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:	
APPLICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION FOR THE REPEAL OF EXISTING RULES 709, 710 AND 711 CONCERNING SURFACE WASTE MANAGEMENT AND THE ADOPTION OF NEW RULES GOVERNING SURFACE WASTE MANAGEMENT	CASE NO. 13,586

REPORTER'S TRANSCRIPT OF PROCEEDINGS

COMMISSION HEARING

BEFORE: MARK E. FESMIRE, CHAIRMAN
JAMI BAILEY, COMMISSIONER
WILLIAM C. OLSON, COMMISSIONER

Volume VI - May 18th, 2006

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Commission, MARK E. FESMIRE, Chairman, on April 20th-21st, May 4th-6th, and May 18th, 2006, 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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C U M U L A T I V E I N D E X

April 20th-21st, May 4th-6th, and May 18th, 2006
Commission Hearing
CASE NO. 13,586

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C U M U L A T I V E I N D E X (Continued)

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C U M U L A T I V E I N D E X (Continued)

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C U M U L A T I V E I N D E X (Continued)

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Additional submission by NMCCAW, not offered or admitted:

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A P P E A R A N C E S

FOR THE COMMISSION:

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(Continued...)

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

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By: STEVEN C. SUGARMAN

FOR YATES PETROLEUM CORPORATION AND AN INDUSTRY COMMITTEE:

JORDEN, BISCHOFF & HISER, P.L.C.
7272 E. Indian School Rd., Suite 205
Scottsdale, AZ 85251
By: ERIC L. HISER

* * *

ALSO PRESENT:

JOHN BARTLIT, PhD
New Mexico Citizens for Clean Air and Water

CARL CHAVEZ
Environmental Engineer, OCD

JERRY FANNING, JR.
Yates Petroleum Corporation

KARIN FOSTER
IPANM

RAND FRENCH (Marbob Energy Corporation)
Industry Committee

DAN GIRAND
Mack Energy Corporation

TIM GUM
District Supervisor, District 2, NMOCD

(Continued...)

ALSO PRESENT (Continued):

SUZANNE P. HOLLAND (ConocoPhillips)
Industry Committee

CAROL LEACH
General Counsel
NM Energy, Minerals and Natural Resources Department

EDWIN E. MARTIN
Environmental Bureau, NMOCD

RAY MOXLEY
Chevron

OCEAN MUNDS-DRY
Holland and Hart

DONALD A. NEEPER, PhD
New Mexico Citizens for Clean Air and Water, Inc.

DENNIS NEWMAN (OXY)
Industry Committee

LISA NORTON
Yates Petroleum Corporation

FRED OCHESKY
Williams

RONALD W. OPSAHL
Mountain States Legal Foundation

WAYNE PRICE
Environmental Bureau Chief, NMOCD

DEBORAH D. SELIGMAN
NMOGA

BRETT F. WOODS

* * *

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

CHAIRMAN FESMIRE: The third case that's on the docket is the continuation of Cause Number 13,586, the Application of the New Mexico Oil Conservation Division for repeal of existing Rules 709, 710, 711 concerning surface waste management and the adoption of new Rules governing surface waste management.

At this time is there anyone present in the audience who would like to make a statement on the record? Okay, the record will reflect that no one chose to make a statement at this time.

I believe where we were, Dr. Neeper, you were about to begin your cross-examination; is that not correct?

DR. NEEPER: I understand that is correct, sir.

CHAIRMAN FESMIRE: Okay, and you've been previously sworn?

DR. NEEPER: I have been previously sworn.

CHAIRMAN FESMIRE: Okay. Mr. Huffaker, did you have a cross-examination of this witness?

MR. HUFFAKER: I do not.

CHAIRMAN FESMIRE: Mr. Carr?

MR. CARR: No, I do not.

CHAIRMAN FESMIRE: Mr. Hiser?

MR. HISER: I do.

CHAIRMAN FESMIRE: Okay.

MR. HISER: Thank you.

DONALD A. NEEPER (Continued),

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

CROSS-EXAMINATION

BY MR. HISER:

Q. Good morning, Dr. Neeper.

A. Good morning, sir.

Q. I'd like to go over just a couple of points on your presentation from the last time that we were gathered together. And on slide 9, if you perhaps wanted to look at that -- and I'm afraid that's the only slide I have a number for --

MR. PRICE: May I approach the witness?

CHAIRMAN FESMIRE: You may.

THE WITNESS: Perhaps things will work better with someone else operating the computer.

CHAIRMAN FESMIRE: For the purpose of running the projector.

MR. HISER: Numbers are in the upper corner. There you go -- overshot -- There you are.

THE WITNESS: Okay.

Q. (By Mr. Hiser) Okay, so you were testifying about water flow and, to some extent, also chloride flow,

and you can see on this slide that you've testified that fluids in soils often flow along preferential pathways; is that correct?

A. That is correct.

Q. And have you undertaken an investigation or a literature review to have any sense that you can quantify what "often" means?

A. I have undertaken a literature review in the sense of scanning a quantity of literature that relates to this particular topic. One of my slides, I believe, indicated that simply in one library of one professional organization there were some 70 citations of peer-reviewed professional literature relating to that topic.

If you look in the standard, more or less common textbooks of vadose-zone hydrology and even saturated hydrology, you will find the treatment of flow in preferential pathways brought up. It will appear in almost every book.

The difficult question is what to do with it, because it's difficult to treat mathematically.

Q. Right. Now you may -- Were you here for the testimony of Dr. Stephens?

A. Yes.

Q. And so based on your review of this literature, are you challenging Dr. Stephens' contention that

preferential flow is unusual in the broad areas between like washes and away from the mountain recharge points?

A. I am suggesting you don't know until you look, and that depends on the scale at which you look. If you go to a sufficiently fine scale, of course, the flow is always in preferential pathways. There will be wider and narrower spaces between soil grades.

When you go to a larger scale, of the order of a meter or more, then it becomes a different issue. It's much easier to treat it by an average process. But I think you don't know until you look.

Now one way in which I come across that, shall we say, opinion is by talking to people who have been in the field, looking at particularly brine spills and finding that the brine spills may follow an irregular path going down into the ground, as they dig after those spills. So I can't say whether you can go out through, for example, an area as large as Lea County and claim that you will always have uniform flow. I think it's much more likely that you will find selected areas where the recharge occurs, more than in other areas.

Q. So your testimony is that there may be places where preferential flow occurs and that you don't really know where that preferential flow may occur?

A. That is correct. But our real question is, what

is the implication of that? And the implication is that we are trying to establish a standard, and our standard is based -- as presented, is based on a model that does not include preferential flow. And we are saying we want to adopt one rule that fits all situations, as we have to with a rule, and yet that rule is based on one narrow modeling situation, and therefore some caution is exercised. And that is the reason that I propose that the depth to groundwater beneath most surface management facilities should be 100 feet instead of 50 feet.

Q. But you don't have any idea how frequently we would find that, you just believe that that's a cautionary thing that should be considered by the Commission?

A. I certainly believe it's a cautionary thing that should be considered by the Commission, because the model is based upon the most favorable circumstance, not, certainly, the most unfavorable circumstance.

Q. You also talked a little bit further on in your presentation about chloride, and appeared to disagree some with Dr. Thomas on his contention that most of the toxicity effects from chloride come from the metals of the salt, the sodiums or the magnesiums, as opposed to the chloride; is that correct?

A. That's correct.

Q. You presented several studies that addressed

chloride, chloride toxicity directly --

A. Yes.

Q. -- I believe in your slides. Where did the chloride come from in those studies, if not from the metal chloride salt?

A. The chloride came from the metal chloride salt, but that doesn't alter the fact that the chloride itself was being toxic to the plant species.

Q. How can you separate the toxicity effect of the chloride from the toxicity of the salt when they can only be introduced together into the sample medium?

A. That's done -- I haven't done those experiments myself, so I'm trying to remember how they are done. You can do that by introducing the chloride via different salts. You can also do that by testing on the plant.

I'm thinking back within my own experience to a study that our group did on pine trees in Los Alamos that were being affected by street salting, and what we found in that case, actually, was an excess accumulation of the sodium in the needles of the pine tree. So presumably if there had not been sodium, then at least that particular toxicity would not have come into play.

So I think it's clearly possible to check for the chloride toxicity. This is apparent in the literature, it seems to be unquestioned.

Q. And did the particular studies that you looked at here address how they screen the metals out of that, or did they just discuss the chloride toxicity in general?

A. They were not discussing chloride toxicity in general, they were discussing chloride toxicity specifically because usually the sensitivity of the plant is due to the reduction in osmotic pressure, the reduction in moisture potential from the introduction of the salt, of whatever specie of salt that you use.

But these particular literature studies were looking at the effects in the plant of the chloride itself or the sodium itself or whatever ion itself was going on. And at the time of looking at it -- somebody is doing a credible piece of experimental work -- that question doesn't come to the top, it's solved. And so I don't remember how it was settled in those particular cases in the literature.

Q. You don't know quite how it was settled in these cases?

A. But it has to be settled when one is doing such a study and publishing it.

Q. So you're assuming that it was settled?

A. Yes. What I'm saying is, I suspect it was settled very well and explained in the literature and that it was so ordinary I didn't bother to internalize their

method.

Q. Turning on to hydrophobicity, which is a topic that spoke on at some length, on the Li data, the L-i data, study that you looked at, is it not true that the concentrations of the petroleum hydrocarbon constituents found in that were more than twice what was being recommended by the industry committee to be left in the residual soil?

A. I have to go back and look at which study we had. If you'd like, I can scan back to the slides.

Q. Yeah, I think it's around slide 30-ish or so.

A. Let's try to look at the slide.

Q. Okay, it's obviously further back.

A. There's an L-i author, and there's an L-e-e author concerned with the --

Q. This is the L-i --

A. -- issues, and so...

MR. CHAVEZ: Keep going.

Q. (By Mr. Hiser) Just keep going. There's header that's called Hydrocarbons in Soils. No, you're going forward.

A. Oh, yeah, we're -- if we can get it on --

MR. CHAVEZ: Let me just do something here.

THE WITNESS: -- slide sorter, we can then see the whole set of slides.

MR. CHAVEZ: Where is that at?

MR. HISER: In Escape.

THE WITNESS: My screen, it's at the top.

MR. HISER: Hit Escape.

MR. CHAVEZ: Okay.

MR. HISER: And then go to View.

THE WITNESS: View.

MR. HISER: View, up at the top. Not File, View.

CHAIRMAN FESMIRE: View, not File.

MR. CHAVEZ: Oh, I'm sorry.

MR. HISER: Slide sorter, down, no up, second one down. There you go.

THE WITNESS: Let's go up here so we can see these. Okay. Now Mr. Hiser, if you see the slide as we scan --

MR. HISER: There it is, Li et al. conclude.

THE WITNESS: This thing is very sensitive. Did you see the number?

MR. HISER: It's in the third column, I didn't see what the number was.

MR. PRICE: Is it Conclusions regarding hydrocarbons?

MR. HISER: Might be.

MR. PRICE: Page 72.

MR. HISER: 72.

MR. CHAVEZ: 72.

THE WITNESS: Yeah, let's go down.

MR. CHAVEZ: Is this it?

THE WITNESS: Yeah, that must be it.

MR. CHAVEZ: You just double-click on it?

THE WITNESS: Yeah, put the arrow on it and double-click.

MR. CHAVEZ: Okay.

MR. HISER: Okay, well actually -- flip back up a couple pages, I think.

THE WITNESS: Just the up arrow?

MR. HISER: Just page up. Couple more.

MR. CHAVEZ: Petroleum hydrocarbons in soil.

MR. HISER: Getting close. There it is.

THE WITNESS: There it is.

Q. (By Mr. Hiser) Well anyway, the -- I guess it was perhaps best on the first slide, the 72, where that slide states that 10 percent is too much, 1 percent is perhaps risky, and .1 would be best.

Is it not the industry committee's recommendation that we choose about that 1 percent?

A. I'll try to answer both questions that you've raised.

First regarding the Li study, as I'm remembering, they had higher concentrations of hydrocarbons. But if we

look forward from this and associate that with the Roy study we find that hydrophobicity seemed to occur across a wide variety of concentrations and that it would be very difficult to pick any particular concentration of hydrocarbon below which you would feel for sure there was no hydrophobicity.

Q. But didn't the author in the Roy study conclude that, based on all of the review, that hydrophobicity was, in fact, a rare occurrence?

A. I -- looking at the data that she presented, I can't say that it's a rare occurrence.

Q. But do you disagree that the author herself in this case concluded that it was rare, in the study?

A. I would have to look back at the literal words of what she said. She had to hunt for sites to measure, but on the other hand she came up with many sites, as you notice by the number of dots on the graph that she has.

Q. Many sites relative to the total number of oil and gas sites across the North American continent?

A. Well, she operated strictly within one province of Canada for the study.

Q. And so -- but you don't have any idea of how many sites there were --

A. I know nothing about the oil and gas -- predominance of the activity in that province of Canada.

Q. Do you disagree with Dr. Sublette's testimony that hydrophobicity can be addressed by the additional organic matter?

A. I have no expertise in that, so I do not disagree. My concern is that the organic matter may decay and the hydrophobicity return. On the other hand, if you get plants growing long enough, they will generate more organic matter in the soil, so it's an unknown. I --

Q. So if we were to then --

A. May I finish my statement, please?

Q. Absolutely.

A. Therefore, I see that having bioremediation endpoint landfarms in some sense is a bit of an experiment. It's worth trying, but we can't necessarily assure ourselves it's going to work, and therefore my suggestion is, we approach it with some caution and some guarantees.

Q. Well, Dr. Neeper, if the requirements for a bioremediation endpoint include as appropriate the addition of the organic matter, as Dr. Sublette testified, and as a requirement to re-vegetate, which is -- I think variously you said a 70-percent or background -- and there's a couple different re-vegetation standards -- would that not address your issue of having the vegetation re-established and the continued maintenance of organic matter?

A. We have to try it to find out. We have agreed

that that vegetation has to be sustained on its own for a couple of years, and I think in that time we might begin to learn whether the vegetation can survive. I look forward to finding out, I just want to see some guarantees that if it fails for some reason we can clean up the mess and go forward.

Q. Moving on, then, to closure and corrective action issues, Dr. Neeper, does it make any sense for us to have a treatment unit that must meet closure standards at the commencement of treatment?

A. Let me interpret your question, and then you tell me if I'm wrong. I think you are relating to vadose-zone sampling, which says the samples at closure should not exceed background. And background is something you measure before you start treatment. Now is that what your question means?

Q. No, my question is more, does it make sense for us to limit the initial hydrocarbon loading in a landfarm, when the purpose of the landfarm is essentially to treat those hydrocarbons, to eliminate the toxicity and to eliminate the hydrocarbon in large part, or does it make more sense to just look at the terminal endpoint and see that we have achieved an appropriate closure standard at the end?

A. Both make sense. I have argued that the most

important thing is the closure condition, is meeting the closure condition. And therefore I have argued, for instance, in the case of chloride, for allowing a higher chloride content in the incoming material than you would have in the closure standard, because you might get one truckload of high chloride coming in, it gets mixed with everything else, and in the end you meet the closure standard.

In terms of the hydrocarbons, I see it makes some sense to put an upper limit on the concentration of hydrocarbons in the acceptable material, because when we look back in the studies and we see attempts to remediate very high hydrocarbon material, you find that you scan across the tables of what has been remediated, and you find kind of an average number that maybe they were able to remediate about 50 percent of it. That comes out of the second Salinitro paper that was featured in my testimony.

Q. Right. And in that case, though, mostly is that a question of rate at which the remediation occurs, and in that second Salinitro study do we know that the bioremediation endpoint had been achieved --

A. We don't know, without looking at the original literature in each one of those studies cited by Salinitro, exactly what occurred. But we know that if you come in with a large amount of hydrocarbon -- and we also know that

the heavier hydrocarbons are not well remediated by bioremediation -- then you will necessarily wind up with more hydrocarbons in the finished soil. There's no way around that, I think.

To meet your desired endpoint, you cannot have too much in the initial load, depending on the hydrocarbon.

Q. Which desired endpoint are we talking about now?

A. For instance the 1-percent endpoint.

Q. On the closure standards or the corrective action trigger, you were going to talk about the vadose zone and appropriateness of background. Do you want to continue that comment?

A. I had --

Q. -- different topic?

A. All right, I had made a statement somewhere in my presentation -- and it will be in our findings -- that we feel sampling of the vadose zone is more appropriately compared to background standard than compared -- excuse me, correction -- more appropriately compared to closure standards than to background standard.

Why would I say that? I'm not arguing against taking initial background measurements before you build the landfarm, I'm saying that background measurements will probably have a high variance. So will probably the measurements that you make. And you're not making very

many measurements -- the state proposes four samples, I'm proposing eight samples -- so you're likely to have a high variance. You now have a very arguable condition of whether a situation has exceeded background. You can sit there and argue statistics all day.

But in reality what counts, I say, is if the standard is good enough for the surface, it's good enough for the near surface. If it isn't, we ought to change the standard until it is.

