I think it's a little bit too high.

THE WITNESS: Yes, that is a large well. But what I'm trying to point out here is that the capability -- In other words, you could have a very large producing gas well with a very high concentration of H_2S, and it would be exempted from the Rule.

COMMISSIONER LEE: Even the company is trying to do something with the H_2S.

THE WITNESS: Yes.

COMMISSIONER LEE: They don't have to report it to you?

THE WITNESS: That's correct.

So anyway, if you will put this into what we call the Pasquill-Gifford equation -- which is the modeling

equation, and we will discuss that in a little bit -- you will get a radius of exposure. At 200 feet you would have 500 parts per million. At 450 feet away from the release point you would have 100 parts per million.

Now, the next slide will reflect the impact of this 10-MCF-per-day release for the example given above, and we've got some houses, businesses, public meeting places and so forth.

Q. (By Mr. Brooks) Before you go into that, we know we're going to go into more detail later, but let me ask you briefly about radius of exposure. I know Dr. Lee understands it, doubtless much better than I do. But to be sure everybody present understands it at least as well as I do --

A. Right.

Q. -- a radius of exposure is a concept based on a mathematical model, correct?

A. That is correct.

Q. Now, the principle involved is that if you have a gas constituent being vented into the atmosphere as the result of a release, if other things are equal, no wind and other factors don't affect it, that gas is going to move out in a circular pattern from the point of release, correct?

A. Well, not always necessarily in a circular

pattern. It would be -- depending on the wind direction, it can actually be -- from a point source it would actually dilute itself, and as you go out it keeps getting bigger and bigger and bigger, but the concentration of H_2S starts getting less.

And the reason we use a circle is that at any one point in time you don't know which way the wind is going to be blowing, so you really don't know which way the H_2S is going to go.

Now, under extremely ideal conditions what you just said may be correct.

Q. Well, now, that's the trouble when you ask a scientist a question; they want to put in all the qualifications. So I'm trying to get you to the simplest possible case for the purpose of explaining the concept.

As the H_2S moves out from the point of release, it disperses in the atmosphere and the concentration progressively becomes less as you move farther from the source, correct?

A. That is correct.

Q. Or at least that's, under most conditions, the way we would assume it would happen?

A. That is correct.

Q. Now, this mathematical model is designed, is it not, to define an area, a geographical area, within which

there can be said to be a probability of exposure at a certain level of -- a certain concentration of H_2S, correct?

A. That's correct.

Q. So by --

COMMISSIONER LEE: I have a question.

MR. BROOKS: Yes.

COMMISSIONER LEE: You're setting the 500 p.p.m. at 200 feet. That means you're using the steady-state approach?

THE WITNESS: Yes, this is --

COMMISSIONER LEE: And how can you --

THE WITNESS: -- it is a steady-state equation.

COMMISSIONER LEE: So how can you have a steady state after you -- this equation?

THE WITNESS: The -- And actually, this might be a question for Mr. Bayliss. He's probably the expert in the Pasquill-Gifford equation. But I can tell you that the --

COMMISSIONER LEE: Okay, right now what I'm concerned is, in the layman's terms, you're talking about -- this is steady-state, you're talking about 500 p.p.m., it's happening in 24 hours. That 500 p.p.m. may be happening in two minutes.

THE WITNESS: That's correct, the --

COMMISSIONER LEE: It depends on the source of the H_2S?

THE WITNESS: That's correct, Commissioner Lee. There are different types of models. This particular model that we used is a steady-state model, because we feel like we get worst-case numbers --

COMMISSIONER LEE: Let me interrupt you again, sorry about that. But a steady-state, in the real sense you are assuming your leak of this H_2S is continuous?

THE WITNESS: That is correct.

COMMISSIONER LEE: Okay, so you probably overstated the consequences of this. Of course, if there's seven people at a certain time and you have some accident there, in those two minutes the probability would tell you how much they can be, but in those two minutes' time period they would be dead?

THE WITNESS: That's --

COMMISSIONER LEE: They're not going to expose to H_2S for an hour?

THE WITNESS: No, that's correct. That's correct.

COMMISSIONER LEE: All right.

THE WITNESS: We looked at the puff model. The puff model is where you have an H_2S release -- actually, it puffs out, the well is shut in either automatically or

someone goes out and shuts it in, or it shuts itself in from a downhole completion safety valve or something.

And so -- We've looked at the puff model. The puff model involves very complex differential equations, rigorous modeling and so forth.

And so we felt that we wanted to go with the steady-state model. I will say that other agencies, other states, use the steady-state model. BLM's onshore uses it, the State of Texas uses it, California uses it. Most states do use it.

Now, that's notwithstanding the fact -- and we'll see this a little bit later on, that -- when we get into definitions -- that the OCD certainly would allow other viable models to be used.

COMMISSIONER LEE: I have no question, I just -- I've never seen this study before, but I think this steady-state model may be over-exaggerating the consequences.

THE WITNESS: Yeah, our emphasis here was to protect the public.

COMMISSIONER LEE: Yeah.

Q. (By Mr. Brooks) Very good. Mr. Price, what we're doing here with this model, again, we are attempting to predict a geographical area in which there is a reasonable probability of a particular level of exposure at a particular level of concentration?

A. That is correct.

Q. And the radius -- When we refer to the 500-parts-per-million radius of exposure, we are talking about a circle as defined by this mathematical model in which the model predicts that there's a probability of exposure to a concentration of 500 parts per million if a person is within that circle; is that correct?

A. That is correct.

Q. That is assuming a release at the center of that circle?

A. Yes.

Q. And did you, based on the assumptions of a 10-MCF-per-day hydrogen-sulfide constituent in a 1000-MCF-per-day gas stream, prepare a diagram of the possible consequences, based on this model, of the radius of exposure?

A. Yes, I did.

Q. And would you put that on the screen, please? Now, would you describe to the Commissioners what is shown in that depiction?

A. Okay, this is an actual map of Hobbs, New Mexico. It's located almost in the center of Hobbs. It's -- In the center, if you'll look at the slide, in the center of the red circle or the inner circle, there's a circle there, and that's denoting a well. There is an actual well located in

that area.

So we picked a location which was in town, and the little squares indicate houses. There's -- The one that's marked with a "P" if you can see it, is a police substation. There's a "B" there for a business, and there's a "C" there for a church.

And so what we've done is, we've taken the radius of exposures for 100 and 500 parts per million that a 10-MCF pure H_2S release would impact, and we actually drew it on this map.

And so the areas inside of the circle below, basically, under -- the area inside of the outer circle would be exempt from any sort of public safety contingency plans or other safety controls under our current Rule 118.

So I think you can see the fallacy and the inadequacy of our current Rule 118.

Q. Now, this is a worst-case scenario in the sense that you have selected a well that is located in a particularly concentrated area of surface development, correct?

A. That is correct.

Q. However, is it or is it not, in your opinion, a realistic scenario in the sense that there might well be such installations within the State of New Mexico?

A. Well, I think it's a very realistic scenario. I

had one of the engineers, Will Jones, take a look at all the number of gas wells that we have in that area.

Granted, the example that we've given you is a high number for a gas well, but it certainly is not a high number for a large gas pipeline.

Q. And are there a number of gas pipelines that traverse through well-developed surface in the State of New Mexico?

A. Yes.

COMMISSIONER LEE: If you have a pipeline, are you going to carry the H_2S?

THE WITNESS: Yes, there are a number of high-volume pipelines that carry sour gas to gas plants.

COMMISSIONER LEE: I mean, the transcontinental pipeline, there's no H_2S?

THE WITNESS: No, the mainstream pipelines --

COMMISSIONER LEE: You're talking about a very short distance?

THE WITNESS: Well, actually we have a number of production flow lines and intermediate gathering lines, and then we also have rather large lines that -- I'm talking about 16-, 20-inch lines that carry large amounts of gas, sour gas, that's going to the gas plant.

COMMISSIONER LEE: But the main concern of this one is your -- the condensate tank?

THE WITNESS: Well, it's a well in this particular --

COMMISSIONER LEE: So it's --

THE WITNESS: It would be a gas-producing well.

COMMISSIONER LEE: Gas-producing well. You're worried about the tank?

THE WITNESS: No, no, no, no. What we're worried about here, this would be a gas well that's located in a very heavily populated area, and for some reason they lose control of that well.

COMMISSIONER LEE: They lose control So the worst scenario?