And so to make the background -- the sampling, vadose-zone sampling, more meaningful, I think we should compare it to the closure standard. However, that comes with another very strong point.

I'm saying we should measure it at two feet beneath the treatment zone, not at four feet and certainly not at 10 feet. Ten feet will guarantee you a clean sample every time, within the history of the landfarm, not within maybe 100 years. Four feet will give you, probably in most cases, quite a long delay before you see something happening. And so again you could be having a release from the landfarm and not be aware of it. If you measure at two feet, you should start picking up signals within a couple of years, if you're getting a release, in time to tell you to do something about it.

Q. Doctor --

A. Furthermore -- Let me add a final point. There's a subtlety in this, especially with volatile hydrocarbons, and I've had a little experience with sampling for them. They will be driven in and out of the surface of the soil by barometric pressure oscillations, and also by diffusion. It's a transient thing. And so you might lay out a fresh load of BTEX-containing hydrocarbons on the surface. In a few weeks some of that gets its way down by vapors in the soil. Most of the time, if you sampled the soil, it's just mineral soil, you wouldn't detect it.

But if there are organic carbon in the soil, that will absorb the BTEX, and now you will measure -- let's say you take a sample, and you've got a hit, you see some positive BTEX and you say, I've got a release. Well, what you really have is a transient phenomenon, because wait a while, if it isn't remediated it will get ventilated back to the atmosphere again.

And so you don't want your sampling confused by false positives. And I see the best way around that is to sample at a two-foot depth and compare against closure standards. If you start exceeding closure standards at two-foot depth, you'd better look at what's going on up in your treatment zone.

Q. Now Dr. Neeper, did you testify that there had been an agreement reached between New Mexico Citizens for

Clean Air and Water and the Industry Committee?

A. Yes, I said we had reached agreement, strictly related to -- in its quantitative terms, related to the bioremediation endpoint landfarms.

Q. Now in that agreement was there some language, philosophical issue, about financial assurance?

A. Yes.

Q. And in that agreement did the New Mexico Citizens for Clean Air and Water and the industry committee reach any agreement on the amount of financial assurance?

A. I feel that philosophically we reached an agreement on the amount, but exactly how it could be applied or to what area or what would be the upper cap on it, we did not have an agreement, and therefore I would not feel at liberty to specify any number.

Q. And --

A. We did agree that the amount should be sufficient to cover what's called dig-and-haul, to remove material that does not meet the standard and properly dispose of it.

Q. And then do you understand that part of the industry committee's concerns about coming up with a number was that there should be some element based on the risk both to the environment and to some extent financially to the company, in establishing that final amount, that that was the industry committee's concerns in trying to reach a

final number?

A. I understood that the industry's committee concern was that they would like to have an upper cap on it so that the amount could not become arbitrarily large, and that there was some expressed with what might be a statutory limit on what OCD could prescribe, and I am not legally competent to look into or discuss that issue.

Q. I have, I guess, one last question. You mentioned a couple of times in your discussion of hydrophobicity something called the MED test?

A. Yes.

Q. Do you know if that's an EPA-approved method?

A. That's not an EPA-approved method. I believe I said so in my testimony. The thrust of my testimony was to say I believe there's a reliable test out there we could use if we wanted to look at MED.

MR. HISER: Thank you, nothing further.

CHAIRMAN FESMIRE: Mr. Brooks?

CROSS-EXAMINATION

BY MR. BROOKS:

Q. Good morning, Dr. Neeper.

A. Good morning, sir.

Q. I think my cross-examination will be very brief, but there are a couple of issues I would like to look at.

You, I believe, have advocated -- or your

organization has advocated a chloride limit of 500, rather than -- 500 p.p.m., rather than the 1000 that the Division is advocating; is that correct?

A. That is correct.

Q. Does that apply to small landfarms as well as the permitted landfarms? Is that your position?

A. Yes.

Q. You're aware that the industry committee is recommending a higher chloride limit, even higher than the 1000 for small landfarms; is that correct?

A. In a redline strikeout document that they submitted prior to the hearing, they had recommended higher limits.

Q. Okay, and you have not reached any agreement -- New Mexico Citizens for Clean Air and Water and the industry committee have not reached any agreement on chloride limits?

A. No, we have not discussed chloride limits to my memory.

Q. Now so far as the modeling that we have done, you show the hazards to groundwater from chloride loading in landfarms. The limitations on the capacity of small landfarms, particularly the small limitations advocated by the Division, undoubtedly would justify a contention or would give some basis for a contention that small landfarms

might present a lesser chloride hazard to groundwater, correct?

A. Well, I will acknowledge that the modeling, most of the modeling, was based on a small area which would be characteristic of small landfarms, but I do not see that a small landfarm necessarily presents any less hazard to the subsequent surface of the ground than a large landfarm.

Q. So then generally your concern about chlorides is -- in small landfarms, even though there may not be enough loading to reach the groundwater at a particular level, you would still be concerned about it because of the effects on the soil; is that correct?

A. I would be very much concerned about it because of effects on the soil, but there's a second philosophical point that comes in there. And that is whether a large landfarm or a small landfarm should be allowed to contaminate the groundwater, even though they are contaminating it to less than the standard. These are remediation facilities, not pollution-release facilities.

Q. Now I forget the details of your study. That's the disadvantage of cross-examining at such a long period of time from the original presentation. But --

A. I might forget my own testimony.

(Laughter)

Q. -- would it not -- is it not true that the hazard

of plant toxicity would increase considerably at -- as you went up in chlorides from, say, 1000 to 2000 or more parts per million? Was that not a fair conclusion from some of your --

A. This depends on your meaning of the word "hazard". As you increase the chloride content what you will find is that more and more species will be adversely affected.

Q. Right.

A. So at 500-parts-per-million chloride, quite a number of species are already affected. If you increase it to 1000, even more species will be affected. And this question of effect is subtle, because most of the tests in the literature are done with well-watered soils. And most of the effect of chloride or sodium chloride, the dissolution of salts in the pore water of soil, is due to the osmotic pressure that it generates, thereby starving the plant of water.

So in our dry soils, the situation is quite a bit more threatening than in a laboratory study or out in some well-watered agricultural soil. If you dissolve that chloride in the pore water -- and let's say you have 1000 parts per million, per unit mass of soil, and you're in agricultural soil with, let us say, 30 percent of the soil volume in water, now let's picture that chloride being

dissolved in that much water.

Now let's take that out into the New Mexico plains where you might have 10 percent or less volumetric moisture in the soil. You have in effect, as far as the plant is concerned, concentrated that chloride by a factor of three or more.

So the plant is not really measuring chloride per unit mass of soil, the milligrams per kilogram that we have to specify in the regulation. The plant is sensitive to the amount of chloride per unit moisture you have in the soil. And so as you dry out the soil, the effects of chloride become much more significant.

Q. Okay. I want to show you -- I'm really showing you this just for the purpose of asking if you're -- May I approach the witness?

CHAIRMAN FESMIRE: You may, Mr. Brooks.

Q. (By Mr. Brooks) My purpose in showing you this is primarily to ask you if your researches confirm it, because this is primarily a -- this is, we recognize, a study that was done on a very limited number of species. This is from the Division's, not from your presentation.

A. May I put up my own slide of the same information?

Q. You may. Okay. As I understand that exhibit, it plots this percent of -- now is that the -- That is not the

percent of species that will be affected, that's the percent of any given species that will actually prosper or grow; is that correct?

A. This is taken from a review article in which the authors looked at whatever literature they find regarding the sensitivity of plants. And here, instead of measuring the electrical conductivity of the soil -- or of the extract from the soil, the EC measurement, they actually looked at what studies had been done by spiking the soil with salt and then using the amount of salt that was added to the soil as the quantity on the horizontal axis.

Their two black arrows at 25th percentile and 50th percentile are showing where 25 percent of the species were affected or 50 percent of the species were affected. But since these were studies done against spiked soils, there are necessarily fewer data points here than the data points on other plots they have, which -- where the people doing the studies used the EC measurement.

Now what -- the upper arrow -- I have two arrows from blue grama grass. My upper arrow is the same as your upper arrow, or is intended to be, and that --

Q. I think ours is incorrectly drawn.

A. Yours --

Q. I believe Mr. Price --

A. -- yours moved --

Q. -- so testified.

A. -- but I saw an earlier version, so I knew where you were pointing, and I attempted to get at the same point.

MR. CHAVEZ: I'll get to it.

THE WITNESS: That's -- I looked in the IPEC guide sheet, and they listed a range of chloride concentrations where blue grama grass has a 50-percent yield reduction. And so what I did is simply draw on that red bar showing where the range is, and then interpreted the sodium chloride concentration in terms of a chloride concentration, and that's where the 825 milligrams per kilogram come from.

Now we have the data up, maybe we can clarify the question.

Q. (By Mr. Brooks) Okay. If you look at that graph, it appears that based on that data there would be a very considerable increase in the adverse effects on the tested species if you move from 1000 parts per million up to, say, 2000 parts per million; is that a correct --

A. Yes, more species will be affected.

Q. And does your research confirm that?

A. My research of the literature confirms that. My personal scientific research has not been on chloride sensitivities.

Q. Okay, thank you. Now I need to ask you briefly about the bonding issue. You have agreed with the industry committee that -- in principle, that the landfarming process should include sufficient financial assurance to ensure closure. This financial assurance should be equivalent to the cost of third-party dig-and-haul and disposal in an appropriate landfill.

When you were on the stand two weeks ago, you made some calculations. And I don't remember, can you refresh my recollection? What was the size of facility on the basis of which you made that calculation?

A. It was one acre.

Q. And what was the amount that you came to?

A. If we can find the slide, we will -- we will find it. It was of the order of about $70,000.

Q. $70,000 per acre?

A. Yes.

Q. And what would that come to if you had, say, a facility of 30 acres?

A. Let us find the slide, excuse me a moment. No, that's not it. We'll find it yet. Let's scan down. Please excuse us for a moment, because I think this will be more clear if we can look at the actual slide.

Q. Definitely.

A. There it is.

Q. There it is.

A. Yeah, so I see now that that was $75,000. And you asked me what would that be, I think, if it were 30 acres? It would probably be almost 30 times as much.

Q. Right.

A. Now what does this mean, however? I was clear in my testimony that I am not an expert at making engineering estimates --

Q. Right.

A. -- and that is not my basis. I said, I took the handiest numbers I could find, because I wanted to get an estimate of what could these costs be --

Q. Right.

A. -- but any person who questions this should put in his own costs.

If we notice the volume of wastes in an acre could be about 3200 cubic yards, and if we notice that the proposed bonding for a landfarm of arbitrary size is about $25,000, you can quickly come up with the fact that you would have about seven dollars and some cents available to remediate the facility from the bonding if the facility were only one acre.

And so I'm trying to show there is a gap between our philosophy and our actual amounts we put down.

Now where does the philosophy come from? If we

look at 53.C, subparagraph (1).(i), we say the closure plan should include a cost estimate sufficient to close the facility, and we say including costs as necessary for removal of all fluids and wastes, cleanup of contaminated soils and re-vegetation of the surface. So that philosophy is present in our Rule. We're saying that's what we intend the operator to do.

But when we come to financial assurance, we don't say that same thing in terms of the dollar amounts. We say -- and this is 53.C.(5).(b) -- we say, The facility's estimated closure and post-closure costs shall be the amount provided in the closure plan the applicant submitted unless the Division determines that such an estimate does not reflect a reasonable probable closure and post-closure cost, in which case the Division has to determine the cost.

Well, we have stated, in effect, that closure is -- the ultimate closure is dig-and-haul, removal of wastes and disposal. And we say that if the operator doesn't come up with what the Division thinks is a suitable estimate for that, then the Division has to.

And I'm pointing out that there is a great gap between the minimal amount the Division has specified of $25,000, which is probably not enough to remediate even one acre, and what you are proposing to permit, which is up to 500 acres at a time. And we ought to get honest about

this.

MR. BROOKS: Thank you. I believe that's all my questions.

CHAIRMAN FESMIRE: Before Commissioner Bailey starts, can we go ahead and open those doors, or it's going to get awfully hot in here. We're just going to have to put up with the noise, I think.

Commissioner Bailey, did you have questions of this witness?

COMMISSIONER BAILEY: Just a couple.

EXAMINATION

BY COMMISSIONER BAILEY:

Q. Somewhere in the vicinity of your slide 28 or 29 is a graph measuring electrical conductivity threshold against chloride threshold, and it has several different types of grasses --

A. I'll see --

Q. -- Exhibit

A. -- if I can --

Q. -- 10.

A. -- get enough confidence with myself here on this machine to find that. Twenty-eight or 29, it's up one more, it's up one more. I think it's this graph.

Q. Yes. The agreement in the letter with industry says that there will be three native species, including one

grass, with 70 percent coverage or coverage equivalent to background native vegetation, unimpacted by overgrazing, et cetera. Looking at this graph, can you tell me if any of these grasses that are labeled here fall under that category of three native species, including one grass? Can I find any of those labeled here?

A. I will answer as best I can, not being a plant agronomist. I understand that lovegrass is a native specie, and you find that down on the low end of the chart. I've also had a rancher tell me that the cows would almost rather starve than eat it --

(Laughter)

A. -- so that's hearsay evidence.

Whether the wheatgrass on the upper end is native, I can't say. I am sure you can find native species that are off the right-hand end of the graphs, because alkali sacaton will be up to an EC of about 14 or so, where it will survive. It's way up there. So certainly you can find a native specie that will survive.

I think our question is whether we should contaminate the soil to the level where only certain species will survive, or whether we take the philosophy that when the landfarm is finished, that soil should be open and available to whatever future use may come along, whether it's somebody's backyard or grazing lands or

whatever else it may be.

COMMISSIONER BAILEY: That's my bottom line.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: Thank you, I have a couple questions.

EXAMINATION

BY COMMISSIONER OLSON:

Q. One thing I maybe just want to clarify. I guess the -- you were recommending in your testimony the 500 p.p.m. chloride level as a closure standard. Is -- And that's not part of the industry agreement, but that's your group's proposal?

A. The industry agreement, in terms of any numerical standard that's in there, is limited to bioremediation endpoints. That's a narrow area in which we could achieve some numerical agreements. And in there you will find a statement that we agree to an EC of 4.

Now how you translate that EC into a chloride number is a difficult thing, because EC is -- in some sense is what the plant measures, but chloride is what's convenient to measure when you send a sample to the laboratory. So I did the best I could in trying to associate the two.

But our agreement says EC of 4.

Q. But that would only apply to closure using the

bioremediation endpoint. Why wouldn't it apply to -- if it's acceptable there for chloride content, why wouldn't that apply to all closure?

A. Well, my testimony, I'm trying to ask that it be applied to all closure. However, I can't speak for the industry on that part.

Q. But they did reach agreement for doing it just in the case of bioremediation endpoint?

A. Yes, our discussions were limited to the bioremediation endpoint, other than some philosophical points we made that we should talk some more.

Q. Well, I guess since we don't get a chance to question them more about this, why -- what was their rationale for only applying it to bioremediation endpoints?

A. We simply didn't discuss the other things, the discussion didn't go there. It was enough for us, in the limited time, to try to deal with the bioremediation endpoint issue and not solve all the other issues on which we might have differences of opinion. We were persons finding areas where did agree, rather than finding areas where we could argue.

Q. Would you think it would be acceptable to apply that same EC closure standard to all landfarms, then?

A. That would be my choice. And that's not a pristine standard. That standard is accepted, or has been

adopted by a variety of agencies, principally -- the best review was done on the Canadian provinces. But that even is the recommendation of the American Petroleum Institute, and so I'm very much in favor of the EC 4. If I were trying to be a purist, I would go for an EC of 2 or something, but I think that would be unreasonable. You can't expect nothing to happen out there. So EC of 4, I find to be a very acceptable standard, applied widely.

There are going to be some plants damaged with that, that's the way it's going to be. But there will be a wide variety of things that should survive.

Q. And then on the closure standards, including the 1 percent of total extractable petroleum hydrocarbons, are you testifying that that should be in concert with your recommendation for 100-foot depth to groundwater? Do these closure requirements apply to those -- I didn't see this -- I know you've testified about looking at the 100-foot depth to groundwater for all landfarms.

A. That's correct. But that is my statement, we did not discuss that with the industry, so whether they agree or differ with that is totally up to them. That just is not part of the subjects under which we discussed things.

Q. But it's your opinion, then, that those closure standards would be protective in concert with a 100-foot-depth-to-groundwater requirement?

A. I am suggesting that a 100-foot-depth-to-groundwater requirement is much more protective than the 50-foot depth. One reason for that is that, as the chloride progresses through the ground, if it's not being carried rapidly by preferential pathways, sometimes it follows a diffusion-like process, and a diffusion-like process is slowed by a factor of four if you double the distance. There is no magic one distance that's ever going to be safe, as you know. We have incidents of contamination of groundwater at depths of 100 feet or much greater in New Mexico. But you buy yourself a lot more protection.

Now the OCD presentation stated that in part its proposal for a 50-foot depth was based on small landfarms, and that many small landfarms would be prohibited from existence if you had a 100-foot depth. And therefore, at least in my redline strikeout materials, and I believe in my testimony, I could allow the 50-foot depth for a small landfarm. Now that's arguable. I think other people would argue against that, but I would rather have the 100-foot depth for all facilities except small landfarms than to have the 50-foot depth for all facilities, and I recognize the need for small landfarms.

Q. I guess -- do you know many -- I know this is probably a question more for the Division, but do you know

how many facilities there are now, landfarm facilities, that are less than 100 feet to groundwater?

A. I haven't looked at it against depths to groundwater. I once had a list of facilities, but -- and I only had a list of commercial facilities.

Q. So you probably, I guess, wouldn't know at the same time if there's been any groundwater problems at the facilities that are less than 100 feet to groundwater, the current ones?

A. Let me interpret your question. What I think I heard you say was something to the effect that if -- there may be many facilities with less than 100-foot depth to groundwater, and if there were problems with the groundwater we would know it by now.

I'm saying -- I'm asking a different question. I'm saying, under how many of those facilities have you drilled and looked? Because that's the real answer. If you want to know the answer, you have to go out and look a lot.

Q. In your testimony you've recommended 8-percent slope angles on the cap. I'm not an engineer, what's that equate to?

A. Well, that's an 8-foot rise in a 100-foot horizontal distance.

Q. Okay. So that's --

A. That number came from the API, American Petroleum Institute, recommendation.

Q. Okay. And you talked a little bit in your testimony about sufficient water for landfarming operations. And should there be a requirement, then, in the -- as part of the permitting process for demonstration of water rights or water availability for operational facilities? Should that be part of the permit application?

A. This part of the discussion is related strictly to the bioremediation endpoint landfarms, because the other landfarms at present we are considering to be dry landfarms.

As has been explained by other expert testimony, operation to the true bioremediation endpoint requires good gardening practice, which in New Mexico requires water. My experience as a small farm irrigator in northern New Mexico was, I needed about three acre-feet per acre to water, and that's a common experience in New Mexico. Some places it requires more, and that's for just a seasonal crop.

So we know this is a significant amount of water that's required to meet the 60 to 80 percent of field capacity that's recommended for the bioremediation endpoint. The only way we know you're going to have that water is to require evidence of it up front when you write the permit.

I could see it being tempting for the Oil Conservation Division to say, Water's not our business, that's the State Engineer's problem. But that's ignoring the problem, just as it would be to say, if produced water were illegally disposed along the roadways, that's the county's problem.

In fact, the OCD regulates that proper disposal of produced water, and in this case my recommendation is, it should see the proof of legal water and of what we call wet water, or the accessibility to physical water, in the application for the permit. That's the only way that you'll know that that water really exists and is available to the operator.

Q. That's a significant amount of water. Is that really a -- I don't know, best use of our water resources?

A. It's not up to me to judge what is the best use of our water resources, particularly in this venue. Water in New Mexico flows uphill to money, and I cannot judge that here.

Q. I guess just maybe a -- one last question. I was trying to wonder if you've got -- some of these levels that we're talking about for chloride -- I think you've testified 500, the Division 1000 and industry 2000 in chloride levels. What sodium level is equated with those chloride levels?

A. The sodium level is going to depend much more on how you measure it, and that's why so much of the testing focuses on either the chloride level or on the electrical conductivity, because the sodium becomes bound to the clay particles in the soil, and so how much sodium is in the solution of the pore water depends very strongly on the nature of the soil, much more so than the chloride. And that's why almost all regulatory procedure focuses on the electrical conductivity or on the chloride.

Sodium also occurs naturally to some extent in the minerals of the soil.

The recommendation I would have would be for what is called the sodium absorption ratio, which is a function of the soil itself. It tells you how much sodium has come into the sodium itself. And I would welcome regulation on the sodium absorption ratio, keeping it below a number like 5.

However, with -- in the industry agreement I have agreed to a number like 13. And you may wonder, if I want 5, why would I agree to 13? The industry and I agreed to an EC number of 4, and I'm hoping that will tend to keep the sodium down, and we just -- that we wouldn't get into a sodium problem.

And some of my view on that comes from my asking OCD personnel at one point or another, why would you not

regulate sodium? And their answer was, If we can regulate the chloride, that's probably sufficient, we will have control of the sodium thereby too.

So not to complicate the Rule, and not to argue more, I would live with an EC of 13 number, which is right at the edge of severe damage for the bioremediation landfarm, simply because I think we're unlikely to get there.

Q. I was just asking because I have personal experience at my house with high sodium, about 600 part per million in my water, and essentially it turns the soil into concrete after a period of time, and not much grows in it, really.

A. Yes, you're getting a sodic soil --

Q. Right.

A. -- you probably have a high SAR.

Q. Right.

A. That can happen.

Q. And that's at about 600 part per million of sodium.

A. Yes. It's again philosophical. I can't win absolutely every point I would love to have. I have to leave room for other people to operate.

Q. So I guess according to this agreement, then, if you're agreeing to the EC of 4 millimhos per centimeter,

then never -- the way you're seeing it, you'll never really exceed a SAR -- a SAR of 13 is kind of -- I guess is -- will never really be exceeded, then, if you're --

A. I can't guarantee that, I can just hope that we don't get to that SAR.

Q. That seems like a high level for a SAR.

A. It appears often in the literature as a threshold for severe damage.

COMMISSIONER OLSON: I think that's about all I had.

I'd just like to make a comment that I just -- appreciate -- it's good to see some of our environmental groups that try to work with people to get some reasonable solutions, and I really appreciate your efforts on trying to work with everybody on this, so...

THE WITNESS: Thank you.

EXAMINATION

BY CHAIRMAN FESMIRE:

Q. Doctor, more by way of summary than anything else, I was asked the question yesterday -- day before yesterday -- why are we so concerned about salt when we use salt on our roads all the time? Do you have an answer for that question?

A. Yes, sir, I do.

(Laughter)

A. It was about 30 years ago I took on the battle of salt on the roads, because of the damage it was causing. And as I looked into the literature, the damage wasn't just related to Los Alamos, New Mexico, it was in forests throughout the west. And people in Maine and what's called the winter belt -- there's some name for that territory -- were losing their drinking water wells just due to road-salting.

So I am also not in favor of road-salting. There are alternatives, but like everything else they're more expensive.

CHAIRMAN FESMIRE: I have no further questions.

Mr. Sugarman, did you have a redirect on this witness?

MR. SUGARMAN: I have no redirect, Mr. Chairman.

CHAIRMAN FESMIRE: Okay. Mr. Brooks, do you have a rebuttal case that you'll be putting on?

MR. BROOKS: Mr. Chairman, honorable Commissioners, we do have one rebuttal point we want to make.

Also, we have, as the Commission requested, completed a redline showing the changes we're currently recommending. A couple of these in our opinion -- well, three of these in our opinion should be explained to some extent.

We are requesting, therefore, permission to re-open our case for the limited purpose of explaining these particular changes that we're currently recommending. And I believe that I have talked to all of the counsel, and no one is going to object to that.

CHAIRMAN FESMIRE: For the record, is there any objection?

MR. HUFFAKER: No objection.

MR. CARR: No objection.

MR. HISER: No objection.

MR. SUGARMAN: No objection, Mr. Chairman.

CHAIRMAN FESMIRE: Mr. Brooks, why don't you begin, then?

Dr. Neeper, I want to express my thanks for your participation in this. I appreciate it.

DR. NEEPER: I am dismissed as a witness?

CHAIRMAN FESMIRE: You're dismissed as a witness, I guess.

MR. BROOKS: Can we get somebody to go upstairs and pick up the -- Carl? We should have three more copies of this in the printer. They should be ready by now, if you can go get them --

CHAIRMAN FESMIRE: Mr. Brooks, why don't --

MR. BROOKS: May I approach the Commission?

CHAIRMAN FESMIRE: You may, sir, but I'm going to

suggest something else. If it's going to be a minute, why don't we take a 10-minute break and reconvene at 10:15 and go till noon?

MR. BROOKS: That would be fine.

CHAIRMAN FESMIRE: Okay, thank you.

(Thereupon, a recess was taken at 10:05 a.m.)

(The following proceedings had at 10:17 a.m.)

CHAIRMAN FESMIRE: Let's go back on the record. Mr. Brooks, I believe you were going to begin your rebuttal case?

MR. BROOKS: Well, it seems that the witness that I intended to call first is not present, but I can call my other witness, and hopefully the other witness will come back before I get through. So I'll call -- at this point I'll recall Mr. Chavez.

CHAIRMAN FESMIRE: Okay. Mr. Chavez, you've been previously sworn?

MR. CHAVEZ: I have, Mr. Chairman.

CHAIRMAN FESMIRE: I wondered why you were wearing a tie this morning.

(Laughter)

MR. BROOKS: Honorable Commissioners, before I start let me just state that I believe most of the changes in redline are responsive to comments that were made by members of the Commission, and so I do not think they will

need further explanation. I think they were explained at the time the witness was asked about them on the stand during the previous presentation.

But there were one or two situations where we felt it was necessary to make some changes that were not discussed in order to accommodate a point that was raised by a member of the Commission, and it's for that point that we -- for that reason that we have put some additional -- called some additional witnesses here. Or called for some additional testimony. We haven't called any additional witnesses.

CARL J. CHAVEZ (Recalled),

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

DIRECT EXAMINATION

BY MR. BROOKS:

Q. Mr. Chavez, you are testifying in this proceeding as an expert on landfills, correct?

A. I am.

Q. And I will call your attention, on page -- to page 25 of the revised -- of the revised May 17, 2006, Rule. Would you read the sentence of J.(1) that has the significant redlining on it?

A. Re-vegetation, except for landfill cells, shall consist of establishment of a vegetative cover equal to 70

percent of the native vegetative cover found in undisturbed areas surrounding the facility at the time of closure.

Q. Okay. Now disregarding for the moment the "except for landfill cells", this is basically the proposal that was made by the industry committee, is it not?

A. It is.

Q. And we interpreted Commissioner Bailey's observations at the previous hearing as indicating that that was, at least in her judgment, the appropriate way to go on these things?

A. I believe this was derived formally from the landfarm discussion on 70-percent re-vegetation of the reference area.

Q. Right.

A. However, we have identified for landfills that that would not apply, a more feasible application would be to 70 percent of the landfill cover.

Q. Okay. So then let me call your attention to the provisions on page 26 and going over to page 27. That's 53.J.(4).(b).(ii). Would you read that provision for us?

A. The operator shall re-vegetate the area overlying the cell with native grass cover covering at least 70 percent of the landfill cover and surrounding areas, consisting of at least two grasses and not including noxious weeds or deep-rooted shrubs or trees, and

maintenance of that cover through the post-closure period.

Q. Now Mr. Chavez, would you please explain to the Commissioners why the Division felt that the -- 70 percent of the reference area was not an adequate standard for landfill covers, for re-vegetation?

A. Well, for a landfill we're dealing with a top cover with a liner and protective cover system, along with topsoil. And in discussions with the Mining and Minerals Division on reasonable percentage of re-vegetation we basically came to this conclusion.

Q. And what function does the re-vegetation serve in the case of a top cover for a landfill that would be different from the functions that it would serve in just a disturbed area generally?

A. Well, first and foremost it provides slope stability, controls erosion. Secondly, it helps to minimize infiltration down through the soil from plant roots, evapotranspiration and minimization of infiltration and percolation through the waste. That would e like the second most important function.

Q. Okay. And you also had in this provision on page 26 the provision that the re-vegetation will not include deep-rooted shrubs or trees, correct?

A. Yes. We felt it was necessary to go ahead and specify wooded plants with deeper root growth would not be

acceptable on top of a landfill cap cover.

In our preliminary evaluation we had identified grasses as being the plant species of choice, and so we decided to go ahead and include some language to exclude shrubbery and tree growth on top of the cap.

Q. And why was that?

A. Due to root-depth growth and damage to the geomembrane and top landfill cover.

Q. And if the roots went down and damaged the geomembrane, what consequences could that have?

A. We would have percolation, not only infiltration but we'd have percolation through the cover and into the waste, saturating of the waste, increasing the volume of leachate recovered in our leachate recovery system.

Q. Okay. In your opinion, are these enhanced standards for re-vegetation of landfill covers necessary to adequately protect the environment from the release of the contents of the landfill -- of the waste contents of the landfill?

A. Absolutely, it would minimize the leachate volume, and it would also minimize gases escaping from the landfill that could potentially cause a problem to nearby population.

MR. BROOKS: Pass the witness.

CHAIRMAN FESMIRE: Okay. Would you --

CROSS-EXAMINATION

BY MR. HUFFAKER:

Q. Is it your understanding, Mr. Chavez, that the language in J.(1) regarding 70 percent native vegetative coverage -- are you there?

A. Yes.

Q. -- found in undisturbed areas surrounding the facility at the time of closure, was drafted to be consistent with the industry-NMCCAW agreement?

Maybe I should ask you a foundation question. Did you draft that language?

A. Yes.

Q. All right. Was it drafted to be consistent with the NMCCAW-industry agreement that was admitted at the end of the last session?

A. No.

MR. HUFFAKER: That's all I have.

CHAIRMAN FESMIRE: Mr. Carr?

MR. CARR: No questions.

CHAIRMAN FESMIRE: Mr. Hiser?

MR. HISER: No questions.

CHAIRMAN FESMIRE: Mr. Sugarman?

MR. SUGARMAN: Yes, we do have one or two technical questions that will be propounded by Dr. Neeper.

CHAIRMAN FESMIRE: Okay.

MR. PRICE: Would you like to sit here?

DR. NEEPER: With your permission, I'll simply stand here.

CHAIRMAN FESMIRE: That would be fine.

CROSS-EXAMINATION

BY DR. NEEPER:

Q. This is in regard to the same paragraph, J.(1), and the same line which states, equal to 70 percent of the native cover found in undisturbed areas surrounding the facility at the time of closure.

Our agreement with the industry had to do with a 70-percent absolute coverage, unless the backgrounds wee different. Is there a reason why you would propose less than that at this point for coverage?

A. I'm not aware that we're asking for less. I think we're actually asking for more in the fact that we're looking at the 70 percent of the landfill cover cap area and surrounding area. Am I misunderstanding your question?

Q. I think I should rephrase the question. It says re-vegetation, except for landfill cells -- so presumably this applies to landfarms -- shall --

A. Oh, I'm sorry, yeah.

Q. -- shall consist of a vegetative cover equal to 70 percent of that found in the undisturbed areas. That is, if an undisturbed area had 70 percent, this would then

be a 49-percent; it would be a 70 percent of 70 percent. And is there a reason, for that proposed reduction over what we have arrived at in conversation with the industry?

A. Since this is a landfarm question, I'm going to have to defer that to Mr. von Gonten. Okay? It is more of a landfarm-related question, and I did not have much involvement in the landfarm aspect of re-vegetation.

CHAIRMAN FESMIRE: So the answer is, you don't know?

THE WITNESS: I don't know.

DR. NEEPER: That's all I have, thank you.

CHAIRMAN FESMIRE: Commissioner Bailey?

COMMISSIONER BAILEY: No questions.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: No questions.

THE WITNESS: May I approach the bench?

MR. BROOKS: For what purpose?

THE WITNESS: The 12-inch, versus 6-inch.

MR. BROOKS: Okay, request permission of the Commission.

THE WITNESS: May I approach the bench, Mr. Chairman, to discuss a -- There was a 12-inch provision change as well; is that correct, Mr. Brooks? Are you going to talk about that? That was under page 16, under (3).

MR. BROOKS: Okay. Well, I'll ask you about it

then, if you --

THE WITNESS: It's under (3).(h) of page 16.

MR. BROOKS: Page 16 of the revised draft? Yes, I believe we did talk about that yesterday, yes, sir.

FURTHER EXAMINATION

BY MR. BROOKS:

Q. That change was suggested by Commissioner Bailey, was it not?

A. Commissioner Bailey had brought up the issue of the 6-inch topsoil and 12-inch native soil, and the top cover being only 18 inches in depth, and she was concerned about the root-zone depth and suggested that the Oil Conservation contact the Mining and Minerals Division of the Energy, Minerals, Natural Resources Department, ecologist, to provide further insight into the depth of the topsoil.

Q. And did you do that?

A. I did.

Q. And as a result of that contact, what did you conclude?

A. I was in contact with Mr. David Clark, the ecologist at MMD, and he indicated that 12 inches of soil over 12 inches of fill would be adequate.

May I approach the bench to provide Mr. Clark's response to our inquiry?

Q. Well, I suspect there may be an objection that it's hearsay.

(Laughter)

CHAIRMAN FESMIRE: And if the attorneys don't have the guts to do it, the Chairman will.

(Laughter)

Q. (By Mr. Brooks) Based on your conversations with Mr. Clark, did you conclude to recommend the change from 6 to 12 inches?

A. I did.

MR. BROOKS: Okay, thank you. I will again pass the witness.

CHAIRMAN FESMIRE: Are there any questions from the attorneys on that point?