THE WITNESS: Yes.

COMMISSIONER LEE: But even without the accident, you're still going to smell it?

THE WITNESS: Oh, it -- well, depending upon if you have -- if it's leaking or not. Now, that's a --

COMMISSIONER LEE: Well, there's no gas line, no leak.

THE WITNESS: I don't know if I can argue with that or not. Hopefully, the gas line should not be leaking.

COMMISSIONER LEE: Well, there's no gas line, there's no -- Gas lines always leak; is that what I'm learning, New Mexico State?

(Laughter)

THE WITNESS: No, Commissioner Lee, we learned that if a gas line leaks it needs to be repaired.

COMMISSIONER LEE: Well, a certain amount will go into the atmosphere, you cannot prevent it, no matter what?

THE WITNESS: I would have to agree somewhat with that statement.

COMMISSIONER BAILEY: Before we leave this example, you very carefully said that any release would not be covered under the current Rule 118. What about other rules and regulations that may apply from the municipal or Environmental Bureau?

THE WITNESS: Commissioner -- Thank you, Commissioner Bailey. I'm not real familiar with the air quality standards of New Mexico. I do know that for certain point-source emissions that are permitted that they certainly do have some very strict air quality standards.

COMMISSIONER BAILEY: So others may apply, even though Rule 118 is deficient?

THE WITNESS: That is correct.

Q. (By Mr. Brooks) Very good. Mr. Price, in view of these -- Well, first of all, how is this particular problem, the deficiencies of the 10-MCF-per-day threshold, how is that addressed in the new Rule?

A. Well, basically the new Rule just does away with

that particular exemption, and we strictly go to a radius of exposure, which will be explained here in a little bit.

Q. Which is computed, based on the concentration of H_2S in the gas stream, not on the absolute amount of H_2S.

A. That is correct, it's a combination of the two.

Q. Combination of what two?

A. Of gas flow and the concentration of the H_2S in the gas.

Q. Right. Well, and under the new regulation it's not going to make any difference how many MCF of H_2S is present, but rather what percentage of H_2S in the stream is present; is that not correct?

A. Under the new regulation, what will be taken into account is the amount of gas flow that will have the capability of being released in an uncontrolled situation, and the concentration of the H_2S or the hydrogen sulfide that's in that gas.

Q. Okay. So whereas under the present Rule -- Well, I guess that adequately explains it. Let us then --

A. Well, let me expand on that a little bit.

Q. Okay, go ahead.

A. Under the proposed Rule, we're basically just doing away with the pure H_2S or the volume fraction --

Q. Right.

A. -- of H_2S, we're just doing away with that

provision.

Q. Yeah. Well, we're going to come back to exactly what it is that triggers the requirement to do an emergency plan when we go through section by section in the new Rule, right?

A. Correct.

Q. Okay. With these deficiencies in the present Rule in mind, let us look at the new Rule. And I will ask you to look at Exhibit 1, which is the proposed Rule, and then we can go on to the next slide, and I'm going to take you through this new Rule section by section and ask you to explain each of the provisions which is being recommended.

Now, the first section is Section A, which is going to be Subsection A of Section 52 of the Rules, and can you tell us what Subsection A provides?

A. Subsection A just gives a brief identification of the hazards and characteristics of hydrogen sulfide. That's what basically Randy Bayliss had discussed with you.

Q. Subsection B, tell us what Subsection B provides.

A. Well, Subsection B provides -- kind of spells out how the public safety in areas where potentially hazardous volumes of H_2S may exist and also defines who is regulated by the Rule.

Q. Now, in that latter connection, is it the intent to make this Rule coextensive with the regulatory

jurisdiction of the OCD?

A. Yes, it is.

Q. So that all facilities that are subject to OCD regulations will be subject to this regulation?

A. That is correct.

Q. And that would include wells, it would also include downstream facilities and pipelines that are subject to OCD regulation?

A. That is correct.

Q. Then let us go to Subsection 3, which is definitions, and there are quite a lot of definitions. Obviously the definitions are only relevant in terms of the particular substantive provisions to which they relate, so I won't attempt to have you explain every definition in here, but there are two definitions that are at the center or the key of the -- the core of the regulatory requirements, because these trigger the rest of the regulatory requirements, so I'm going to go through each of these.

We have talked about radius of exposure rather extensively, and you will -- you have a slide that shows the equation. We'll get to that in a minute. But from radius of exposure you derive a concept called potentially hazardous volume, which is a defined term.

Could you explain to us potentially hazardous

volume?

A. Yes, just by definition, potentially hazardous volume has been defined in this rule, and as the slide shows, 100 parts per million radius of exposure -- anywhere that 100 parts per million of hydrogen sulfide includes a public area -- now, we have a definition for public area also.

Q. And basically -- I'll interrupt you on that. Basically, a public area is a dwelling, business, place where people concentrate, such as a church or school-bus stop, right?

A. That is correct.

Q. Okay, then go ahead and continue telling us about radius of exposure.

A. And then the work group worked on what we call the tier approach, and then the next tier would be where the 500-parts-per-million radius of exposure would include a public road. So any time that you have a calculated radius of exposure of 500 parts per million and it includes a public road, then that would also be defined as a PHV or a potentially hazardous volume.

And then the other tier is where you have a 100 parts-per-million radius of exposure, which would be in excess of 3000 feet from the release point, and that would also be considered a PHV or potentially hazardous volume.

Q. Okay. Now, the potentially hazardous volume is the -- Well, what you do is, you take the gas stream and you use the gas flow and the concentration factors, and using the equation we're going to talk about in a minute, you come up with a radius?

A. That is correct.

Q. Okay. And then you can draw a map of that radius for each concentration that you're involved with?

A. That is correct.

Q. And within that map you look and see what is in that geographical area defined by that radius?

A. Correct.

Q. So that if there is -- you're going to draw concentric circles for each level of exposure, 500 parts per million, 100 parts per million and so forth, correct?

A. Yes.

Q. And because it gets less and less concentrated as you go out from the center under the mathematical model, then the larger circle would be that for the lower exposure?

A. Correct.

Q. So that you will, just as -- Well, let's go back to your slide number 3, just by way of illustration. If your dispersal model showed a 500-parts-per-million radius of exposure in the red circle and a 100-parts-per-million

in the yellow circle, then you could look at the map, see, well, there are houses within that 100-parts-per-million yellow circle, houses or public areas, therefore you've got a potentially hazardous volume if it generates that particular radius of exposure?

A. That is correct.

Q. And similarly, in that map there are also houses in the 500-parts-per-million. But if there weren't, you can see from the map that there are public roads within that area, so that generates the potentially hazardous volume, correct?

A. That is correct.

Q. Now, regardless of what's in the area, if the 100-parts-per-million worked out on the equation, if the 100-parts-per-million radius of exposure exceeds 3000 feet, you have a potentially hazardous volume; is that correct?

A. Yes, that's correct.

Q. Okay, let us then go to slide 6 and explain how this radius of exposure is calculated.

A. Okay. The radius of exposure is an imaginary circle constructed around a point of escape. The radius which is calculated using the Pasquill-Gifford equation, which is derived from the well-known Gaussian distribution plume model, and it's assuming a continuous source.

And example of one of the equations is given, and

for example, if you want to know the number of feet for a 100-part-per-million radius of exposure, you can use this equation. And this is a very user-friendly equation, because it doesn't require any sort of reiterations or modeling. It's basically just a conventional equation with an exponent. It can be put into a spreadsheet very easily, and you can chunk numbers out just really quick.

But just for example, to get the number of feet, you have a coefficient times the hydrogen-sulfide concentration in the gas, times the gas flow, and there's an exponential component there, involved in that particular equation.

COMMISSIONER LEE: What's the dispersion coefficient boundary? Do we need to give that?

THE WITNESS: The 1.589?

COMMISSIONER LEE: What does that stand for?

THE WITNESS: The 1.589, the coefficient takes into effect basically the environmental weather factors, physical weather factors and so forth, and that's what that coefficient --

COMMISSIONER LEE: You're not using the diffusion, right? You use dispersion?

THE WITNESS: We're using dispersion, that is correct.

Q. (By Mr. Brooks) Mr. Price, in your professional

opinion, is the Pasquill-Gifford equation and the model on which it is based, is that a scientifically reasonably reliable method of predicting the dispersion of hydrogen-sulfide gas?