MR. HUFFAKER: (Shakes head)

MR. CARR: (Shakes head)

MR. HISER: (Shakes head)

CHAIRMAN FESMIRE: Mr. Sugarman?

DR. NEEPER: No, sir.

CHAIRMAN FESMIRE: Doctor?

Commissioner Bailey?

COMMISSIONER BAILEY: No.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: Well, I might have to now.

(Laughter)

EXAMINATION

BY COMMISSIONER OLSON:

Q. I guess that was your consultation with the New Mexico Mining and Minerals Division. Are you aware that the New Mexico Environment Department in their mine permits requires 3 feet of cover for maintaining adequate plant growth?

A. I was not aware of that, *per se*, but in my evaluation of various maps of protective covers based on geographic areas, I derived the inch range that I provided, 12 to 40 inches, and that's for, I believe -- that's for the frost protection under the topsoil of 12 to 40 inches. In southeast New Mexico it came out to actually 10 inches. We provided 12 inches in southeast New Mexico. In northwest New Mexico that frost-protection depth was more on the order of 40 inches.

So in addition to all the covers, if we were to -- you know, we have 12 inches of topsoil, 12 inches of native soil, protective frost zone below that, and then we have an additional 12 inches of fill below that, on top of the geomembrane. We're looking at -- what? 30 inches right there for the southeast New Mexico area, or greater.

COMMISSIONER OLSON: Okay. That's all I have.

CHAIRMAN FESMIRE: Okay, and I have no questions of this witness. I'm assuming that Mr. Brooks will have no

questions --

MR. BROOKS: No questions.

CHAIRMAN FESMIRE: -- no further questions of this witness.

Mr. Chavez, thank you very much.

MR. CHAVEZ: Thank you, Mr. Chairman.

CHAIRMAN FESMIRE: Mr. Brooks, you indicated you had a second witness?

MR. BROOKS: We call Ed Martin.

CHAIRMAN FESMIRE: Mr. Martin, you were previously sworn in this case?

MR. MARTIN: I was.

EDWIN E. MARTIN (Recalled),

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

DIRECT EXAMINATION

BY MR. BROOKS:

Q. Good morning, Mr. Martin.

A. Good morning.

Q. Mr. Martin, I will first ask you some questions in terms of rebuttal. Were you in the room this morning when Dr. Neeper re-iterated his presentation regarding cost to dig and haul from landfarms?

A. I was.

Q. I ask you that because I believe you were not

here when Dr. Neeper testified the first time?

A. That's correct.

Q. Do you believe his costs are realistic in terms of what it would actually cost? Do you think $75,000 an acre is a reasonable estimate for digging and hauling?

A. I'm not sure of that. But if it is, the cost to dig and haul 30 acres, which we're using as kind of an average size of a landfarm --

Q. Okay, yeah, let me stop you. You are the permit writer, you are familiar with the size of the commercial landfarms that we currently have permitted, correct?

A. Yes.

Q. And what is the general range of size that we're talking about?

A. Small one would be 5 to 10 acres, a large one would be 60 to 70 acres, so we're using -- we're kind of looking at 30 acres as an average.

Q. Okay. Then go ahead and tell us what would be the bonding requirement for a 30-acre landfarm at the rate of $75,000 per acre?

A. About $2.5 million.

Q. From what you know about our commercial landfarm operators, would they be able to continue in business if they were required to submit bonds of that magnitude?

A. In my opinion, no.

Q. And what would be the consequences of these people being eliminated from the available places for treatment -- these landfarms being eliminated from the inventory of available options for hydrocarbon-contaminated soils?

A. It would decrease the options for the industry to dispose of their waste. In addition to that, in my opinion, it would be prohibitive for any other small operator, quote, unquote, small landfarm operator, to start that type of business.

Q. Okay. Most of these landfarm operators -- and to clarify, we're talking about small operators, not about small landfarms, right?

A. Correct.

Q. When we're talking about the 30 acres, we're talking about considerably larger than the small landfarms contemplated in the --

A. Conceivably.

Q. Yeah. These operators of the existing permitted landfarms, most of them would probably be small businesses in terms of the definition of being fewer than 50 employees, would they not?

A. That's the context I used, the word small, yes.

Q. And if they were put out of the landfarming business by the -- by the bonding requirements that would

be imposed, would you think they would be adversely affected?

A. Yes, I do.

Q. Okay. Now our Rule -- does our Rule contain provisions with regard to permitted landfarms requiring continuous treatment zone monitoring?

A. Yes.

Q. And also does it require continuous vadose zone monitoring?

A. Yes.

Q. Now if these Rules are regularly and properly complied with would that, in many instances at least, alert the Oil Conservation Division to a problem that was developing at the time to permit it to take some remedial action while the cost would still be manageable?

A. I believe so. I don't think it was the Division's intent to ever consider digging and hauling the contents of an entire landfarm as an environmental solution for that determination.

Q. Okay. Now another thing, we also have, do we not, requirements that -- of monitoring of the contents of waste being placed into landfarms --

A. Yes.

Q. -- in Rule 53? Would that give us another means of seeing that we did not build a situation where it's

necessary to dig and haul a large area?

A. Yes.

Q. Based on these considerations, would -- what would be your recommendation regarding the bonding for landfarms?

A. No change to what we've proposed.

Q. Thank you. Now -- Well, let me ask just one more question. This is somewhat inconsistent, is it not, with the philosophy -- as Dr. Neeper pointed out, with the philosophy of full-cost bonding for waste --

A. Yes, it is, and I concede Dr. Neeper's point, and the apparent conflict in the language of the closure standards and the language of the bonding requirements.

Q. So bottom line, why do you continue to recommend that it be done this way?

A. Again, it was never intended -- it was not the OCD's intention to use complete disposal of all the contaminated soil of a landfarm as a remedy. Proper operation of a landfarm, per the current Rule 53, would allow the operator to remediate that soil to acceptable standards, acceptable closure standards, without digging and hauling it.

Q. Do you believe this is a practical solution?

A. I do.

Q. Thank you. Let me go on, then, to some of the

changes that we made. I believe you have a copy of the Division's May 17 -- or May 18 redline --

A. I do.

Q. -- in front of you. I will call your attention to page 4, 51.E. Would you describe the change that's made there, proposed there?

A. That was to address a specific concern that came out in testimony and to encompass, I think, what we're calling Rule 40, enforcement rule, and also include those type of operators, or those operators --

Q. Okay --

A. -- in this provision.

Q. -- under subsection D, subsection D lists a list of grounds, does it not, on which C-133 transport permits can be denied?

A. Correct.

Q. But there's nothing --

A. If such an operator who fell under Rule 40, the Rule 40 concept, already had a permit, the way the language was before would not allow us to suspend or revoke his particular permit.

Q. In other words, if an operator was not in compliance with Rule 40, they couldn't get a C-133 if they didn't have one --

A. Correct.

Q. -- under this Rule?

But we wouldn't be able to suspend it if they did have one?

A. Right.

Q. So that change -- the proposed change changes that?

A. Yes.

Q. Okay. Now let's look at H, subsection H, of Rule 53, on page 22 of the redline. Now you didn't testify concerning landfarms at all previously, did you?

A. That's correct.

Q. And Mr. von Gonten -- Has he gone on vacation?

A. Yes, he has.

Q. Lucky man.

A. Lucky guy.

(Laughter)

Q. Okay, so you get to fill in for him on this particular change.

Look at H.(1). We're now proposing to delete the provision of H.(2) that says an operator may operate only one active small landfarm per lease, correct?

A. I'm sorry, H.(1).(b)? Is that where you are?

Q. Well, first of all look at H.(2).(a).

A. Right.

Q. And that said an operator may operate only one

small landfarm per lease, and that's being deleted?

A. That's correct.

Q. Now would you read H.(1).(b), which is being added? Proposed to be added.

A. I have.

Q. Read it into the record, please?

A. Oh, I'm sorry. H.(1).(b), Limitation. An operator shall operate only one active small landfarm per governmental section at any time. No small landfarm shall be located more than one mile from the operator's nearest oil or gas well or other production facility.

Q. Now why did we decide to change from one per lease to one per section?

A. My understanding was that it was -- and this is a legal question, but I'll try to say as much as I can about it. The definition of a lease in New Mexico was rather unclear, and the reason for (1).(b) was to specifically address Dr. Neeper's concern that it would be concentrated and contiguous landfarms, thereby increasing the load for a particular area.

Q. Yeah. There's been testimony, has there not, in this proceeding, that if you have -- that contamination depends on the amount of load of contaminants put in a particular area?

A. Yes.

Q. And under that philosophy, if you have a lot of small loads in the same area, would that have the same effect as a big load in a particular area?

A. Right, our intent here was to limit that type of activity.

Q. Right. Getting back to the definition of a lease, you understand, do you not, that where there are multiple pools of hydrocarbon underlying a tract of land, that it's entirely possible that under the way we use that term in the OCD, that those could result in three or four leases covering the same area?

A. That's true.

Q. And those leases might have different boundaries?

A. That's correct.

Q. And so that makes it pretty difficult to write a definition that will accomplish what a lease means, as we use it in this agency?

A. That's my understanding.

Q. Okay. Now why did we put in this provision that they should be no more than one mile -- small landfarms should be no more than one mile from the operator's well or production facility?

A. No -- No more than one mile from --

Q. The second sentence of (b).(1) [*sic*], why was that put in there?

A. Again, to create -- My understanding of a small landfarm is that it was to create a specific area, specific to a particular, quote, unquote, release, and should not be used -- should not be used in lieu of centralized facilities, which are covered under a separate part of the Rule.

Q. Right. Wasn't the whole purpose of small landfarms to provide a place in the field to take contamination --

A. Yes.

Q. -- that occurred in the field?

A. Yes.

Q. Okay, thank you. Now I asked you this morning to look at our revisions in K and -- in subsection K on page 26 -- page 27 and 28 -- and I believe -- I don't recall if you were in the meeting. If you weren't in the meeting on that, then I'll recall Mr. Price for the limited purpose of explaining it. But do you recall, were you in the meeting at which the decision was made to make that revision in subsection K?

A. Let me read it, because that conversation only took place moments ago.

Q. Right.

A. I don't believe -- I was not in the meeting where that was discussed, but I'll attempt to answer your

question.

Q. Okay. Well, I think since you were not in the meeting you would not know the reasons why that was proposed, so I think I had better recall Mr. Price. It would be only for that purpose, so...

A. I concur wholeheartedly.

(Laughter)

MR. BROOKS: I'll pass the witness.

CHAIRMAN FESMIRE: Mr. Huffaker?

CROSS-EXAMINATION

BY MR. HUFFAKER:

Q. As to the one-small-landfarm-per-section issue, Mr. Martin, that doesn't provide any limit on the number of small landfarms an operator could operate, does it?

A. No.

Q. And as to the no small landfarm shall be located more than one mile from the operator's nearest well or other production facility, that doesn't provide any limit on where an operator might put contaminated soil, as long as it's near one of the operator's wells or production facilities, does it?

A. That sentence in itself does not.

Q. So there is no limit on the number of small landfarms an operator could establish in the state, and if an operator has many different locations for wells and

production in the state, there's no limit on where he could put small landfarms, is there?

A. Not in that section.

MR. HUFFAKER: All right, that's all I have.

CHAIRMAN FESMIRE: Mr. Carr?

MR. CARR: No questions.

CHAIRMAN FESMIRE: Mr. Hiser?

CROSS-EXAMINATION

BY MR. HISER:

Q. Mr. Martin, when you're talking about one mile, just for clarification, is that as the crow flies, or how are you determining that distance?

A. As the crow flies, even though we didn't use that language, yes.

Q. Okay, so essentially drawing a circle --

A. Radius, yes.

Q. Radius. And then is it not true that the sit- -- in response to Mr. Huffaker's question, is it not true that the siting restrictions would continue to apply to small landfarms?

A. That's correct.

MR. HISER: No further questions.

CHAIRMAN FESMIRE: Mr. Sugarman?

MR. SUGARMAN: Yes, we do have --

CHAIRMAN FESMIRE: Doctor?

MR. SUGARMAN: -- some questions, that will be propounded by Dr. Neeper.

CROSS-EXAMINATION

BY DR. NEEPER:

Q. Mr. Martin, do I understand correctly that in reference to the estimated costs of remediating a failed landfarm that I have made, you did not find those costs totally unreasonable; it was simply that you thought the industry might not be able to afford that kind of cost; is that correct?

A. I didn't say that your estimate was unreasonable; I think it's probably a pretty fair estimate, based on my knowledge. But based on the size of some landfarms, it would be cost-prohibitive on the operators of the landfarms.

Q. If it were cost-prohibitive on the landfarms, then I believe it was your testimony that you felt this would prevent the small operator from actually being in business; isn't that correct?

A. Correct.

Q. Then do you feel, in fact, that the State should, in effect, subsidize the operation of these conditions, rather than the industry itself, supporting the necessary assurance to satisfy the citizens that any failures can be remediated?

A. I'm not advocating government subsidies of any sort. My intent -- I think the Division's intent is not to overly limit the number of small operators, small landfarm operators, who can exist, now or in the future, so that the industry is not burdened by having a minimum -- a shortage of disposal facilities.

Q. But in the case of a failed facility, then, the burden for cleanup, if any, would fall to the well-plugging fund; is that not correct?

A. That would be -- that's correct, in the absence of a responsible party.

Q. You had mentioned my testimony in several places. Did you believe there was anything in my testimony that would have required a landfarm operator to bond the entire facility, rather than simply to bond whatever cell or cells might be active at any time?

A. No, I didn't, my -- and I may have a misunderstanding of your testimony. My understanding was that you were proposing to bond the entire facility.

Q. That was your impression?

A. That was my impression.

Q. You had implied that requiring this level of bonding, whatever that might be, whether it's per acre or for the whole facility, would be -- have a strong implication on a small business. What would be the

implication, then, if an inadequately bonded landfarm failed?

A. If an inadequately operated landfarm, a landfarm that was not operated under the operation requirements of the Rule, failed, and a responsible party did not exist anymore, then the State would have to assume that liability to clean up that landfarm.

Q. So the liability would fall back to the State?

A. It would fall back to the State. But even in that case, I doubt that -- I don't think that the State's -- the OCD's intention was for the State to go in there and dig and haul the contents either.

Q. But the statement of the Rule, does it not, implies if it fails sufficiently, dig-and-haul is the answer?

A. I agree, and I concede that point. There is an apparent conflict between the closure requirements language and the bonding requirement.

Q. Finally, two other questions. You are substituting, I believe, here for Mr. von Gonten, if we understood correctly.

A. Yes.

Q. Do you have any knowledge of why the re-vegetation standard was proposed at 70 percent of the surrounding background vegetation level, rather than 70

percent of the ground area, as had been discussed earlier this morning?

A. Based on my limited knowledge about the conversations, I believe that was only to address Commissioner Bailey's concern about the more reasonable -- proposing a more reasonable re-vegetation language than was in there previously.

Q. Very good. I will ask one question and then defer to counsel.

We have referred this morning in your testimony to Section K, which contains exceptions. One of the exceptions in the current paragraph (2) states that except in an emergency an operator shall apply for a permit modification in accordance with subsection C.

A. I'm sorry, where are you?

Q. This would be on page 28, at the top of the page.

A. Okay.

Q. What it is saying, am I correct, is that except in an emergency an operator could obtain a waiver or an exception through a hearing process?

A. Correct.

Q. Would -- since that hearing process is described -- as described in subsection C, would citizens of the State have access to that hearing process?

A. Yes, I believe so.

Q. Would citizens -- is it your understanding that citizens of the State would have standing in any adjudicatory hearing?

A. I don't know. I don't know the answer to that question.

DR. NEEPER: Thank you.

CHAIRMAN FESMIRE: Mr. Sugarman.

MR. SUGARMAN: And if I just -- one legal question, if I may.

CROSS-EXAMINATION

BY MR. SUGARMAN:

Q. Mr. Martin, based upon what you know of Dr. Neeper's testimony and how it's been described to you by others, is it -- do you understand that Dr. Neeper's testimony with respect to full cost bonding is that full cost bonding should only apply to open and active cells at landfarms?

A. That was not my original impression, but I'm getting that impression now from Dr. Neeper's question.

MR. SUGARMAN: Thank you.

CHAIRMAN FESMIRE: Commissioner Bailey?

COMMISSIONER BAILEY: I have no questions.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: Yeah, just a couple of questions.

EXAMINATION

BY COMMISSIONER OLSON:

Q. I want to clarify something I don't think really got -- maybe didn't clarify earlier. Maybe I just don't -- at least it hasn't been clear to me.

If I'm looking at page 22 on the limitation on small landfarms, does this -- are small landfarms able to be used for gathering systems for crude oil, the pipelines?

A. Spills at gathering systems?

Q. Yeah, because that's -- I know in the past, that's been a very common incident where small landfarms have been used for like pipeline spills, which are past primary separation.

A. Well, there -- we do have -- we have, I think, provisions in the Rule to cover onsite remediation or remediation plans covering specific incidents, which allows onsite landfarming of those soils, which will continue under a remediation plan, not under -- I don't believe under the C-137 process or the Rule 53 process. It would be covered under Rules 116 or Rule 19.