A. Yes, it is.

Q. However, if an operator wants to calculate radius of exposure by some other method -- Well, first of all, are there other scientifically recognized methods of modeling hydrogen-sulfide concentrations?

A. Yes, there are.

Q. And if an operator wants to use another method and he can satisfy the Division that another method is at least as good in terms of predicting the behavior of the gas, is that allowed under the regulation?

A. Yes, it is.

Q. Okay, let's go on to slide 7.

A. Pardon me, a minute, I need to take a drink of water.

CHAIRMAN WROTENBERY: We'll just take a five-minute break, then.

(Thereupon, a recess was taken at 10:19.m.)

(The following proceedings had at 10:30 a.m.)

CHAIRMAN WROTENBERY: Okay, we're ready to go back on the record.

MR. BROOKS: Very good.

Q. (By Mr. Brooks) Now, there's quite a lot of other definitions here, right?

A. Yes, there is.

Q. But we will talk about them only as they pertain to the particular regulations?

A. Yes.

Q. We now get into Subsection E, which is perhaps the prime --

A. Subsection D.

Q. Subsection D, okay. We're looking at slide number 7 now.

What does Subsection D deal with?

A. Subsection D is the determination of hydrogen-sulfide risk.

Q. Now, making this determination determines, in turn, whether the additional regulations will apply and how they will apply?

A. That is correct.

Q. And Subsection D requires the operators to make these determinations?

A. Yes.

Q. Okay, would you explain the procedure whereby the operator must determine whether they will be required to make this determination?

A. Okay, I'll just go through the bullet points on

the slide real quick.

The Rule requires qualified testing of gas streams or systems, allows operators to submit previous data if not over one year old, and all existing wells would be exempt from testing if representative data is available. Facilities greater than 100 parts per million, that's the trigger level. If you have more than 100 parts per million in your system, then you must calculate a radius of exposure.

Q. Now, that is as determined by this testing that is required or by existing data that may be used in lieu of testing?

A. That is correct.

Q. Go ahead.

A. And then if the ROE meets a definition of PHV, which we just discussed, then the test data and ROE calculations must be submitted electronically within 180 days.

Q. And that's submitted to the OCD?

A. Submitted to the OCD. And then there's a recalculation provision required.

Q. And when recalculation -- under what circumstances is recalculation required?

A. Okay, I would ask you to go to D -- this is --

Q. D.4, I believe.

A. D.4, yeah, D.4. Under D.4 --

Q. On page 2?

A. Yes, on page 2. When the work group -- we had basically -- we had derived a number that we thought would be an efficient -- and not to burden the industry on recalculation, because we don't want people to recalculate every time there's just a very, very small change in their systems. And so we came up with a value of 25 percent, but it was inadvertently put in the Rule as 25 percent of hydrogen-sulfide concentration, and in essence it should have been the actual volume fraction of hydrogen sulfide.

So anytime you have greater than 25 percent of the actual volume fraction of hydrogen sulfide, then you have to recalculate your ROEs and resubmit those and change your contingency plans, which we'll talk about a little bit later on.

Q. And this is a 25-percent change, correct?

A. This is a 25-percent change.

Q. Not to be confused with a 25-percent concentration of hydrogen sulfide?

A. No, that is correct.

Q. Okay. Now, if these facilities conduct this testing as required or refer to their data as required and they determine that their gas stream has a concentration of less than 100 parts per million hydrogen sulfide, then what

happens?

A. Well, if an operator of a facility has less than 100 parts per million of hydrogen sulfide, then they're totally exempt from this Rule.

Q. And they don't have to worry about figuring out their radius of exposure?

A. They don't have to comply with this Rule at all.

Q. Okay. But if they have more than 100 parts per million and they calculate a radius of exposure and draw these maps and -- then they're going to figure out -- and they figure out that they have a potentially hazardous volume under the definition, then they have to report that to the OCD, correct?

A. That is correct.

Q. Within 180 days?

A. Yes.

CHAIRMAN WROTENBERY: On that particular point, let me ask under D.4, the recalculation procedure --

THE WITNESS: Yes.

CHAIRMAN WROTENBERY: -- it says that the results must be submitted to the Division, and there's no qualification there about it being a potentially hazardous volume. Should that be revised --

MR. BROOKS: Where are we?

CHAIRMAN WROTENBERY: In D.4.

MR. BROOKS: D.4.

THE WITNESS: If they have 100 parts per million, then they just have to submit that to us, because there is a possibility that they could have 100 parts per million, and some parts of this Rule would apply to them, but they may not have to submit a contingency plan, which we'll talk about --

CHAIRMAN WROTENBERY: Okay, maybe I'm not understanding, because I see a difference between Number 3 and Number 4. Under Number 3, when you do the initial testing, you have to submit the results to the Division if the calculation reveals a potentially hazardous volume may be present. It does not require submission unless you have a potentially hazardous volume. So there, I think, is a difference between 3 and 4 here, the way we've got it drafted.

MR. BROOKS: In other words, your question is, if they do not have a potentially hazardous volume, and then they recalculate and they have a 25-percent increase but they still don't have a potentially hazardous volume, do they have to report to the OCD?

CHAIRMAN WROTENBERY: Right.

MR. BROOKS: And I believe your point is well taken, although I hadn't focused on it previously, that the Rule would appear to require reporting if there's a 25-

percent increase, even if they're still under the threshold now.

THE WITNESS: That's the way the Rule reads now.

CHAIRMAN WROTENBERY: Is that your intent?

THE WITNESS: I'd like to defer and I'd like to have an opportunity to think about that a little bit, because I'd like to go back through that.

I do know that there was a lot of conversations in our work group and with the Bureau on how this was worded and what we were supposed to do here, and I'm wondering if that was our intent or not. And I guess I'm not prepared to answer that at this point in time. I'd like to take a look at it.

If you'll give me a few minutes, we'll go ahead and --

CHAIRMAN WROTENBERY: When we take our next break perhaps you can confer with Mr. Anderson and Mr. Bayliss and --

THE WITNESS: Yes, okay, good.

CHAIRMAN WROTENBERY: -- enlighten us.

THE WITNESS: Yeah, we can --

COMMISSIONER BAILEY: I also have a question. Are there any criteria for determining that the sample is representative or not?

THE WITNESS: Yes, Commissioner Bailey, there is.

It's written in the Rule that the samples shall be representative.

And there's also -- We referenced ASTM in the GPA standards, and within those standards they talk about how the standards -- or how the gas samples are taken. And one of the things that they do in that procedure is make sure that they're representative.

COMMISSIONER BAILEY: Okay.

Q. (By Mr. Brooks) Now, the purpose of this calculation and reporting, is this to determine whether or not the operator is required to prepare a contingency plan?

A. I'm sorry, would you repeat that?

Q. The focus of this testing and reporting that we've been talking about, is this to determine whether or not the operator is required to prepare an H_2S contingency plan?

A. Yes.

Q. Would you go to slide 8 and explain to us about H_2S contingency plans?

A. Okay, slide is the proposed Rule for the H_2S contingency plan, Subsection E in the Rule. And there's a general section that basically talks about -- the purpose of it is to alert and protect people at risk, to control, monitor and abate the discharge.

And then there's a section in there, talks about

when a contingency plan is required. And basically, a contingency plan is required anytime a PHV or potentially hazardous volume may be present.

And then of course the contingency plan requires input from emergency response authorities and OCD.

Q. Now, have you prepared a chart, a slide that graphically demonstrates the conditions under which a contingency plan must be required and, as to each of those particular conditions, what the contingency plan must contain?

A. Yes, we have.

Q. And would you go to slide 9?

A. Okay.

Q. When we talked about radius of exposure, there are three separate conditions that may trigger a contingency plan. Of course, we've already talked about if there's less than 100 parts per million then the contingency plan is not required, correct?

A. That is correct.

Q. But if the answer to that first question -- is it greater than 100 parts per million? -- is yes, then a contingency plan of some kind will be required if there is a potentially hazardous volume, correct?

A. That is correct.

Q. Okay. So the next three questions, the next

three boxes, diamond-shaped boxes below the "Is H_2S present?", the next three diamond-shaped boxes define the three criteria that are part of the definition of potentially hazardous volume, right?