Am I answering your question -- am I understanding the question?

Q. Yeah, it seems to me that they'd still be operating a small landfarm for -- you know, at least as they had been in the past for crude oil spills on the

gathering systems, which are not exempt from RCRA Subtitle C. Those are non-exempt.

A. That's correct, there's nothing that precludes that from continuing, that I know of.

Q. Because it seems to me the way that -- the definition of a small landfarm works, then, those sites would have to be hauled to a commercial or a centralized facility, wouldn't be able to operate a small landfarm for those facilities.

A. A small landfarm in the context of Rule 53, or a small landfarm just in the common usage of small landfarm, like are being used currently under Rule 116; is that your question?

Q. Yeah, and in response to a 116 spill of crude oil from a gathering line?

A. I don't -- I'm not aware of anything that would prevent them from treating those soils just like they have in the past for those specific spills. Nothing in this Rule, I'm not aware of anything.

Q. And I guess --

A. The Rule -- remediation plan required under 116 or Rule 19, that requirement would still be in place, and onsite remediation of soils would still be an option under those plans --

Q. But --

A. -- even with this Rule, I believe.

Q. Right, but wouldn't that be -- that would be a small landfarm; that's, I guess, what I'm getting confused on.

A. Well, in the common parlance it would be a small landfarm, yeah --

Q. Right.

A. -- but I'm not -- I guess what I'm trying to do is draw a distinction between that and what we're calling a small landfarm in relation to Rule 53, which we -- where we formalize something called small landfarms in a rule, in a specific rule, other than 116 or 19.

Q. Okay, and I guess what -- I'm just getting confused. It seems to me that this would prohibit that type of a landfarm, then, for a crude oil -- that type of a crude oil spill, which is, I know, in pretty common use --

A. Yes, it is.

Q. -- on spills.

A. It is, and I don't think that -- If that's in there, I don't think that was the Division's intent to do that.

Q. Okay.

A. I think that we want to have that option still open under 116 and 19, for operators to do that if they so desire.

Q. Okay. And you work on landfarm sites, on the commercial and centralized facilities?

A. I'm trying to wean myself, but yes.

Q. Just how many are there, roughly, that are under 100 feet to groundwater? How many landfarms?

A. Under 100 feet?

Q. Yeah.

A. Majority.

Q. Majority of them? And do most of those have groundwater monitoring?

A. Most do not.

Q. Most do not. They mostly rely on the treatment zone --

A. Treatment zone monitoring.

Q. And that's the three feet underneath of the native soil?

A. Yes.

Q. How many of those have had problems with migration into the treatment zone?

A. None to my knowledge.

COMMISSIONER OLSON: Okay. I think that's all I have. Thanks.

CHAIRMAN FESMIRE: Commissioner Bailey, do you have a question?

COMMISSIONER BAILEY: Yes.

EXAMINATION

BY COMMISSIONER BAILEY:

Q. Going back to page 6, the definition of a small landfarm says that it remains active for a maximum of three years.

A. Yes.

Q. Starting when? You have no starting date for that three years.

A. That's correct.

Q. What would you --

A. Without language in here, my assumption would be from the date of approval of the permit, but it doesn't say that.

Q. It says small landfarm so it's just a registration --

A. Date of the receipt of the registration. We're still -- the C-137 --

MR. BROOKS: -- EZ.

THE WITNESS: -- used for these landfarms still need to be approved by the Division.

COMMISSIONER BAILEY: That's all.

EXAMINATION

BY CHAIRMAN FESMIRE:

Q. Ed, one of the things that -- one of the questions that I had, are small landfarms intended to have

more than one lift?

A. I don't think there's anything in there that prohibits them from having more than one lift. Over a three-year period it's arguable that they would not qualify for a second lift, but there's nothing in there that prohibits that.

Q. Okay. I guess what I'm saying, it's meant for the immediate cleanup of small spills, and it's limited to a relatively short duration?

A. Yes.

Q. Don't those conditions necessarily prohibit more than lift?

A. I would think so.

Q. Another thing you said that concerned me. I'm assuming that where an operator were operating a small landfarm under the TPH endpoint scenario and then went belly up or did something where the State had to step in. The State would have the option of perhaps continuing to operate that to the TPH endpoint, would they not?

A. Yes, they would.

Q. Do we want to get in that business?

A. Not particularly, but it would be an option open to us, rather than digging and hauling, which would be much more expensive.

CHAIRMAN FESMIRE: Okay. I have no further

questions, Mr. Brooks. Do you have anything else of this witness?

MR. BROOKS: Well, perhaps I should try to clarify the matter that was the subject of Commissioner Olson's examination.

FURTHER EXAMINATION

BY MR. BROOKS:

Q. Looking at the same page you were just called attention to, Mr. Martin, page 6, the definition of small landfarms appears as subparagraph (e) of paragraph (1) of subsection A, correct?

A. Correct.

Q. Would you read the first line of paragraph (1), as it appears in the redline?

A. Definitions relating to types of surface waste management facilities.

Q. Yeah, okay. Since a small landfarm is defined in a list of definitions that starts out, Definitions of types of surface waste management facilities, would that conclude you to -- would that lead you to the conclusion that a small landfarm, as defined in this Rule, is a type of surface -- quote, surface waste management facility?

A. That would lead me to believe that, yes.

Q. Okay. Then would yo go over to page 2 and -- go back to page 2, paragraph (10), the definition of surface

waste management facility.

A. Okay.

Q. Read the first sentence there, up to -- through the "except".

A. Surface waste management facility shall mean any facility that receives any oilfield waste for collection, disposal, evaporation, remediation, reclamation, treatment or storage, except...

Q. Okay. Then would you go down to item (f) and read item (f) under that, please?

A. A remediation conducted in accordance with a Division-approved abatement plan pursuant to 19.15.1.19 NMAC, a corrective action pursuant to 19.15.3.116 NMAC, or a corrective action of a non-reportable release.

Q. Okay. Taking that definition of surface waste management facility, would that lead you to conclude that a remediation conducted under Rule 116 was not in itself a surface waste management facility?

A. As defined by Rule 53, yes, I agree with that.

Q. And if it's not a surface waste management facility, would it then -- under Rule 53, would it then be correct to conclude that it's not a, quote, small landfarm under Rule 53?

A. That was our intent, yes, I agree.

MR. BROOKS: Thank you, pass the witness.

CHAIRMAN FESMIRE: Limited to that subject, any recross?

MR. HUFFAKER: No, sir.

MR. HISER: No, sir.

MR. CARR: No, sir.

MR. SUGARMAN: (Shakes head)

CHAIRMAN FESMIRE: Okay, let the record reflect that there was no recross, except for --

COMMISSIONER OLSON: I just --

CHAIRMAN FESMIRE: -- Commissioner Olson has a question.

COMMISSIONER OLSON: -- wanted to follow up on that.

FURTHER EXAMINATION

BY COMMISSIONER OLSON:

Q. I guess -- Maybe I'm just getting a little confused. The small landfarms are used for cleanup of spills, but then I guess what you're saying is that all spills are exempt from surface waste management facilities, so what materials actually go to a small landfarm?

A. We're not say- -- I don't believe we're saying that all spills are exempt. I'm saying that some spills may be addressed under Rule 116 and 19.

CHAIRMAN FESMIRE: As a remediation in place?

THE WITNESS: As a remediation in place.

CHAIRMAN FESMIRE: As opposed to hauling it to a small landfarm?

THE WITNESS: Correct, a small landfarm in the context of this Rule. Does that make sense?

Q. (By Commissioner Olson) Because I'm just thinking that most everything that's going to landfarms are spills, which are usually being cleaned up either under 116 or an abatement plan, so it seems like everything is exempt. So I don't see, except maybe for a pit closure, what would actually go to a -- There would be a lot of small landfarms out there that wouldn't be subject to the Rules, because that's -- most of the ones I'm familiar with are from leaks and spills?

A. They wouldn't be subjected to Rule 53?

Q. Right.

A. We have -- it's been my experience, and I'm not familiar with all of the remediation plans that -- our abatement plan -- but a fair number of them, we do have onsite remediation going, however I don't believe that a majority of the remediation plans that are ongoing.

In most cases, as far as Rule 116 and 19 plans go, most of that stuff is hauled away to a permit facility. There are very few, relatively speaking, that do any onsite remediation, although there are some.

So I guess -- There was a point there I had,

but --

(Laughter)

A. I guess the point is that both of those things should be able to continue. I mean, those types of remediations, onsite remediation, should be able to continue, and it was not the intent of the Division for Rule 53 to prevent that from happening.

Q. Yeah, I guess I'm just seeing -- it seems a little problematic to me, that it's seeming to me that all spills -- because almost the ones that I'm familiar with, everything is subject to Rule 116 and then is being cleaned up, and therefore they're all exempt. So I don't understand, I guess, outside of a pit closure, what would actually go to a small landfarm, be classified as that under Rule 53. So these -- That's my impression.

COMMISSIONER BAILEY: So you're saying that we don't need to have small landfarm rules at all?

Q. (By Commissioner Olson) Well, that's kind of what this is sounding like when I read that definition. That's at least my interpretation of it.

A. I believe the intent was to allow -- this was an industry -- as I recall, was an industry proposal to establish small landfarms as a formal type of operation within Rule 53, which would not have to be permitted but could only be registered.

The type of waste going to these types of facilities would not differ greatly from ones that are being remediated on a site. The prime difference is, if the landfarms that are being operated -- small landfarms, quote, unquote, being operated under Rule 116 and 19 are strictly for contaminated soil from that particular incident, whereas these landfarms, these small landfarms, could be used for multiple incidents of a particular operator, in a particular area. I think that was the intent of industry to -- when they proposed this.

There still might be a need for onsite remediation in certain cases. Again, that's in the minority of remediation plans, fairly small minority. And the existence of these small landfarms may preclude the necessity of having any onsite remediation but may not eliminate that. So you should have to have -- should be able to have both. If you have a spill that's not anywhere near a commercial facility or a small landfarm under Rule 53, you should still be allowed to remediate that onsite if you want -- if you need to.

Q. Well, I think I agree with you there, but I'm thinking of some spill sites that I used to work on, and they were quite large in terms of their size, I'd say even larger than the definition in here of a small landfarm. And then it seems to me that that wouldn't require getting

some type of landowner approval, which has always been a big issue with landowners at some sites, is if they have this huge landfarm coming in along the right-of-way, or even on their property at that point, possibly without their permission.

A. We don't address, to my knowledge, landowner approval in Rule 116 or 19.

Q. All right.

A. However, I have heard of some legal opinions that says that -- that say that landowners have some legal rights in those cases already, as to what can happen even on the right-of-way.

So it's -- I don't know whether it's going to be addressed in 116 or 19 when those are addressed, when those particular Rules are addressed, but there's nothing in there now that specifically says you have to have landowner approval, or even -- I'm not sure, but I think or even notification. I'm not sure about that part --

Q. Does that not --

A. -- approval.

Q. I guess if all those sites are outside of that, then there is no re-vegetation requirements and other things that apply; is that correct?

A. We have never, to my knowledge, ever approved a remediation plan that did not include some -- include re-

vegetation.

COMMISSIONER OLSON: Just seems a little problematic to me. That's all I have.

MR. BROOKS: I think -- Well, maybe I can get it clarified a little bit better, I'm not sure.

FURTHER EXAMINATION

BY MR. BROOKS:

Q. I think you expressed it fairly well in your last response, Mr. Martin. Is the purpose of a small landfarm primarily to provide a place in the vicinity of the field where leaks and spills can be -- where material from leaks and spills can be taken, but would be itself the site of the leak or the spill; is that correct?

A. That's my understanding.

Q. And it could be -- a small landfarm could receive leaks -- material from leaks or spills in different -- in more than one location, correct?

A. Correct.

Q. Whereas if you're remediating the leak or spill where it occurred, that would not be a small landfarm?

A. Not under the Rule 53 definition.

MR. BROOKS: Thank you.

CHAIRMAN FESMIRE: Any other questions of this witness?

Okay. Mr. Martin, thank you very much.

Mr. Brooks, do you have any other rebuttal witnesses?

MR. BROOKS: Yes, because of the point about subsection K that Mr. Martin is not familiar with, I want to recall Mr. Price.

CHAIRMAN FESMIRE: Okay. Mr. Price, you've been previously sworn?

MR. PRICE: Yes, Chairman, I have.

CHAIRMAN FESMIRE: Sworn at doesn't count.

MR. PRICE: Sir?

CHAIRMAN FESMIRE: Sworn at doesn't count.

(Laughter)

MR. PRICE: I have been sworn, sir.

CHAIRMAN FESMIRE: Okay.

WAYNE PRICE (Recalled),

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

DIRECT EXAMINATION

BY MR. BROOKS:

Q. Mr. Price, I call your attention to subsection K of proposed Rule 53 on pages 27 and 28.

A. All right.

Q. Do you recall the process by which we arrived at that -- at the proposed revisions in subsection K?

A. Yes, I do.

Q. Now our original proposal for subsection K, no one understood. Do you remember that?

A. That is correct, and Commissioner Olson had questioned Subsection K number (2).

Q. Yes, he was one of many people who didn't understand it. I was really disappointed to find that Mr. Huffaker says he doesn't understand the new provision. Would you explain the new proposal?

(Laughter)

A. Am I supposed to try to explain what Mr. Huffaker doesn't understand or --

(Laughter)

Q. Well, just explain the proposal. Maybe your explanation of it will be clearer than the Rule the way it's drafted.

A. Okay. Number (2) under K, let me just read what it was.

Q. Okay.

A. It says, Any Division approval specifically described in 19.15.2.53 NMAC that relates to a change in operations, closure or post-closure of a facility that is not specified in the facility's permit may be granted administratively, without public notice or hearing, unless otherwise specifically provided. If the Division denies any requested approval, the operator may file an

application for review for such denial through the Division hearing process. In such cases, the operator shall give notice of such application in accordance with paragraph (4), subsection C, 19.15.2.53.

Q. Now that's the proposal we're now withdrawing?

A. That's right. And I think what the real issue here is, is that it appears that administrative approval could have been granted without public notice, but yet it doesn't give any sort of definition or define whether that's a minor or a major modification, and that was a contention --

Q. Now is it your --

A. -- that -- I'm sorry, go ahead.

Q. I'm sorry.

A. Go ahead.

Q. Is it your philosophy in proposing the new version of subsection K that any request for an exception or waiver would be by permit modification?

A. That is correct.

Q. So anytime the operator wants an exception or waiver to anything in Rule 53, that would be a permit -- treated as a permit modification?

A. That is correct.

Q. Now it might be a major modification, or it might be a minor modification?

A. Correct.

Q. And if it's a major -- if it's a minor modification, it does not require public notice?

A. Correct.

Q. And of course if it doesn't require public notice, then there wouldn't be any occasion for a hearing unless it was today?

A. That is correct.

Q. But if it is a major modification, does it require public notice?

A. Yes, it does.

Q. And the procedure then would be the same as for filing the application?

A. Yes.

Q. Okay. Is that basically what we were trying to say in the rewrite of subsection K?

A. Yes.

Q. Thank you, that's all I have. Oh -- No, sorry.

Is there anything you wanted to add to Mr. Martin's explanation about small landfarms, or do you think it's now clear what --

A. No, I think --

MR. BROOKS: Okay --

THE WITNESS: -- we've cleared that up.

MR. BROOKS: -- pass the witness.

CHAIRMAN FESMIRE: Are you sure?

MR. BROOKS: I'm sure.

CHAIRMAN FESMIRE: Okay. Mr. Huffaker?

MR. HUFFAKER: Yes, I've got a couple questions.

CROSS-EXAMINATION

BY MR. HUFFAKER:

Q. Mr. Martin [*sic*], in the second -- look at the second sentence of new subsection K.(2) on page 28, and I direct your attention to the phrase, An operator requesting an exception or waiver. Do you see that language?

A. Yes.

Q. My question is this. Is that an exception or waiver to a permit condition, or an exception or waiver to any requirement of these Rules, or both?

A. Well, the way that reads, it would be a waiver or an exception to a requirement of Rule 53. That's the way it reads.

Q. Okay. Second question. The next sentence reads, If the requested modification is a major modification, the operator shall provide notice of such request in accordance with paragraph (4) of subsection C. Do you see that?

A. Yes.

Q. Does that mean that if someone determines the requested modification is not a major modification, then there will be no public notice?

A. That is correct.

MR. HUFFAKER: No further questions.

CHAIRMAN FESMIRE: Mr. Carr?

MR. CARR: No questions.

CHAIRMAN FESMIRE: Mr. Hiser?

MR. HISER: No questions.

CHAIRMAN FESMIRE: Mr. Sugarman?

MR. SUGARMAN: One or two questions.

CROSS-EXAMINATION

BY MR. SUGARMAN:

Q. In the -- Mr. Price, in the waiver and exception Rule, the new one that OCD has proposed to replace the old one, which you read, in the case that a hearing is held on a proposed major modification, does the Division have any position on -- as to who should have standing to participate in a public hearing, or request a public hearing? And if so, is that position embodied in this redraft?