A. That is correct.

Q. And the first one is, if the radius of exposure for 100 parts per million is greater than 3000 feet, right?

A. Yes.

Q. And if that's true, you're required to have a contingency plan?

A. Yes, you're required to have a release plan, which you can find in Subsection E.4.a.

Q. But you're not required to have the other elements of a contingency plan if that is the only factor triggering a potential --

A. That was the intent, just to have just a basic plan.

Q. But whether or not -- if you do have a radius of exposure, 100-p.p.m. radius of exposure at 3000 feet, or you don't, but you have within your 500-p.p.m. radius of exposure a public road, then are you required to have a contingency plan?

A. Yes, you're required to have a contingency plan, which would include the release plan or the basic plan and a traffic plan, which is found in Subsection E.4.b.

Q. And just to be clear on it, you're required to have the release plan as a part of your contingency plan in that circumstance, even if the answer to the first box is no and you do not have a 3000-foot radius of exposure?

A. That's correct.

Q. Okay. Then let's go down to the third box on the chart -- or the fourth diamond-shaped box in the left-hand column on the chart, and you determine that there is a public area within your 100-p.p.m. radius of exposure. Then what do you have to have?

A. Well, then you have to have a public plan, which is found in Subsection E.4.c. Also you need to include a release plan and part of the traffic plan.

Q. And that is true regardless of whether or not the answers to the questions in the second and third box in the left-hand column is yes or no?

A. That's correct.

Q. You have to have all three if you have a public area within your 100-parts-per-million radius of exposure, all three elements of your contingency?

A. Yes, that would be the most comprehensive plan.

Q. Now, if you don't -- if the answer to all three of these questions, the second, third and fourth diamond-shaped boxes in the left-hand column on the chart are all no, even if the answer to the top box is yes and you have

more than 100 p.p.m. in your gas stream, then do you have to have a contingency plan?

A. You have to have a contingency plan if you have more than a -- Oh, wait a minute, I'm sorry.

Q. If you have more than 100 parts per million in your gas stream, so the answer to the first question is yes, but then you go down the list, you get no, no and no, do you have to have a contingency plan?

A. No, you do not have to.

Q. You don't have a potentially hazardous volume, correct?

A. That's correct.

Q. Okay. Now, let's go to what the various types of -- these various elements of the contingency plan consist of. So let's go to slide 10 and talk about a release plan. What do you have to have in a release plan?

A. Okay, the release plan is found in Subsection E.4.a, and within that plan you have to have an immediate action plan, you have to have a call list for emergency personnel. That would be governmental authorities like fire department, police, et cetera. You need to have plat maps showing the radius of exposures on those maps. You need to have a call list, names and telephone numbers of the company or operator facility personnel to be contacted.

Q. And just to clarify, there must be a release plan

in any contingency plan wherever there's a required --

A. That is correct, you could basically call that just a basic plan.

Q. Let's go to slide 11, and explain to us what a traffic plan is.

A. Well, a traffic plan is found in Subsection E.4.b of the Rule. It must contain all the elements of a release plan, and then the following additional elements.

And there's instruction procedures for alerting and coordinating emergency response authorities specifically for public roads, once again plats or maps showing all of the public roads that would be impacted, and a traffic plan, a written traffic plan to divert and safely remove any public member.

Q. And that just means a member of the public?

A. That's correct.

Q. Okay, then let's go to slide 12, and tell us what a public plan is.

A. Okay, a public plan, as we mentioned before on the flow chart, is a very comprehensive plan. It must contain all the elements of a release plan and the following additional elements:

Detailed plans of action to alert and protect the personnel at risk and emergency response authorities, must have the call list, must have coordination of response

pursuant to New Mexico Hazardous Materials and Emergency Response Plan, which -- i.e., State Police or DTS -- and then there are plats or maps of all the facilities, names and phone numbers of affected persons, advance briefing of the entire call list -- and that would actually be people inside of the radius of exposure; there's a mechanism in there for the operator to have briefings for the people on the call list -- and any other additional support information that may be required.

Q. And once you get this contingency plan prepared, what do you do with it?

A. Okay, of course the OCD has the Rule that says that we may impose additional requirements.

Then you submit the plan, you submit it to the OCD electronically, you submit to the LEPC -- that's the Local Emergency Planning Committee -- within 180 days of determining the ROE the submissions are required, and plans may be submitted with APDs or permits to drill.

Q. And although it's not specifically mentioned in the Rule, it very likely would also be submitted with an application for permit of a new facility building, new facility of some other kind?

A. That is correct.

Q. Go ahead.

A. And then there's a clause in there for penalties

may be imposed for failure to submit. There's annual reviews are required of the plan, and plans must be made available.

Q. So every year they have to go back and look at this plan again and be sure it's adequate, based on any new data?

A. That's correct.

Q. And do they have to update the call lists so they get new people that have moved into the area or new businesses and so forth?

A. Yes, that is correct.

Q. Now, when do they have to take this contingency plan out and start acting under it?

A. Okay, we have a section called Activation Levels. And so from a generic standpoint, anytime there's a release of any potentially hazardous volume that we had already discussed and defined, then they have to activate the contingency plan, or if the sustained concentration is greater than 50 parts per million of H_2S at the property line of the facility.

Q. Okay. Now if they have a potentially hazardous volume, only if they have a potentially hazardous volume do they have to have a contingency plan. And then we're talking again about a potentially hazardous volume determining when they have to activate the plan.

What volume do they measure to determine the potentially hazardous volume that requires them just to draw up a plan?

A. Okay, it determines on the radius of exposure.

Q. Well, right, but that determines whether you have a potentially hazardous volume.

A. That's correct.

Q. But to determine whether you have a potentially hazardous volume for the purposes of determining whether you have to have a contingency plan, do you not look at the volume of H_2S in your gas stream?

A. Well, you look at volume and concentration.

Q. Right, in the gas stream.

A. That's right.

Q. Even if nothing significant has been released --

A. Oh, I see, I --

Q. We'll defer to Dr. Lee --

A. Yeah, I see what you're saying. If the --

Q. -- there's always some release, but --

A. If the concentration of the H_2S is greater than 50 parts per million and that reaches the property line, then that activates the --

Q. Right.

A. -- you have to activate the contingency plan --

Q. Right.

A. -- regardless of what the flow rate is.

Q. Yeah. But what I'm trying to get to is, you look at your volume and concentration of H_2S in your gas stream to determine whether you have to have a contingency plan, correct?

A. Yes.

Q. And you look at the volume and concentration that escapes in a release to determine whether you have to activate, right?

A. No, that's not entirely --

Q. Well, okay, what --

A. That's not entirely correct, because if you have a sudden release, a total blowout of a well or something --

Q. Right.

A. -- in my mind, you know, if that particular well was in a PHV area, that's going to activate that contingency plan. Because I can guarantee you, people are not going to be waiting around to measure 50 parts per million, they're going to activate that plan.

The 50 parts per million was put in there because there could be a release that's inside, in close proximity to houses, okay? It may not be the full-blow uncontrolled situation, but it could be life-threatening to people or members of the public.

And so remember, the 50 parts per million, as

Randy had pointed out, is the level that once the worker -- once they sense 50 parts per million is beginning to -- they have to either leave or don emergency equipment.

Well now, the work group took a hard look at that, because what we didn't want happening is -- I mean, we had talked about numbers 10, 15, 20, but what we did not want happening, because there are several times that they have 10, 15 parts per million, but it never leaves -- you know, it never leaves the property line or the pad, and they did not want for us to be crying wolf all the time and activating these emergency contingency plans and evacuating people when there was no reason in it.

And so the 50 parts per million is when OSHA says that their workers either have to leave or they have to don equipment. Well, we all decided that if you have to don breathing equipment, you're beginning to lose control of the situation, and that is time to enact the emergency plan, no matter what the gas flow rate would be.

Q. Okay, I think I'm beginning to understand, though, absent this second criterion, the 50-parts-per-million sustained concentration at the property line, what you do is, you look at the volume in the gas stream, and if there has been a release you assume that the -- you calculate the potentially hazardous volume based on the volume in the gas stream. You assume it's basically -- the

release is going to be at the maximum level, but would it be possible for that gas --

A. For a PHV, that's correct.

Q. For the purpose of determining whether you have to activate your contingency --

A. That is correct.

Q. Okay. Is there anything else you need to say about contingency plans before we go on to other subjects?

A. No.

Q. Very good. Then Subsection F is a specific regulation of drilling operations, correct? Drilling or workover?

A. Yes, that is correct.

Q. And there are quite a lot of these Rules that govern drilling and workover operations, and I'm going to ask you to go through them and summarize them rather quickly. If the members of the Commission have questions about particular Rules, certainly we can go into them, but we don't to go into detail on each one of this large number of Rules.