A. It's my understanding, if it's a public hearing, that any member of the public could have standing, if it's pursuant to our Rules and Regulations on hearing procedures.

Q. And if the provisions of 19.15.2.53 expressly state or were construed by the Commission to mean that in proceedings of this -- of that adjudicatory nature, that

the public did not have standing to participate, would that be contrary to the intent of OCD in its redraft of this Rule?

A. That's really hinging upon a legal question that I'm a technical person, I may not be able to answer. However, I am going to attempt to answer that, and I want you to ask the question again so I fully understand what you're asking.

Q. Let me just lay a foundation for the question, and the question might become clearer. NMCCAW's position would be that with respect to a proposed major modification the public ought to have standing to participate in a hearing on that proposed major modification.

A. Correct.

Q. The question is, to your knowledge, does 19.15.2.53 give the public standing to participate in the adjudicatory proceedings that are contemplated in that section?

A. Yes.

Q. And so it is it the Division's intent -- as I believe you stated earlier, is it not, to allow the public to have standing to participate in a major modification proceeding?

A. Yes.

Q. The next question that I have refers to the

distinction between a major and a minor modification. Does the Division have any position, and if so, where is it stated in the Division's proposed Rule, as to whether or not a requested deviation from a standard that's established in the proposed Rule would be considered a minor modification or a major modification?

A. We -- Currently we would go by the current definition of what a major and a minor modification is.

Q. And is it the case that the deviation of a standard that is adopted when there is a final promulgation of this Rule might be considered a minor modification by the Division?

A. That's possible.

Q. If so, isn't it the case, then, that a deviation from a standard that's ultimately promulgated by this Rule might be a minor modification over which the public did not have a right to participate?

A. I understand your question now, and I need to revise my answer to you.

If it is a standard that's in the Rule, and if an operator requests that a standard be changed, that would be a major modification.

MR. SUGARMAN: Thank you. I have no further questions.

CHAIRMAN FESMIRE: Commissioner Bailey?

COMMISSIONER BAILEY: No.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: Just one question.

EXAMINATION

BY COMMISSIONER OLSON:

Q. Back to that issue of major and minor modification, where is that defined?

A. It's under our definitions.

Q. It's under the definitions?

A. Yes. Let's see if I can find it for you. It's under -- it's on page 6. It would be subsection A.(2).(i).

COMMISSIONER OLSON: All right, thanks. I'm getting forgetful.

CHAIRMAN FESMIRE: I have no questions. I'm assuming, Mr. Brooks, that yours are --

MR. BROOKS: Nothing further.

CHAIRMAN FESMIRE: Nothing further?

Mr. Price, thank you very much.

MR. PRICE: Thank you.

CHAIRMAN FESMIRE: Mr. Brooks, do you have any other witnesses in your rebuttal?

MR. BROOKS: No, your Honor, the Division closes.

CHAIRMAN FESMIRE: Okay. Mr. Huffaker, anything further, prior to closing?

MR. HUFFAKER: Nothing, Mr. Chairman.

CHAIRMAN FESMIRE: Okay. Mr. Carr --

MR. CARR: No, sir.

CHAIRMAN FESMIRE: -- Mr. Hiser?

MR. HISER: No.

CHAIRMAN FESMIRE: Mr. Sugarman, do you have anything --

MR. SUGARMAN: No, Mr. Chairman.

CHAIRMAN FESMIRE: -- you want to add?

Any of the Commissioners want to add anything?

COMMISSIONER BAILEY: No.

COMMISSIONER OLSON: No.

CHAIRMAN FESMIRE: Okay, at this time we're going to provide the opportunity for the public to make a comment on the record again. I understand that there's at least one party that wants to. Would you stand, identify yourself and who you represent and make your statement?

MS. FOSTER: Good morning, ladies and gentlemen. My name is Karin Foster. I'm the Director of Government Affairs for the Independent Petroleum Association of New Mexico. I just have a few points that I'd like to bring up to the Commission.

I have been here through the majority of the hearing, and I think that there's a couple of very important policy considerations that I would like to highlight for the Commission on behalf of small operators

in New Mexico.

The Independent Petroleum Association of New Mexico -- Could I actually move up? This is actually --

CHAIRMAN FESMIRE: Sure, and I apologize for the climate control in this room.

MS. FOSTER: I have a tendency to pace if I'm standing, so I'll sit.

The Independent Petroleum Association of New Mexico represents about 180 companies in New Mexico. The average size in terms of employees for our companies is about 25, so we're very small. The majority of our companies are here in New Mexico, and we generate quite a bit of money for the General Fund for New Mexico for the State Land Office and therefore for the children of New Mexico.

In terms of what I'd like to highlight for the Commission, the very important question is, why are we here? Why are we reviewing or creating Rule 53?

The OCC is responsible for the protection of water, the environment, safety and human health of the people of the State of New Mexico. And my point that I would like to highlight for you is that there is a great disparity in this Rule when you're trying to compare or create one Rule for landfills that could be up to 500 acres, and small registered landfarms that are only 2 acres

or, as the Rule now is currently written, 1400 cubic feet. Very small.

You heard a lot of science over the nine days, or the eight days, of testimony that we've had. And a lot of what's come out from the science is that the impact to the environment from a very large facility is going to be very different from that of a very small facility.

I would contend that we really need to have a different standard for a landfill versus a landfarm. We need to have a different rule for a landfill versus a landfarm.

The science that came out, we talked a lot about chlorides and the effect on groundwater. I think there was testimony that it took several hundred years for chlorides to actually seep down to groundwater. But it also depended on how large your surface area was. If you had a very large surface area and it's seeping down, there are different factors that could implicate the -- how quickly the chlorides and the toxins get down to the groundwater.

On a small landfarm, registered landfarm, two acres or less, it takes a long time for those constituents to get down to the groundwater, if at all. There was testimony that a lot of the potential toxins and things that could potentially be in crude oil and hydrocarbons wouldn't even make it to the groundwater because they would

end up ionizing with other items in the ground.

The other point that I'd like to highlight for you is that under your Rule, landfarms are temporary facilities. You only have them for a maximum of three years. And as Commissioner Bailey pointed out, it would be three years from a fixed date, presumably from the date of registration. The landfarm is a permanent facility, that is there *infinitum*. And therefore, the landfarm is the one that has the greatest danger of seepage to groundwater and danger to the environment. A small landfarm only being a temporary facility, it has much, much less potential danger.

We would also request that based on the science that came out, particularly on the landfarms, there was a couple of issues that are, I think, of concern to small operators, and one of them was the water issue. Small operators probably won't have access to the amounts of water that would be needed to achieve the bioremediation endpoint. Therefore, I think it was very well intentioned of the Commission or the Division to keep the dry landfarming option in the Rule, which small operators are most likely to end up using.

However, at the end of the three-year period, if we have not met your standards, then we would request that we could go to a bioremediation endpoint option and add

some water, because all the testimony that came out, all the science that came out, was that that speeds up the process and that creates a -- that we could actually achieve those endpoints without having to go through the huge expense of dig-and-haul.

We would also ask that -- There was testimony about EC levels. EC 4 was a number that Dr. Neeper relied upon and that our scientists also came up repeatedly. I would remind the Commission, though, that EC 4 is dependent -- has to be considered in response to also the background. If background is high -- for example, down in southeast New Mexico where we have the playa lakes and we have higher salt levels, you would end up having a natural background level that is higher than an EC 4. So a set standard of an EC 4 could potentially be something that we could never meet.

In terms of the closure requirements, again, the fixed three years that if we -- you know, we hit that date on the calendar, and automatically if we don't meet that standard we are required to dig and haul, really doesn't have any flexibility for small operators. If we are close to achieving that bioremediation endpoint, we should have the option -- to ask for the option to add some water or to re-do our abatement plans, so that we can add some water so that we can achieve that endpoint, instead of having to go

through the very expensive cost of dig-and-haul.

The financial assurance numbers. I would remind the Commission that the majority of my members who operate more than one well in New Mexico end up having a blanket bond. Now the blanket bonding procedure is something that a small operator, and all operators, are required to give all their finances, all their CPA-approved financial documents, to the bonding company. There are not very many bonding companies out there for oil and gas operators. In fact, I think there's only three. Those three companies are the only ones that we can go to a bond for.

So whether a bond is $200 or $200,000, you are not going to have a company violate that bond if they intend to keep on doing business in New Mexico. Okay? So the amount of the bond, really, to small operators should not be relevant. It is a bond, it is a financial assurance that you are requiring.

We have a blanket bond with the OCD in order to have oil and gas operations in this state anyway, and so if -- we would ask that, you know, since this is part of oil and gas operations, from the small operators' perspective, that we should come under the blanket bond. Okay? We should not have to post a separate bond for this procedure, because a bond is a bond. And if we violate our bond, we're out of business.

I should also point out to you, then, in terms of the bonding that we are required to do, because there are so few bonding companies out there and it is very difficult to get a bond, our companies are required to put up 100-percent collateral for a bond. So if you require an additional bond, that is another portion of our collateral that a small operator would have to put up to the bonding company.

Also, in response to Dr. Neeper's testimony or questioning, the amount of a bond really should be for the complete operation, if you're going to have it. Switching it to having it for a cell that is only a temporary cell and then if an operator is moving to another cell, whether this is for a landfill or for a small landfarm, in terms of a financial assurance requirement having it be only for a particular operating cell, as opposed to the whole facility, really doesn't make sense in terms of a financial assurance requirement for the OCD.

It also would be, frankly, an accounting nightmare for the OCD, because you'd have to determine whether a cell is operating or whether it's in a sleep mode, whether you're waiting for the bioremediation to occur. I mean, frankly, it would be extremely difficult for the OCD to keep track of that. And if you're going to have a bonding requirement, having a bonding requirement on

the facility really is what makes more sense.

IPANM would also ask for clarity in the Rule. And I think that the discussion that we just had with Commissioner Olson in terms of the confusion of what exactly is a landfarm highlights the problems that IPANM has with the Rule.

In the comments that I submitted to the Commission, one of my biggest things was, it was unclear whether we were supposed to landfarm all spills. If that is the case, as the testimony came out, that is clearly in conflict with the established Rules that the OCD has, Rule 116 and Rule 119 [*sic*].

Rule 116 -- I'm sorry, Rule -- Yes, 116 actually delineates the amount of the spill in terms of a barrel amount, and it also mandates that you have to have an abatement plan with the OCD.

In terms of a small operator using a small landfarm, a registered landfarm proceeding, my guess is it's going to be in the instance where that small -- that operator, oil and gas operator, decides to basically pick up all his spills and put them in one central cell. And if you make the requirements for a small registered landfarm so onerous, that is not going to happen. You're going to have small operators decide -- and it's their option under your Rules -- to remediate in place. And the abatement

plan is already there, and the system has already been set up, as you heard from the witness, Mr. Martin.

The small landfarm on lease, again, I would ask for flexibility. I understand that you have to have requirements, depth to groundwater and depth -- and distance to watercourses. That makes sense.

However, from a small operator's perspective where you're operating one well on a lease or two wells on a lease, okay, you're not going to have as much flexibility for depth to groundwater or distance to watercourse. And again, what is going to happen is, you're going to have small operators who are going to opt to bioremediate in place. And therefore you're not going to have -- Rule 53 is not going to come into play at all, because under 116 we'd decide to bioremediate in place. These are just considerations for the OCC to think about.

The public notice requirement for a small registered landfarm is unclear. It seems to imply that if there is so much as one person who complains about a small registered landfarm, that will automatically bump my operators into having to get a permit and go through the permitting process, which is again an administrative process, and it's expensive for small operators to go through.

So that the public notice provision, I would ask,

for small registered landfarms needs to be clarified. We don't want to end up having before the Commission every time that we -- for a hearing every time that we want to have a small registered landfarm. Again, what you're going to be doing if the regulations are too onerous is, you're going to have small operators that are going to bioremediate in place, spills.

Finally, the economics. Increased permitting costs, you're increasing your financial assurance, increasing your regulatory requirements, having to come before the hearing -- the OCC for a hearing every time you want to have an exception to your Rule, basically those costs get pushed through to the operators.

You'll increase the cost of operations for small operators because as the Rule is written, small landfarms is for the bioremediation -- or the remediation of hydrocarbon-contaminated soils. Everything else, we're going to have to dig -- we're going to have to haul. And we have to haul that to landfarms or potentially landfills. You increase the cost of regulation, you increase the cost of just operations. Those costs get passed through to the operators.

And again, it also obviously, as I'm sure you're very well aware of, it will have to do with supply and demand. Up north right now there is not a landfill for us

to bring our wastes to. So I don't know how far you expect our operators to go. Three hundred miles, is that reasonable to have to drive to a landfarm or a landfill? Or are you going to give us another option? Are we going to have to come before the OCC to get an exception to put these -- what you would determine to be wastes?

Again, I would just ask the Commission just to be mindful of what you're here for. You're responsible for the health and safety and the environment of the people of New Mexico, and the difference between a large landfill, which is in this Rule, versus a small landfarm, which is also in this Rule -- it will be very hard to create a consistent Rule. And again, IPA would ask that it get separated out and that we get put under another Rule, taken out entirely, because of the considerations and all the science that was presented to you over the last eight days.

Thank you for giving me the opportunity to make this statement.

CHAIRMAN FESMIRE: Thank you, Ms. Foster.

Anybody else?

COMMISSIONER OLSON: Can I ask a couple questions?

CHAIRMAN FESMIRE: Sure.

MS. FOSTER: Me?

COMMISSIONER OLSON: Yeah.

CHAIRMAN FESMIRE: Let the record reflect that the Rules do not provide for sworn answers.

(Laughter)

COMMISSIONER OLSON: I was just wondering, how many small landfarms do your constituents operate --

MS. FOSTER: Well, Commissioner --

COMMISSIONER OLSON: -- under this definition?

MS. FOSTER: Well, under Rule 53 none at this point. But the problem is, under your definition what is landfarming? Currently if you went out and asked my operators if they're landfarming, they would say yes because the common parlance out there, landfarming is remediating a spill in place.

So there aren't any folks out there that I'm aware of who actually have a registered landfarm at this point, in other words, that they've picked up their spills and they've brought them to a central cell.

In the interest of clarity, I mean, maybe you could even just change the definition in your Rule. Instead of calling it a small landfarm, call it a remediation cell or something. I mean, that would make things a lot clearer, because again, the operators are out there -- landfarming is a verb, it's not a noun, and landfarming is a certain process that you go out there and you till and you do what you have to do.

It's -- There is confusion in the Rule as written. And I think that the questions that you asked of these most recent witnesses definitely highlights that.

COMMISSIONER OLSON: Do you think, then, that the remediation standards or closure standards for spill sites should be different than a small landfarm?

MS. FOSTER: For a spill, it depends on the spill.

COMMISSIONER OLSON: Uh-huh.

MS. FOSTER: But to answer your question, my position would be that the bioremediation point is based on science, it's a very good option for operators, provided that our operators can have access to water. If they don't have access to water, then they need to go through the other process that you have in the Rule, which is basically what we call the dry landfarming.

However, if we don't achieve that endpoint that you have in the Rule, which is a set endpoint, which -- I would argue for a little bit more flexibility and for ranges, depending on where you are. If you're up in the northwest or in the southeast -- I mean, obviously, you know, you've been in the business, it's completely different geographic, climates, it's completely different formations, it's different. And to try and have a set rule for a closure standard, for small operators in particular,

is very difficult because they're not commercial, they're just doing this as part of operations.

So I would ask the Commission to give us a little bit more flexibility on the closure. Have it -- If you're going to have it be three years, then there has to be the option that if it wasn't working then you can change your watering plan so you can get out there and do your -- as Dr. Sublette said, your better -- best gardening practices.

If you're a small operator and you don't have access to water, you reach that three-year point and you realize that you're not going to reach the endpoint that's required by the OCC, we should be able to have some flexibility so that we don't have to go to the ultimate endpoint and the ultimate costly provision of dig-and-haul. We don't really want to have to do that.

COMMISSIONER OLSON: Because it just seems to me that if most things are done under spills, under Rule 116, there's no real standards that apply, even those may be rather large -- you know, landfarming activities is what I would call them. But it doesn't seem like the bioremediation endpoint standards would even really apply to those, because they would be exempt from the regulation.

MS. FOSTER: Well, as written Rule 116 doesn't have any bioremediation endpoint language in there, you're correct, Commissioner. But it does require abatement

plans, and it does require working with OCC staff in order to achieve a closure standard. Whatever standard they decide, I mean that's under Rule 116.

As it pertains to this Rule, the way that the small operators would then -- under this, would be if we decide to take our spills and put them into a cell, for economies of scale, for watering, for example, for labor, for whatever reasons. But that would be the instance of a small operator -- most of my guys -- would end up coming under this Rule, would be if we decide to basically pick up our spills.

COMMISSIONER OLSON: Uh-huh. Okay, that's all.

CHAIRMAN FESMIRE: Thank you, Ms. Foster.