So would you summarize the H_2S Rules regarding drilling and workover operations?

A. Yes, the proposed Rule for this is found in Subsection F, Drilling, Workover and Servicing Operations.

We incorporate the API standard, that's the

American Petroleum Institute standards, are incorporated. They have documents, they have guidelines, and they have published best management practices for these, so we have incorporated those in this Rule.

There are minimum standards that we require, and I'm going to go through these rather quickly.

Of course, we require an H_2S contingency plan where required, training shall be completed, all safety and warning systems shall be operational, detection and monitoring equipment shall be operational, there shall be egress routes in order to get away from the source of contamination.

Operators shall provide detection and monitoring equipment --

Q. You may want to switch the slides as you go through.

A. Okay. Operators shall provide detection and monitoring equipment. There's -- We do have set points for -- automatic set points for visible and audible alarms to activate at 20 parts per million. There's -- A detection system shall be calibrated and tested and recorded.

Wind indicators and signs shall be required.

Operating practices where H_2S is greater than 100 parts per million: There shall be -- Mud systems shall be used, alternate methods of mud can be approved. There

shall be flares, ignition and supplemental fuel systems required.

Q. And a part of that mud requirement is that they do have to have mud, as opposed to air drilling or something that might not be sufficient to contain the gas stream?

A. That is correct.

Q. Continue.

A. Then there's a section there that would require remote-controlled chokes, valves and blowout preventer stacks when they're in a PHV area. So we have special requirements for equipment when they're in a PHV area.

Mud programs are required. Drill stem well testing requirements -- certain requirements for drill stem testing.

And that's -- Now we're at Subsection G.

MR. BROOKS: Okay. Are there any questions? I know we'll tender Mr. Price generally, but because we went over a lot of material very fast, if the Commissioners would like to ask any questions about these specific requirements, I would suggest that this might be a good time.

CHAIRMAN WROTENBERY: Okay, let me ask a question about the applicability of Subsection F.

There are certain parts of this subsection where

you specify the circumstances under which the provision would apply, but there are others I'm having a hard time figuring out, like the wind indicators and signs. Does that apply to all oil and gas operations in the state, or to only those with 100-part-per-million H_2S or --

THE WITNESS: Right.

CHAIRMAN WROTENBERY: -- what? I couldn't -- I was having trouble following --

THE WITNESS: Right.

CHAIRMAN WROTENBERY: -- the structure of the Rule.

THE WITNESS: Thank you, Chairman Wrotenbery. Yes, if you have H_2S greater than 100 parts per million in any production or downstream facility, then the requirements that I went through fairly quickly, yes, do apply.

Now, there are some additional requirements if you have -- these operations are within a public area.

Q. (By Mr. Brooks) Well, is it not true that the signage and warning-indicator requirements apply only if the operator anticipates encountering hydrogen sulfide?

A. Yes, that's correct.

Q. Because of -- Part 2.b [*sic*] on the top of page 5 contains the sentence, "Detection and monitoring equipment is not required for drilling from the surface to within 500

feet of the zone anticipated to contain hydrogen sulfide."

A. Yes, that's correct, and the reason for that is that most of the operators rent this equipment, and this equipment is very expensive. And in very few areas do we have hydrogen sulfide within the top 500 feet or there was no need to have that until they got within 500 feet of a zone that had hydrogen sulfide.

Q. And while it doesn't say that in the Rule specifically, I would assume that if they're not required to have warning equipment until they get within 500 feet of the zone anticipated to contain hydrogen sulfide, that if there is no such zone, if they're drilling in an area where hydrogen sulfide is not reasonably to be anticipated, then they don't have to have this equipment unless and until they actually do encounter it. Would that be a fair assumption?

A. That was our intent.

MR. BROOKS: Okay.

CHAIRMAN WROTENBERY: Do we need to do some drafting to clarify that intent --

THE WITNESS: We might.

CHAIRMAN WROTENBERY: -- for some of these paragraphs?

MR. BROOKS: That might be a good idea.

Okay, any other questions that the Commission

would like to ask at this time with regard to the specific drilling requirements in Subsection F?

Very good.

Q. (By Mr. Brooks) What does Subsection G of the Rule deal with?

A. Okay, Subsection G is the proposed Rule for production facilities and downstream facilities.

Once again, we incorporate the API standards.

We have minimum standards, once again. We have H_2S greater than 100 parts per million.

Q. Okay, now let me stop you just a minute. Now, when we say production facilities and downstream facilities, a well which is pumping or flowing but doesn't have a rig on it, that is a production facility?

A. That is a production facility.

Q. Okay. And this minimum standard of 100 p.p.m., that is in lieu of the 500 p.p.m. standard in present Rule 118?

A. That is correct.

Q. Continue.

A. Okay, under this particular Rule, if any facility has H_2S greater than 100 parts per million, then operators shall complete an H_2S contingency plan, once again, where required, if they have a PHV.

Danger or warning signs are required, signs shall

meet certain standards.

There are standards for location. Fencing shall be done and signs on the fences. Flow lines shall have signs. And then fencing and gates are required if the facility is located in a public area within a quarter mile of a residence or school, et cetera. And then fencing shall meet certain standards and gates shall remain unlocked when unattended.

Wind-direction indicators are required.

Now, secondary well controls are required when any well's ROE of 100 parts per million incorporates a public area. So there's more stringent requirements if you're in a public area.

Wells shall have a secondary means of immediate well control, such as appropriate Christmas tree design, downhole completion equipment, equipment shall allow accessibility under pressure.

Next slide.

Automatic safety valves or shut-down systems are required, once again, when you're in a public area and you have H_2S greater than 100 parts per million, or the radius of exposure incorporates a public area.

And then we have a special section for tanks or vessels.

Q. Okay, let me interrupt you just a second. When

you say vessels, what do you mean? We're not going to find a lot of ships in New Mexico.

(Laughter)

A. These are normally high-pressure tanks.

Q. Okay, continue.

A. Okay, tanks or vessels containing greater than 300 parts per million are subject to some additional requirements. This is where -- The original Rule was 1000; we've lowered it to 300. And so there's additional requirements for marking or restricting access to the stairway or ladders going to the top of tanks, there's danger signs required. Once again, the sign has got to meet certain requirements and the location of these signs.

Q. And just to review, this 300-parts-per-million H_2S standard for tanks or vessels is in lieu of 1000 parts per million contained in present Rule 118?

A. That is correct.

Q. Continue.

A. And then there's a compliance schedule that all facilities shall meet the requirements of this subsection with a year of the effective date of this rule.

Q. Very good. Once again, we've been through a number of highly detailed provisions very rapidly, so at this time I would like to pause in case the members of the Commission would like to anticipate cross-examination and

ask questions about these particular provisions at this time.

COMMISSIONER BAILEY: One. I realized, going through this section, that there was no discussion about the disposal facilities, and so I went back to the scope of the Rule. And it does state that this applies to all facilities subject to jurisdiction, including -- and then the whole listing.

Does this apply to disposal facilities, or are you relying on another rule?

THE WITNESS: No, this does apply to any facility under the regulatory authority of the Division.

COMMISSIONER BAILEY: Okay.

MR. BROOKS: Commissioner Bailey may have a point that we'd want to look at on drafting, because I had not focused on this, but I notice that the title says protection of hydrogen sulfide at crude oil pump stations, producing wells, tank batteries and associated production facilities, refineries, gas plants and compressor stations. There's no "and other" in there, nor are waste-disposal facilities mentioned.

So while the title doesn't control the content, we might want to check and be sure that the content is in there, and if it is, correct the title; if it's not, be sure that the content is accordingly modified.

COMMISSIONER BAILEY: Thank you.

CHAIRMAN WROTENBERY: Commissioner Lee, did you have --

COMMISSIONER LEE: (Shakes head)

CHAIRMAN WROTENBERY: I wanted to ask a couple of questions on the compliance schedule. You've talked in several places about deadlines for complying with particular parts of the Rules, and I wanted to talk about how that applies to new facilities.

And if you'll go back to page 2 of the draft, in the first instance where you're back to your testing and calculation of the radius of exposure, there's a provision in here that says the calculation of the radius of exposure must be submitted to the Division within 180 days of commencing operations. That's if there is a potentially hazardous volume that may be present.

I can understand how that would apply to existing facilities. I'm having a little trouble understanding how that applies to new facilities, because we have some other provisions in this Rule that require you to have your contingency plan, for instance, prepared and submitted with the APD, and some other language in here suggesting that your intent for new facilities is that you go ahead and do this work before operations commence.

Could you talk a little bit about what is

supposed to happen with new facilities?

THE WITNESS: Yes, it was our intent for any new facility to have the contingency plan in before they operate. It might be that the standards that we're talking about here under compliance schedule, this might be existing facilities, but it doesn't read that way. And I'm going to look at that just for a second here.

CHAIRMAN WROTENBERY: I'll point you to a couple of other places. On page 4 under Submission, paragraph 5, concerning the submission of the contingency plan --

THE WITNESS: Page 4?

CHAIRMAN WROTENBERY: Uh-huh. -- what is says is that the contingency plan shall be submitted to the Division no later than 180 days following submission of the radius of exposure required in Subsection D.

If that were read to apply to new facilities, then basically it would be submitted one year after commencement of operations or -- It could be read that way, anyway.

THE WITNESS: Could be read that way.

CHAIRMAN WROTENBERY: On the other hand, there is language in here that says you've got to have it for a new well with your APD, so...

MR. BROOKS: Well, does it say that you have to have it, or merely that you may submit it? I think it's

probably intended that you should, but I don't know if it says that. It says the H_2S contingency plan may be submitted separately or along with an application for permit to drill.

THE WITNESS: There might be two separate issues here, one, contingency plan that needs to be put in, and the other is a compliance schedule to bring your equipment up to new regulations.

In other words, if you have -- in the very first part of Subsection G we have, operators shall complete an H_2S contingency plan where required. And by definition, the contingency plans would have to be put in before they start up.

But if they're an existing facility, then I would think that they would have one year to bring all of the minimal standards up to date. That was our intent.

Our intent was not to have them -- to a year and a half to be able to put a contingency plan. It doesn't read that way. We probably need to correct that.

CHAIRMAN WROTENBERY: I think it definitely needs to be clarified, because there's some broad language in here about submission of contingency plans --

THE WITNESS: Right.

CHAIRMAN WROTENBERY: -- 180 days after certain events.

THE WITNESS: Right.

MR. BROOKS: Mr. Price, are you making notes on all these issues where the honorable Commissioners have requested clarification in the draft?

THE WITNESS: Yes, and I see that my boss is too.

MR. BROOKS: Well, it's best if one person makes notes so we can be sure they're all there, although we can cross-check lists.

And since I have shown off my ignorance by showing how little I know about these technical matters I've been questioning you about, I'll have to show off my learning by mentioning Chairman Wrotenbery's previous comment about the omission of -- or Commissioner Bailey's previous comment about the omission of treatment facilities, raises the question of whether this would be construed in accordance with the principle of *inclusio unius exclusio alterius est*. So we'll make sure that little snake doesn't --

(Laughter)

CHAIRMAN WROTENBERY: Thank you.

THE WITNESS: I'd like to say, I'm not sure what he said.

(Laughter)

CHAIRMAN WROTENBERY: We've got it on the record, so we'll -- later.

MR. BROOKS: Is there anything further that anyone would like to ask about Subsection G before we go on to the wrap-up provisions?

CHAIRMAN WROTENBERY: Go ahead.

Q. (By Mr. Brooks) Okay. Now, there's one question about contingency plans that I didn't ask you that I would like to go back to, and that is, are you familiar with the hydrogen-sulfide contingency plans that are required of operators under the United States Bureau of Land Management Onshore Order Number 6?

A. Yes, I am.

Q. And how do our plans interrelate with those? Will the operator that's operating on federal land have to prepare two completely different plans, one for us and one for the Bureau of Land Management?

A. No, he will not, and that certainly was not our intent.

Q. Could you describe how those requirements interrelate?

A. I think if you look at Onshore Order 6 and you look at our Regulations, you will see there's a very close correlation.

Q. Very good. But it is our intent that operator will have to comply with both?

A. Yes, that is correct.

Q. Okay, but we believe they will not require two completely different plans?

A. Correct.

Q. Okay. Now let us go to what I refer to as the wrap-up provisions. These are relatively brief provisions that appear at the end of our proposed Rule 52. Looking at paragraph H on the bottom of page 7 and slide 21, what does this require?

A. This is -- Subsection H in the Rule basically requires all persons responsible for implementing any H_2S contingency plan to be trained in certain areas, and those would be hydrogen-sulfide hazards, detection of hydrogen sulfide, personal protection and contingency procedures.

Q. And Subsection I on page 8 requires what?

A. This standards for equipment exposed to hydrogen sulfide, Subsection I in the Rule. It requires operators to choose equipment with consideration for both the H_2S working environment and stress. It also incorporates the NACE standards -- that's the National Association of Corrosion Engineers -- and it allows corrosion protection by chemical inhibition.

Q. And what is Nace?

A. That's the National Association of Corrosion Engineers.

Q. And are the standards that they promulgate

recognized in the industry as scientifically reliable standards?

A. Yes, they are.

Q. Subsection J provides what?

A. Okay, this is the area -- You know, there's no perfect rule and there's no perfect plan. There's always an exception to every rule. And we always want to make sure that we're flexible enough to accommodate that, as long as it's protective of public safety.

And so in the Rule you'll see a red-line strike out of the way it was written, and so we've replaced the language.

I'd like to read the language, and it's --

Q. Well first, before you do, the general provision of Subsection J is, is it not, that it is an authorization to the Division to waive or modify some of the requirements in specific instances of this Rule?

A. That is correct.

Q. Okay, go ahead and read the new provision, which is a modification of that which we've proposed in the Application.

A. Right. "An exemption to certain requirements of this Section may be granted by petitioning director. Any such petition shall provide specific information as to the circumstances that warrant approval of the exemption

requested and how the public safety will be protected. Submission of a safety plan required by other governmental agencies may accompany the petition for exemption. The director, after considering all relevant factors, may approve an exemption if the circumstances warrant..."

And our intent here is -- There are some very, very good safety plans out there that companies have under other governmental agencies, and our intent here is to allow them to continue the use of those.

Q. Okay. Subsection K deals with what is to be done immediately upon the occurrence of the release, correct?

A. That is correct.

Q. And what does it provide?

A. Well, it -- anytime you have a release, the activation of the contingency plan is required when a PHV has been released, or if the concentration of H_2S parts per million by volume is greater than 50 parts per million at the property line of the facility, and it requires notification within one hour of the discovery, if practical, because we know in emergency-response situations it's much more important for the company to be focusing on abating the problem, rather than giving the OCD a call. And so then, also, then it's a reporting requirement on our Spill Report Form, C-141, within 15 days.

Q. And Subsection L is by far the shortest

subsection, and it provides what?

A. Well, if for some reason the work group decided there were certain things that were in the language that we felt we could just summarize by giving the OCD the authority to require corrective actions in order to maintain control of a well facility and in order to safeguard public safety.

Q. Thank you very much. Now, Mr. Price, having studied this Rule and been intimately involved in its formulation, in your opinion, your professional opinion as an environmental engineer, are the provisions incorporated in this Rule necessary for the protection of the public health and safety of citizens of the State of New Mexico and of the environment?

A. Yes, it is.

Q. And are these provisions reasonably adequate to those ends?

A. Yes, they are.

Q. Were Exhibits Numbers 1 and 2 prepared by you or under your direction?

A. Yes, they were.

Q. And Mr. Price, do you believe that the material incorporated in Exhibit Number 2 is reasonably reliable information on which the Commissioners can rely in judging the adequacy of this plan?

A. Yes, I do.

MR. BROOKS: Very good. I will offer Exhibits 1 and 2 into evidence.

CHAIRMAN WROTENBERY: Exhibits 1 and 2 are admitted into the record.

MR. BROOKS: Pass the witness.

CHAIRMAN WROTENBERY: Commissioners?

EXAMINATION

BY CHAIRMAN WROTENBERY:

Q. I just had a couple of follow-up questions under the definitions, the discussion of the definition of escape rate. There is a sentence that addresses new wells in an undeveloped area or wildcat wells, and it says the escape rate may be determined by using offset wells completed in the interval in question.

I was a little puzzled by the use of the term "offset well" in connection with a wildcat. And I also noted that this sentence doesn't address new wells drilled in a developed area, which I think is a situation where offset wells might be available for consideration.