MS. FOSTER: Thank you, sir.

MR. BROOKS: Mr. Chairman, I would like to request permission to ask Ms. Foster one question, because I would like to address it in my closing statement, and since I'm not sure what the basis of her concern was, I would like to clarify what it is.

CHAIRMAN FESMIRE: Ms. Foster, would that be acceptable to you?

MS. FOSTER: Sure.

CHAIRMAN FESMIRE: Mr. Brooks?

MR. BROOKS: Ms. Foster, you said that your interpretation of the Rule was that if anyone objected to

the establishment of a small landfarm that you would then have to go to a permitting procedure, and that's not my construction of the Rule. My concern is, what is it on the Rule on which you base that? From what portion of the Rule does that concern arise?

MS. FOSTER: I would have to look at the Rule, but I believe it would be Section H, specifically talking about small landfarms, and the registration process.

MR. BROOKS: But you don't -- you haven't focused on a particular provision of the Rule that raises that concern?

MS. FOSTER: No, I couldn't cite it to you.

MR. BROOKS: Okay, thank you.

MS. FOSTER: Okay?

CHAIRMAN FESMIRE: Anyone else?

Again, thank you, Ms. Foster.

MS. FOSTER: Thank you.

CHAIRMAN FESMIRE: Mr. Brooks, I'm going to give you the option. It's going to get awfully noisy in here in just a few minutes. How long do you think your close will take?

MR. BROOKS: Mr. Chairman, I don't -- I haven't prepared it well enough to be able to tell you exactly, but I don't think -- I don't anticipate a really long, detailed closing statement, so I'm guessing not more than about 30

minutes, even if I get strung out. But that's -- My preference would be to take the lunch break first, for the reason that you stated and also because it would give me an opportunity to organize my thoughts. That's -- 30 minutes is the outside estimate, I think, of what I would take.

CHAIRMAN FESMIRE: Mr. Huffaker, do you anticipate -- You're going to give one today, and then Mr. Marsh is going to give a statement?

MR. HUFFAKER: That's our present intention.

CHAIRMAN FESMIRE: Okay.

MR. HUFFAKER: And I will definitely give one today. Mr. Marsh's --

CHAIRMAN FESMIRE: How long --

MR. HUFFAKER: -- desire --

CHAIRMAN FESMIRE: -- will that take?

MR. HUFFAKER: -- is subject to some change, but --

CHAIRMAN FESMIRE: Okay.

MR. HUFFAKER: -- not at this moment.

CHAIRMAN FESMIRE: How long do you think it will take?

MR. HUFFAKER: Some things this morning made it shorter and some made it longer. I would guess 30 to 45 minutes.

CHAIRMAN FESMIRE: Mr. Carr, how long do you

anticipate taking?

MR. CARR: Mr. Chairman, Mr. Hiser and I are going to split our closing. I'm going to address a couple of legal points. I think that will probably take 10 minutes, and Mr. Hiser will probably take half an hour.

CHAIRMAN FESMIRE: So you're talking 30 to 40 minutes?

MR. HISER: Yeah, probably in the 45 --

CHAIRMAN FESMIRE: Thirty to -- say 45 minutes.

Mr. Sugarman, Dr. Neeper --

MR. SUGARMAN: Mr. Chairman, I am going to be making a brief closing statement on behalf of NMCCAW. Dr. Neeper has an appointment that he has to keep at 12:30 this afternoon. It's going to take him out of this proceeding for the remainder of the afternoon.

If possible -- I see that we're sort of heading towards a lunch break and closing statements after the lunch hour right now, and NMCCAW, with the Commission's indulgence, would propose that we do things slightly out of order and that I present NMCCAW's closing statement right now so that Dr. Neeper could be present for that closing statement, which would be of great assistance to us, and --

CHAIRMAN FESMIRE: Prior to the proponent's closing statement?

MR. SUGARMAN: Prior to the -- It's slightly out

of order, but it's the way that we would propose to proceed, if the Commission is amenable to that, just so that Dr. Neeper can be present.

(Off the record)

CHAIRMAN FESMIRE: How long do you think it would take?

MR. SUGARMAN: I don't think it will take longer than 10 minutes.

CHAIRMAN FESMIRE: Okay. Commissioner Olson has suggested that we give you the option of presenting orals today or written closing statements at the time, but I'm assuming, since you've gone to the effort of preparing it, that oral closing statements is probably going to be the preference; is that correct?

MR. HUFFAKER: For all of us?

CHAIRMAN FESMIRE: Yeah.

MR. HUFFAKER: Yeah, I think I'd like the opportunity to do both.

CHAIRMAN FESMIRE: Okay. Why don't we go ahead and let Mr. Sugarman make his 10-minute closing statement? Then we'll break for lunch and we'll start with Mr. Brooks at -- an hour after we break for lunch? Okay?

Mr. Sugarman?

MR. SUGARMAN: May I sit right here at the witness table?

CHAIRMAN FESMIRE: Yes, sir.

MR. SUGARMAN: Mr. Chairman, Commissioner Bailey, Commissioner Olson, NMCCAW, New Mexico Citizens for Clean Air and Water, has presented many suggested changes to Rule 53 in our testimony and in the proposed findings that we will be submitting to the Commission today in accordance with the Commission's instructions.

Of these many changes, we want to highlight five broad choices that the Commission is going to have to make, and these are choices that we believe will influence the future of the landscape and the resources of the State. I'll tick through them one by one.

First, NMCCAW believes that the Rule should not allow administrative exceptions to standards that are promulgated in the Rule and prescribed procedures without an opportunity for a hearing that is open to participation by any person. We're concerned that administrative exceptions can form precedents which will become *de facto* revisions of the Rule. If exceptions to standards and prescribed processes can be granted at will without an opportunity for public hearing, the Rule becomes little more than unenforceable guidance.

In effect, what we're saying is that rules adopted through a rulemaking procedure such as this shouldn't be altered without the possibility of public

review and participation by all persons.

We've prepared suggested language to cover such exceptions in Section K of the Rule in the redline strikeout which we'll be submitting to the Commission and the other parties today.

Number two, the treatment zone and vadose zone closure standards for chloride should be 500 milligrams per kilogram or EC 4 millimhos per centimeter. Explanation: The landfarm should be treatment areas, not disposal areas for harmful amounts of salt. When a landfarm is closed, its opportunities for future use should not be prejudiced by the prior activity of landfarming.

Although scientific tests show that some plants survive at a chloride concentration of 1000 milligrams per kilogram, that is not true for all plants. Furthermore, we note that most tests for chloride sensitivity of plants were done with well-watered soils. It is the chloride concentration in the pore water of the soil that most significantly affects plants.

We point out that for a given measure of chloride content per mass of soil -- that is, for a particular milligram per kilogram -- the chloride concentration in the pore water of a typical dry New Mexico soil might be more than three times the concentration than the pore water of a moist agricultural soil. Accordingly, the New Mexico

standard for chloride concentration per unit soil mass should be even more conservative than the standards and locations with greater rainfall and moister soils. As we have seen, those standards and recommendations often specify a maximum EC value of 4, which for some soils corresponds to a chloride content of approximately 500 milligrams per kilogram.

Number three, financial assurances for landfarms should be established according to the proposed treatment area that is active at any one time. This doesn't mean that a new bond will have to be acquired for each time a new cell is opened. What it means is that a bond should be -- an adequate bond should be acquired to cover all contemplated use of the facility over its life and that the bond should cover the active cell. That bond should be adequate to cover removal of treated material, disposal and re-vegetation.

Paragraph (1).(i) of subsection C of Rule 53 makes it clear that it is OCD's intent that the estimate of closure costs should be based on the costs needed to remove all wastes and re-vegetate the area.

Rule C.(5).(b) asserts that if the OCD does not agree with the estimated closure costs supplied by an applicant for a commercial facility, then the Division shall determine the estimated costs.

Thus OCD's proposed Rule contemplates that a permit application will clearly state a cost estimate. However, the proposed Rule offers a fixed financial assurance for centralized facilities, and the $25,000 minimum amount specified for commercial facilities strongly suggests that OCD does not intend to require the level of financial assurance to cover the closure specified method.

As Dr. Neeper explained in his testimony, an acre of filled landfarm may contain as much as 3226 cubic yards of waste. The minimal assurance of the proposed Rule would cover restoration of a 1-acre landfarm, if the treatment zone could be removed and disposed, for $7.75 per cubic yard, and if the re-vegetation were free.

Thus, it is evident that the proposed financial assurance is far smaller than the removal and restoration cost of even one cell of a typical landfarm. The operator presents his cost estimate as part of his plan when he submits his application that contains the closure plan, so an operator who can arrange low closure costs will not be required to establish an arbitrarily large assurance. We simply request that proper financial assurance be required so that restoration does not fall to the citizens of the State or become neglected, as is the case on our many legacy sites.

Number four, legal and physical access to water

for landfarms using the bioremediation endpoint must be required. Expert testimony has shown that achievement of the bioremediation endpoint with life-supporting soils requires proper maintenance of moisture in the treated material. This is like gardening, as Dr. Neeper just pointed out, which on most New Mexico irrigated land requires several acre feet of water per acre per year.

Demonstration of legal access to the required water and demonstration that the water is physically available, wet and available at the site, must be required as part of the permitting process.

OCD should not regard the availability of water as only the State Engineer's concern, any more than it would regard the improper dumping of produced water along a road as only the county's concern.

OCD is the permitting agent, and it has the responsibility to assure that the resources needed for compliance are available to its permittees. New Mexico is a state with scarce water resources, as Commissioner Olson pointed out. The fact of the matter, however, is that bioremediation landfarming requires adequate water. And without assurances that an operator has both legal and physical access to that water, bioremediation landfarming is simply not technically feasible.

Number five, it is important to revise the

proposed sampling scheme for landfarms. The proposed Rule specifies sampling at only four locations in an undefined, arbitrarily large area.

We suggest doubling the interval between sampling events, because remediation progresses slowly and the transport of contaminants into the vadose zone also usually progresses slowly. And in return, the operator could obtain twice as many samples, thereby obtaining better coverage. NMCCAW suggests obtaining eight samples per cell.

Samples in the vadose zone beneath a landfarm are intended to assure that contaminants do not infiltrate from the treated material into the underlying ground. However, the Rule as proposed would allow sampling at a depth of four feet beneath the treated material. By the time contaminants reach a depth of four feet, a large volume of soil would be contaminated. The financial assurance would probably not cover removal of such a volume. Therefore we suggest instead sampling at two feet beneath the treated material, but comparing the sample tests with closure requirements and not with background.

The background values will probably have large variance, as will the sampled values. Whether a given sample exceeds background will be a very arguable question. In our philosophy, the closure standard that is clean

enough for surface material is clean enough for the first two feet of soil. If it is not, then the wrong standard has been set.

Organic vapors and perhaps some chloride may temporarily invade the near surface soil underlying the treated zone. These contaminants move into ground and back out again. Their presence would trigger a false alarm if the sampling were compared to background, but would merely serve as a cautionary warning if the sampling were compared against closure conditions, as NMCCAW suggests.

Finally, it may be argued that an operator cannot reliably locate a depth as little as two feet beneath the treated material, but an operator should know the depth of treated material. He could, for example, place cement-block monuments at the edge of a cell to mark the depth of material. A hand-coring tool should provide sufficient accuracy.

However, if sampling is compared against closure conditions, it is not crucial that the operator know the sampling depth exactly. Sampling at the 2-foot depth and comparing the sampled concentrations with the required closure conditions will provide early warnings of release to the vadose zone while allowing a meaningful and reliable comparison with a reasonable standard. We believe the operators would, and should, prefer to compare samples

against closure requirements than to compare against the less well defined background values.

Those are our five main points.

And finally, I note that Dr. Neeper would like me to convey to the Commission his appreciation for the opportunity to have participated in these proceedings, and also we have great hopes for this groundbreaking Rule in New Mexico.

Thank you.

CHAIRMAN FESMIRE: Okay, with that we will adjourn until one o'clock this afternoon, at which time Mr. Brooks will begin with his closing statement.

Thank you all.

(Thereupon, a recess was taken at 11:56 a.m.)

(The following proceedings had at 1:05 p.m.)

CHAIRMAN FESMIRE: Let's go back on the record in Cause Number 13,586. Let the record reflect that it's 1:05 p.m., all Commissioners are present, and there's a quorum present.

I believe, Mr. Brooks, you were about ready to begin your closing?

MR. BROOKS: That's correct, Mr. Chairman.

Mr. Chairman, honorable Commissioners, I'm going to be hopefully fairly brief in this closing statement, because it is not my intention to go through this Rule

provision by provision. I believe that the Division's witnesses have done that, and it's a fairly technical Rule, and they're much more capable of explaining it than I am. If the Division has questions that are appropriate for an attorney, I'll be happy to attempt to address them.

There are a few legal points that I want to make, and then I want to hit a few high spots in the Rule.

First of all, a question has been raised about the landfarm -- well, it's not specific to landfarm -- a question has been -- Let me back up, let me start over.

A question has been raised about the waste acceptance criteria for surface waste management facilities, because the existing Rule 711 contains a provision that was actually adopted about three years ago, which authorizes the acceptance of non-oilfield waste under certain conditions. Now I'm not referring to the one about acceptance of non-oilfield waste on order of the Department of Public Safety, which -- that is continued in the new Rule, proposed Rule 53. We are assuming that the Department of Public Safety has the authority to order us to do that and to order their facilities -- or permitted facilities to do that.

The concern is whether the provision that was adopted about three years ago that in a fairly vaguely described way allows certain non-oilfield waste to be

accepted at oilfield waste management -- surface waste management facilities. The Division proposes to repeal that Rule, and the reason for our doing so is that we believe that the Division and the Commission do not have the power or the jurisdiction to permit that type of activity.

The authority that we have over waste disposal is based on subdivisions (21) and (22) of Section 70-2-12.B of the New Mexico Statutes, which is the laundry list of powers of the Oil Conservation Commission. And those two provisions give us the power to regulate the disposition of non-domestic wastes, in the case of (21) resulting from oil and gas production activities and in the case of (22) resulting from oil and gas downstream activities.

It would be our construction of those provisions that they do not authorize the Division to -- or the Commission to adopt any rules concerning wastes that are not from either production activities or oil and gas industry downstream activities, and therefore we believe that the Commission acted improvidently when it adopted that amendment to Rule 711 several years ago and we should now correct that, repealing the authorization for facilities permitted by this Division to accept waste that is not from oilfield sources -- from oil and gas industry sources.

The second point I would like to address has to do with the procedures by which the Commission will proceed from here. And I recognize that there is a great need to get this Rule in place expeditiously, and it's not limited to the fact -- and this is something in our draft this morning that my witnesses did not discuss, because I thought it was primarily a legal issue.

But if you look at page 28 of the redline you will find we have added a transitional provision in subsection L, paragraph (3), which provides that permits filed prior to May 18th, 2006, will be processed in accordance with the existing Rule -- and there are several of those -- but permits filed after that date will be processed according to the new Rule.

The reason we said May 18th was because we knew we were going to promulgate this revision on May the 18th, and we wanted to do something that would preclude people from -- when they saw the Division's final version of the promulgated rule -- from strategically deciding, well, let's go in now and get our permit on file before the new Rule becomes effective, so we can get the benefit of the old Rule. There's no precedent that I know of for doing this in Oil Conservation Division rulemaking, but there's certainly a precedent -- legislation. But anyway, that's just another reason why we need to get the Rule finalized

and adopted quickly.

However, despite the need to get the Rule finalized and adopted quickly I would suggest that the Commission consider, once the Commission finalized the changes that it wants to make, promulgating or announcing the position that it takes and making the draft available to -- making the final draft available to the public and extending the time for public comment, before the Commission finally adopts the Rule.

The reason I am suggesting that specifically is a legal one, because in another proceeding in which I am involved counsel has taken the legal position that the Rules of the Commission limit the Commission's flexibility in adopting proposed rules to either accepting or rejecting pieces, bits and pieces, taken from the proposals made by it and would even advance that back to saying that the Commission could not adopt anything that was not in the proposal published on the last notice date 20 days before the commencement of the hearing.

I do not personally agree with position. Unfortunately, there is not a lot of authority defining those matters in New Mexico. There is a lot of authority in the federal system. It's not totally definitive, but the big question is whether it actually applies or not, since it deals with the construing of federal statute.

I believe that if the Commission were to give the public a further opportunity to comment before it adopted this Rule that has numerous changes in it -- or I think probably will have numerous changes in it that came up because of things that arose at the hearing, if they were to give the public a further opportunity to comment on the final draft and consider those comments before finally adopting the Rule, that we might well be more likely -- or it would be less likely that the Rule would be vulnerable to judicial challenge. I suggest that the Commission consult Commission counsel on that issue.

Okay. Now let me -- Well, there's one other legal point in this Rule, and this was raised by the witness, Ms. Pérez, the witness for NMOGA, and this has to do with the provision in the Rule that says that in certain circumstances bond forfeitures will go into the Oil and Gas Reclamation Fund.