So it appeared that maybe part of that sentence had dropped out?

MR. BROOKS: It does appear that it needs some rewording and some rethinking of how, in fact, you would determine the radius of exposure for a wildcat well,

because obviously you can't rely on offsets when there aren't any.

THE WITNESS: Well, I would like to -- Thank you, Chairman Wrotenbery, I would like to answer that question. I agree with you, maybe we need to clear that language up a little bit.

However, we do have a mechanism in place that if you're drilling a wildcat well, that you have to assume a 100-parts-per-million radius of exposure at 3000 feet. That's --

Q. (By Chairman Wrotenbery) Where is that provision?

A. I hope I didn't misspeak. That was in our language at one time.

MR. BROOKS: I do not at all believe that it is now. And if you can find it, fine, but I don't recall anything to that effect.

THE WITNESS: Give me a couple minutes, and let me --

CHAIRMAN WROTENBERY: Okay.

THE WITNESS: Well, then, I apologize, because I think in one of our earlier drafts we did have that in there, and I do apologize, because now I don't --

CHAIRMAN WROTENBERY: I may be in there.

THE WITNESS: Is it?

MR. ANDERSON: Top of page 2, 13.d.

THE WITNESS: Oh, yes, I'm sorry. I thought I was dreaming or something. Okay, top of page 2, under 13.d, "For a well being drilled in an area where insufficient data exist to calculate a radius of exposure, but where hydrogen sulfide could reasonably be expected to be present in concentrations in excess of 100 parts per million in a gaseous mixture, a 100-parts-per-million radius of exposure equal to 3000 feet shall be assumed."

So we have some protection there. I'm sorry for that mental lapse there. So...

Q. (By Chairman Wrotenbery) It's a complicated --

A. This Rule is a fairly complicated Rule.

MR. BROOKS: Thank you very much for the observation.

Q. (By Chairman Wrotenbery) And I just wanted to ask a question about the meaning of C.13.c. It's in the definition of radius of exposure, and it talks about situations where you have multiple sources of hydrogen sulfide present --

A. Right.

Q. -- and it basically just comments that "the radius of exposure may encompass a larger area than would otherwise be calculated using a radius of exposure computation for each component part." In effect, what does

this say that you do when you're calculating the radius of exposure?

A. Okay, what the intent here is, is that if you have -- and I'll just use an example. There's a proposed or an actual large flood down in the Hobbs area in which you have hundreds of wells in that area. And let's say you have one well that calculates a radius of exposure, let's just say 100 parts per million, 1500 feet. Then you have these other wells that they're only 1300 feet.

There's no reason to have to go through all those calculations when you know the one well is going to be at that distance anyway.

And so you can actually just assume that to be the radius of exposure for all of them. It would be the worst-case radius of exposure for all of them. It was put in there to simplify projects that have several wells.

Q. Okay. And then one final question on page 4. In the paragraph under "Retention and On-site Inspection" there's a provision that "An H_2S contingency plan shall be reasonably accessible in the event of a release and maintained on file at all times and shall be available for inspection by the Division."

Where will this be maintained? The caption indicates on-site, but would it always be on site?

A. Thank you, Chairman Wrotenbery. That was

probably our largest discussion topic in the work group, and we have -- the wording you see here was the consensus of the work group, and we know that it's not always totally practical that every pumper have this plan in his pickup. However, with the advent of the fact that -- of people -- you're seeing more and more field people have computers, it's very possible that they all have these on-site.

That's not -- That wasn't the actual intent, that we go to a blowout and there's going to be a station there that's got the contingency plan. That wasn't the intent. The intent is, it should just be made readily available as soon as practical.

Q. Okay. Should we strike that word "on-site", in that case, to avoid some confusion about what the meaning is --

A. Oh, in the --

Q. I think, if I remember the principles of statutory and regulatory construction, the captions don't really mean anything anyway, but it does raise a question.

A. So just it should be called retention and inspection.

Q. And inspection.

A. I agree, that can be stricken.

CHAIRMAN WROTENBERY: Okay, that's all I had, and I believe that was all the Commissioners had.

Let me ask, Mr. Foppiano, Mr. Nance, did you have any questions of Mr. Price or --

MR. FOPPIANO: I have one clarifying question, if I could.

CHAIRMAN WROTENBERY: Sure.

MR. FOPPIANO: Rick Foppiano with OXY. And let me just preface my question by saying that we certainly appreciate the opportunity to participate in the work group. We compliment the OCD on the process they employed to secure input and participation from industry, and we think that the Rule as proposed is a very good rule and an improvement over even what other jurisdictions have in how it approaches several things.

So we're very supportive of the product that's being recommended here today and just think it's a very high-quality product and there was a lot of input that went into it and a lot of thought.

I do have one question. I just wanted clarification.

The Rule contemplates activation of a contingency plan, I think, in the event of a -- obviously, a potentially hazardous volume.

But also it requires or contemplates, if you have a release that has an H_2S concentration, where that H_2S concentration is 50 p.p.m. at a property line or something

like that, I'm just wondering, is there a situation where you can have a facility or a well or whatever that could be having a release of H_2S, an accidental release, that is 50 p.p.m. at a property line, but because there is no potentially hazardous volume -- in other words, there is no public anywhere near, it would be impossible to activate a contingency plan because, in fact, one doesn't exist because one is not required?

I'm just wondering that. Could you speak to that? Because I'm a little confused as to how you could activate a contingency plan at 50 p.p.m. activation level --

THE WITNESS: Right.

MR. FOPPIANO: -- when one may not exist.

THE WITNESS: Thank you very much, Mr. Foppiano.

Yes, we discussed that, and generally when you have those situations there will not be a contingency plan, because it's kind of out in the middle of nowhere. And so the work group discussed that in detail, and we struggled with the language on it, and we figured that question would be asked.

And so we -- and I'm not sure if I'm going to answer this in the way that really satisfies you, but basically we felt that if you do have operations out in the oilfield, there's no public areas around, there's no public

roads, then you basically -- it's just negated, because you don't have a plan to activate, you don't have something to activate, and you're not required to activate something.

The OCD would not in any form or fashion contest you on something that you don't have to activate, nor that you're not required to activate. And so we did discuss that in detail.

So the answer to your question, I don't think you have anything to worry about there.

MR. FOPPIANO: And so you're comfortable that the wording doesn't create a problem because of the -- there just wouldn't be a contingency plan to activate?

THE WITNESS: Yes, I'm very comfortable with that.

MR. BROOKS: Madame Chairman, may I ask a follow-up question?

CHAIRMAN WROTENBERY: Certainly.

MR. BROOKS: Mr. Price, I admit I didn't fully understand these concepts. I understand them better, I think, this morning. I started to say I didn't fully understand them till this morning, but I -- it would be presumptuous of me to suppose I fully understand them now. I just understand them somewhat better than I did prior to this morning.

But given the testimony you've just given and the

testimony you previously gave to the effect that if there is a sufficient concentration of hydrogen sulfide in the gas stream where the release occurs to create a potentially hazardous volume, then you activate the contingency plan upon the occurrence of any release. And quite reasonably, you said you don't wait to measure how much is actually released.

Is there any situation in which the 50 parts per million would apply to require activation of a contingency plan that wouldn't be activated merely by the occurrence of the release itself?

THE WITNESS: I think the answer to that question is yes, there would be.

And you have to understand that during these release episodes and during these emergencies, it's my experience that -- particularly in the oilfield, and particularly when you're dealing with H_2S, that most operators, almost all of them that I know, they're going to be on the conservative side, and if they think that they have a problem they might go ahead and activate their contingency plan when they may not have to.

MR. BROOKS: But can you describe any situation in which the 50-parts-per-million requirement would actually require the activation of a contingency plan that would not otherwise be required to be activated by the PHV

requirement?

THE WITNESS: I'm not sure if I can answer that question with a lot of accuracy.

MR. BROOKS: Okay, very good.

CHAIRMAN WROTENBERY: Anything else, Mr. Foppiano?

MR. FOPPIANO: No. Thank you very much.

CHAIRMAN WROTENBERY: Mr. Nance, did you have any questions?

MR. NANCE: I have no questions, I'd just like to make a statement at some point in time.

CHAIRMAN WROTENBERY: Okay. Well, then, I think --

MR. BALL: Ms. Wrotenbery --

CHAIRMAN WROTENBERY: Oh, I'm sorry.

MR. BALL: I'm sorry, I don't know the protocol on this, but I would like to ask or make a statement.

CHAIRMAN WROTENBERY: Okay, if you'll just introduce yourself?

MR. BALL: Okay, my name is Jim Ball with Phillips Petroleum. I've testified here before in the past.

CHAIRMAN WROTENBERY: Okay. Would you like to -- Why don't you ask the question of Mr. Price at this point, and then there will be an opportunity to make a

statement --

MR. BALL: Okay.

CHAIRMAN WROTENBERY: -- in a minute.

MR. BALL: Mr. Price, I also had a hard time with that same area, and I don't know how at the end of this testimony, if there is going to be an additional period to clarify things that -- number 9, activation level, which you just referred to, and then at the very end, I think it was K.1.

I would like to see a little bit better clarification on that. I think there's a few people that do have some concerns as to what kicks in or what applies in this situation.

Then my other question to -- is regarding the notification wording. It's not necessary that Mr. Price -- it's -- I don't -- I notice that the word electrification is used three or four times here. In paragraphs 3 and 4 -- I believe I could just find it three times, either the words electronically, electronic and electronically, particularly the first one is in 3.d [*sic*].

Where I'm going with this is, although I work for a large company now, for over 20 years I worked for smaller companies, and I feel like that there is an awful lot of -- for lack of better terms I'll say mom-and-pop shops, and they're still out there, and I don't think that they really

got into the e-mail world and things like that.

And I was just going to suggest that 20 years from now it won't be a problem, but today I can see a lot of mom-and-pop shops that don't have the use of e-mail or the -- to learn it at their age. And if you just took out the word "electronically" and "electronic" in those situations, maybe that would be less abrasive to certain individuals and maybe cause less harm to everyone involved.

CHAIRMAN WROTENBERY: Mr. Price, let me ask you, how do you envision this electronic filing requirement playing out in the event of a mom-and-pop operator that didn't have the capability to file electronically?

THE WITNESS: Thank you, Chairman Wrotenbery. That topic was discussed in our work group, and that topic did come up. And so we felt, and we understand -- or I certainly understand what you're saying there. There is, I believe, a rule for small operators about submitting hard-copy information.

Anyway, we felt that under our Subsection J exemptions that that could be handled in that area.

Of course --

CHAIRMAN WROTENBERY: So an operator that didn't have the capability or the --

THE WITNESS: Right, right.

CHAIRMAN WROTENBERY: -- know-how to file

electronically could send in a request for approval to file in --

THE WITNESS: Yes.

CHAIRMAN WROTENBERY: -- hard-copy form?

THE WITNESS: Yes.

MR. BALL: Well, okay. I guess my preference would be just to leave out, but I'll leave it to you all.

But like you said, it's a good document overall, and those were just some comments that I had.

CHAIRMAN WROTENBERY: Thank you, Mr. Ball.

Any other questions for Mr. Price or -- Mr. Anderson and Mr. Bayliss are still here.

Okay, thank you, all of you, for your testimony.

Did you have anything else, Mr. Brooks?

MR. BROOKS: Madame Chairman, the Environmental Bureau Chief has requested a brief recess in order to be able to address some of the questions that have been raised.

CHAIRMAN WROTENBERY: Okay, why don't we do that -- I'm sorry, Mr. Bruce?

MR. BRUCE: If this hearing is going till noon, could I just wonder if you guys are going to take a lunch break and when we may reconvene?

COMMISSIONER LEE: Will you buy us lunch?

(Laughter)

CHAIRMAN WROTENBERY: We'll start up -- What is that, 25 till? There's a glare up there. We'll start up at probably one o'clock on the Marks and Garner hearing.

Let's listen to any other statements we have, and then we can take a short break.

THE WITNESS: Am I excused?

CHAIRMAN WROTENBERY: Uh-huh.

MR. BROOKS: Very good.

CHAIRMAN WROTENBERY: Mr. Nance?

MR. NANCE: Yes, ma'am. May it please the Commission, I'm Tom Nance, I'm the executive director of the Independent Petroleum Association of New Mexico, the small, non-integrated producers.

We have indicated in the work-group meetings and in our written comments we are opposed to this Application for the new Rule.

We're not aware of any problems that have arisen under the current regulation, current Rule, and we feel like the enactment of this new rule would just be an additional and unnecessary and even onerous burden on the small independent producers in New Mexico.

We're particularly about conflicts in this proposed Rule and the BLM and the OSHA requirements.

Also, at this time, because of the voluminous technical testimony here today and also any possible

changes in the proposed Rule, we'd like to request an additional 30 days to file written comments.

Thank you.

CHAIRMAN WROTENBERY: Thank you, Mr. Nance.

Did anybody -- Oh, Ms. Seligman?

MS. SELIGMAN: Deborah Seligman, New Mexico Oil and Gas Association.

I probably should have gone before Tom instead of after Tom, because NMOGA wants to commend the OCD, the Environmental Bureau, their ability to work with industry, allowing us the elaborate process we went through, through the work-group process, and we feel that 99 percent of the suggestions made by industries have been incorporated or clarified in some form of the new Rule, and I thank the Environment Bureau Chief as well as his staff for that opportunity.

CHAIRMAN WROTENBERY: Thank you, Ms. Seligman.

Anybody else?

Okay, Mr. Brooks has asked that we take a short recess so that the staff can talk about some of these issues.

Let me tell you what I'm going to propose to do and see if we need to do that at this point.

Given that we've raised some drafting issues in the course of this proceeding today, we've also got Mr.

Nance's request for some additional time to submit written comments, what I am thinking we should do here is ask the staff to look at the drafting issues and make some -- whatever changes are appropriate to address those issues, and then make available the revisions within the next week or two, I'd say, no later than the end of the month.

Do you think that would be possible, Mr. Brooks?

MR. BROOKS: I see my client nodding here.

CHAIRMAN WROTENBERY: Okay. And then once those are available, we could provide some additional time for comment. I'm looking at the calendar for August, and our meeting is on the 30th of August, I believe, the next Commission meeting.

And so what I would propose is that we then leave the record open, not only for the submission of the revisions by the staff but also for any additional comments in written form. And we could leave the record open until -- I'd say the 16th of August would work well for us, because that would give our Commission counsel time to take a look at any additional comments that are received before the next Commission meeting.

Does that sound reasonable, Mr. Nance?

MR. NANCE: Yes, ma'am, that sounds very reasonable. Thank you very much for your consideration.

CHAIRMAN WROTENBERY: Mr. Brooks?

MR. BROOKS: Madame Chairman, the Environmental Bureau Chief advises me that a revised draft can be produced in one week.

CHAIRMAN WROTENBERY: Excellent, okay. So we should then have the revised draft of the Rule available for anybody who's interested on the 26th -- is that right? --

MR. BROOKS: That would be correct.

CHAIRMAN WROTENBERY: -- of July. The record will remain open until the 16th of August for the submission of written testimony, and then the Commission will be prepared to take some action, I would hope, on this rule-making proposal at its meeting on August 30th.

Mr. Ross, does that procedure satisfy all of our requirements?

MR. ROSS: Yes.

CHAIRMAN WROTENBERY: Okay. Any questions from anybody about that procedure?

MS. McGRAW: Just for clarification --

CHAIRMAN WROTENBERY: Yes, Kate?

MS. McGRAW: Are you continuing the case, or are you taking the case under advisement but holding the record open?

CHAIRMAN WROTENBERY: We're leaving the record open until the 16th of August, at which time I guess we'll

consider that it's taken under advisement, and we'll plan to act on it at the Commission meeting at the end of August.

Now, Mr. Brooks, do we need to take a break and hear back from the staff?

MR. BROOKS: No, thank you, madame Chairman. We have nothing further at this point.

CHAIRMAN WROTENBERY: Okay, thank you very much.

Then I believe that will be all for this proceeding.

It's probably a good time to take a lunch break, and we will reconvene at one o'clock. Thank you.

(Thereupon, these proceedings were concluded at 11:45 a.m.)

* * *

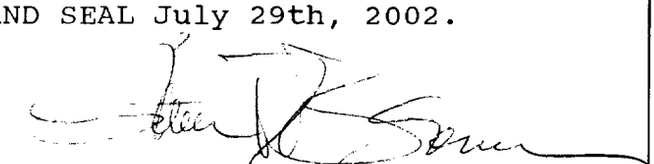
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Commission was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL July 29th, 2002.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002