Now Mr. Chairman, honorable Commissioners, I think it's almost incontestable that the Commission does not have the authority by Rule to prescribe into what fund State funds will be deposited, and I believe that because there is a statute that says that all funds deposited to the State Treasury that are not otherwise provided by law will go into the general fund.

I do believe, however, that bond forfeitures can

go into the Oil and Gas Reclamation Fund. Section 70-2-14 provides, in subsection D, All forfeitures shall be deposited in the State Treasury in the Oil and Gas Reclamation Fund.

Now one might argue, of course, that that sentence applies only to forfeitures of bonds that are provided for in 70-2-14. I disagree, because 70-2-14.C, which immediately precedes the sentence I just read, says, When any financial assurance is forfeited pursuant to provisions of the Oil and Gas Act, 70-2-1 NMSA 1978, or rules promulgated pursuant to that Act, the Director of the Oil Conservation Division shall give notice to the Attorney General, who shall collect the forfeiture without delay.

And it seems to me that if you read those two provisions together, it is in effect saying that any forfeitures provided for by the Oil and Gas Act or rules adopted pursuant to the Oil and Gas Act will be deposited in the Oil and Gas Conservation Fund.

Now there are two courses of action the Commission can take on this, and I'm really -- once again, I suggest you consult Commission counsel on this.

One would be to leave the Rule as the Division has proposed it, which -- we provide that these forfeitures will go into the Oil and Gas Conservation Fund, which is valid, of course, in my judgment, only if this statute

means what I think it means.

The other would be to delete that sentence altogether and simply rely on the statute itself. And in a sense that might be the more prudent course, because then the statute could not be challenged on the basis that it includes a provision that is not in the -- that is not authorized -- not within the authority of the Commission to do by rule.

Now there is one thing I think the Commission cannot do, and that is make any provision for the disposition of those funds other than depositing them in the Oil and Gas Conservation Fund, because my belief is that there are two possibilities.

One is that 70-2-14 means what I think it means, and those forfeitures will go into the Oil and Gas Reclamation Fund by virtue of that statute.

The other possibility is that it doesn't mean that, and in that case the fallback is the across-the-board statute that says that all State funds go into the General Fund unless otherwise provided. And it would not be within the Oil Conservation Commission's power, in my judgment, to make any other disposition of those funds. So I leave you with that thought.

Now let me hit a few high points in the Rule.

The application and review procedures are not in

much controversy in this proceeding. We have in our redline suggested one change which was suggested in the testimony of Mr. Martin at the original hearing, and that is that we cut -- we eliminate the provision for two publications. And we believe that will save some money to the applicant without impairing the public's ability to comment, since the public will have the ability to comment at the draft permit stage, which is when they will be able to make the most focused comments.

Other than that, I'm not going to say anything about subsections C and D. And I'm really not going to say anything about subsection E, the general operating provisions, because there's very little in there that is not either in the present Rule or in the present guidelines.

With regard to subsection F, which deals with landfills, there is really only one point in controversy, and that is the gas safety management plan. And that was extensively discussed by our expert, Mr. Chavez, and also by the expert that was called on behalf of Controlled Recovery.

We believe that the Rule does not really take a position on whether or not -- on what extent of gas safety precautions are needed in oil and gas landfills. And we believe that if you adopt this Rule as the Division has

proposed it, it will be entirely possible for a landfill permit applicant to file a gas safety management plan, the thrust of which is to demonstrate why -- or -- a gas safety management plan, the thrust of which is to demonstrate why further gas safety procedures and structures are not required, and if they make a convincing technical case, that the Division can approve it on that basis, since the further gas safety precautions are required only if they're provided in the gas safety management plan that is written by the applicant or by law, which would be by federal law or some other state law or some municipal ordinance.

Of course, if their demonstration that they don't have a gas problem and won't have a gas problem is not convincing to the Division staff at the time of the permit application, then it remains possible for the Division staff to reject their gas safety management plan and require further precautions.

I believe the present Rule gives the Division the flexibility to deal with the concerns that may exist about gas accumulation in the landfill, without taking a prescriptive position that any particular level of precautions will be required, and I believe that that is the best position for the Commission to take, given that it appears to me the testimony -- the cumulative effect of the testimony on that subject is not really sufficient to show

whether or not there are going to be gas-accumulation problems in oil and gas waste landfills as a general proposition.

This brings us to the portions of the Rule which are of greatest controversy, and that is subsections G and H, dealing with landfarms.

Now we would like to point out to the Commission that of the numbers that we have given -- and there are a lot of numbers in this Rule -- some are the subject of rigorous technical justification, some are essentially policy-driven. We have articulated a policy which we seek to serve by putting a numerical limit in the Rule, but the numerical limit itself is not rigorously justified in that it could be a little higher or it could be a little lower.

In the case of the policy-driven numbers, I believe the Commission is the policy maker, and it would be appropriate for the Commission to choose numbers that it thinks best. We have given you our best judgment in the numbers we have recommended, but the concept is still viable if the Commission thinks the numbers should be tweaked one way or the other.

Now let me point out some -- where I think the distinction. I believe the 1000-p.p.m. chloride that we have come to is a rigorously justified number, based on Mr. Price's testimony. And while Dr. Neeper's testimony

indicated that a lower number might serve some purposes, I believe Mr. Price's testimony is sufficient to indicate that -- in an overall sense, that as a benchmark figure to be used generally across the State of New Mexico, except where local conditions require otherwise, the 1000-parts-per-million figure will be protective of both groundwater and surface concerns.

So we would strongly urge -- And I'll go a step further because with regard to small landfarms, industry is strongly urging you to take a smaller -- a larger chloride number than 1000 parts per million. We believe that's inappropriate because we know that small landfarms are potentially numerous. OCD has no control over the number, and we know there will be cumulative effects.

It is true, we have not rigorously studied those cumulative effects, but industry's testimony -- industry's evidence gives you, in my opinion, no light upon the extent to which those cumulative effects are a concern. And we believe as a cautionary measure against those cumulative effects, you should not raise that chloride limit, even though for each particular small landfarm in isolation you are dealing with a smaller mass load of chlorides.

There is another reason why I believe you should not tinker with that number in small landfarms, and that is because, as I demonstrated once again this morning, I

believe, through Dr. Neeper's testimony with regard to the charts about seed germination and -- actually, that wasn't about seed germination, it was about yield, plant yields. As you go up above the 1000 level to the 2000 level recommended by industry, you're getting into a range where you're getting into a range where you're getting above 50 percent on that chart -- where you're getting below 50 percent on that chart in terms of your crop yields on the species that were tested.

And I know the Commission may feel -- and Commissioner Bailey certainly has articulated that -- that none of the presentations are specifically focused in terms of the particular types of plants that we're dealing with in southern New Mexico, and I believe that there's a degree of justice to that. But at the same time, the Commission must make its decision based on the evidence that it has, and I believe that the evidence shows that in terms of soil protection we're getting on very shaky ground if we go -- if we raise that 1000 number for chloride. So we strongly urge the Commission to stick with that number.

Now when we get into the numbers for TPH, which is 500/1000 -- I'll call it 500/1000; it's 500 for diesel range organics, and it's 1000 for total petroleum hydrocarbons -- and I knew nothing about what those meant when we started this proceeding, and I still don't know

much, but the honorable Commissioners probably know more than I do, and certainly you have the testimony on record which should be very helpful on this.

This number is one of those policy-driven numbers. There are reasons why we believe that the residual TPH in a landfarm that is to be closed without removal of the contaminated soils should be limited, and -- There are two reasons. One is soil effects, which Dr. Neeper's testimony pointed out, although we hadn't gone into that, that the hydrophobicity problem could actually occur at levels -- and had in some studies occurred at levels considerably -- TPH levels, considerably below those at which Dr. Sublette had identified it. So that's a serious concern.

And of course the other one is the fact that if you allow very high residual hydrocarbon levels to remain in place one might say you're paving the state with these asphaltines. And we believe that just from an aesthetic standpoint and environmental concern, which you have every right to take into consideration, that that is not a desirable result.

While we believe that that policy is clearly articulated and supported by the evidence, we recognize that there's no rigorous justification for the particular level that we chose. And you do have before you the

evidence of the field studies that the OCD has done and the results that have been achieved in New Mexico. And I suggest that you take that figure -- take that evidence and evaluate our recommendation against it, and if you believe that that number should be tweaked, then that is a policy judgment the Commission should make, but we stand by or recommendation.

Once again, the 80 percent -- the provision in -- the bioremediation option provision of paragraph (8) of subsection G -- which does not apply to landfarms that do not elect the bioremediation endpoint; it only applies if they're following the bioremediation endpoint approach so that they do not have to reach the endpoint TPH benchmark standard that's prescribed in the Rule -- then we have recommended that they be required to show an 80-percent reduction in TPH concentration in order to be able to take advantage of that option.

Again, this is one of those policy-driven numbers, and the policy here is two things.

First, it's the residual in the landfarm. And I believe Mr. Hiser asked one of my witnesses if there was any other reason why that was adopted. And of course there is one other reason, and that reason is that the bioremediation endpoint provision gives the operator, under our proposal, an option whereby he can close the landfarm

in place at a considerably higher TPH level than we would otherwise allow. In fact, our proposal, it's unlimited. I understand industry is agreeable to a limitation of 1 percent, but that's not in our proposal.

We would not want the bioremediation endpoint provision to become an excuse to allow operators to do surface disposal of wastes that were not susceptible of substantial remediation by that process, and that is another reason why we adopted the 80-percent provision.

We would strongly recommend that the Commission look at that subject. And once again, if the Commission wants to tweak those numbers, that 80-percent number, based on the evidence that's presented, then that's a policy judgment the Commission will have to make. Once again, we stand by our 80-percent rate, but we -- figure, but we do recognize that it's essentially a policy-driven figure.

Now there has been some talk about the total petroleum hydrocarbon loading limitation for 50,000 parts per millon for waste acceptance at a landfarm. And once again this applies only to those electing the bioremediation endpoint standard. And this kind of goes in line with the bonding provisions, which I'll talk about in a minute, because if we have rigorous waste acceptance criteria that tend to ensure that we will get an adequate result and the landfarm can be closed in place, then we

have a greater justification for not requiring the very large bonds which would be required under Dr. Neeper's calculations.

So basically, once, again, we stand by our total petroleum hydrocarbon loading limitation because we believe that it gives us some assurance that the bioremediation endpoint will be achieved at a tolerable level for closure.

Those are the main issues that I have identified under the landfarms.

The industry has proposed what they call Tier 2 landfarms, which will have more lenient standards than the regular permitted landfarms, more lenient from the point of view of what they can accept and how dirty they can leave it at closure. We do not disagree with the proposition that there are areas in the state where those looser standards may be appropriate, but we believe that is adequately taken care of by the exception provisions in the Rule, and we do not recommend that any additional category be adopted; in fact, we strongly recommend that it not be adopted.

With regard to the small landfarms, another one of those policy-driven numbers I was talking about is the 1400-cubic-yard-maximum limitation on small landfarms. We certainly believe there should be a limitation, and we believe it should be a small one. Because we will have no

control over the number of small landfarms and minimal control over their location, we believe their size should be limited so that they do not become a blot on the landscape and so that they do not have large cumulative effects.

But the 1400 -- bottom line, the 1400-square-yard -- or -cubic-yard number was adopted because it is in the present Rule, and in the present Rule landfarms with under 1400 cubic yards are exempt from permitting requirements. And if the Commission wants to tweak that number on a policy basis, then we believe that's within the policy scope of the Commission. But again, we don't have a different recommendation because we think our recommendation is a good one.

Now there is a big issue about the application of the bioremediation endpoint in small landfarms. We're not necessarily opposed to that, even though we haven't recommended that it be done.

We don't believe it should be available as a general option for small landfarms; however, the IPANM commentor who addressed the Commission just before lunch suggested what may be a viable compromise that the Commission might want to consider, which would be that if a small landfarm appears to where it's not going to be able to meet the closure standards and the only option is going

to be to dig it out, that we might allow them to adopt that as an experimental alternative closure measure. And we think the Commission ought to look at that, and that's basically a policy decision, whether they want to go that way or not.

Now let me talk a little bit about closure. Commissioner Bailey suggested the 70 percent of a reference area rather than 70 percent of the area being closed for re-vegetation, and we adopted that in our revised proposal submitted this morning, except for landfill covers, for the reason that Mr. Chavez addressed.

I actually had not focused, when we did that, upon the agreement between the industry committee -- agreement in principal between the industry committee and the New Mexico Citizens for Clean Air and Water, which would adopt 70 percent of the reference area with the qualification that the reference area relied upon had not been adversely affected by such factors as fire or overgrazing.

In this particular respect, we believe that the agreement in principle between New Mexico Citizens for Clean Air and the industry committee has a lot to recommend it. It does have the problem that it's not nearly as easy to apply as the standard that we have recommended in the redline, but once again we believe the Commission should

look at that very seriously.

In terms of our subsection K, which Mr. Price testified about this morning, with regard to exceptions and waivers, that has been a very difficult one to draft, because -- not because we have any misgivings about allowing the Commission -- or allowing the Division to grant exceptions and waivers; we believe that flexibility is very necessary.

The concern has been, to what extent do we need to have public comment and involvement in those changes? On the one hand, public comment and involvement greatly reduces flexibility because it takes time to go through the procedure. On the other hand, we have been mandated by the Governor's Environmental Justice Program to allow meaningful public comment. And indeed, even before that was published, that was our policy in this type of permitting situation.

We have attempted in drafting the present version of K to deal with that by reference to our major and minor modification provisions. However, we note that Mr. Price testified this morning that a waiver of standards provided in the Rule would be major modification. We do not believe that the present text justifies that across the board. And certainly it would be Mr. Price's policy, but he may not always be Environmental Bureau Chief, and we believe the

present Rule is drafted -- the present proposal is drafted so it would leave that matter to the discretion of the Division.

Now we are inclined to believe the Commission should seriously consider adding to the definition of major modification, which appears in subsection A, paragraph (2), subparagraph (i) of the Rule, a provision that in some way or other states that any waiver of standards should be deemed a major modification.

Now I would note that with regard to landfarm closure standards, the proposed Rule does specifically say that. But it doesn't say that with regard to standards other than landfarm closure standards, and I think the Commission might want to consider looking -- taking a hard look at that particular area, based particularly on Chief Price's testimony as Bureau Chief that that's the way it ought to be, and that that's the way it would be under his tutelage.

I believe that I covered all of the major points that I wanted to cover in this discussion, and I thank the Commission for their kind attention over such a long and tedious hearing. And I will attempt, as I said, if the Commission has questions that a lawyer is competent to address -- which of course wouldn't include these technical issues -- I will be happy to attempt to address them.

Thank you.

CHAIRMAN FESMIRE: Commissioner Bailey, would you have any such questions?

COMMISSIONER BAILEY: Yes, I do. You recommend on legal grounds not to allow the non-oilfield waste that was allowed by rule several years ago. Have there been any complaints, any issues, any lawsuits, anything that brings this up as an issue?

MR. BROOKS: Mr. Chairman, Commissioner Bailey, there have been no complaints or lawsuits. There has been -- that I'm aware of. There has been -- the Division has experienced considerable difficulty, when it has been asked to apply this Rule, in applying it because it has a fairly vague standard about what is the -- what is similar and what is not similar. It requires that the waste accepted be physically and chemically similar to oilfield waste, and with regard to some things that's easy to apply, but with regard to others it's quite difficult.

My client is handing me a position -- handing me a note saying that I was wrong about saying there haven't been any complaints with regard to that, and I can't testify so I'll just say that I'm not aware of them, but apparently there have been.

COMMISSIONER BAILEY: Thank you, that's all I have.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: I just had a question, I guess, going back to one of those legal questions you brought up in the beginning about the Commission doesn't have the ability to make changes other than what's presented by a party at the hearing? Is that --

MR. BROOKS: Mr. Chairman, Commissioner Olson, there is a provision of the Commission's Rules -- and it's in the 1200 series now, and I may have trouble finding it specifically here, but -- give me one second, I think I can find it.

Yes, it's in Rule 1205.E.(3), and the provision says, The Commission shall issue a written order adopting or refusing to adopt the proposed change, or adopting the proposed rule in part, and shall include in the order the reasons for the action taken.

The contention that was made in the lawsuit that I am familiar with is that that provision says that the Commission can do two things. It can adopt the rule -- three things. It can adopt the rule, it can reject the rule, or it can adopt the rule in part. And the contention is that adopting the rule in part means, literally, adopting part of the rule and doesn't extend to adopting anything that's not in the rule as proposed.

I think that's a very unreasonable construction

because it would virtually write the Commission's rulemaking authority out of the Rules, and I don't think the Commission ever intended to do that when it adopted that procedural rule. However, that has been made in a lawsuit that is still ongoing and in which we have no ruling form any court, and therefore I think there's a possibility the Commission should consider that in terms of its procedure.

COMMISSIONER OLSON: Okay. I was going to say, it's always been my understanding you can do something -- or at least rulemaking -- with the Water Quality Control Commission that's within the scope of the hearings is a logical outgrowth of the hearings, so...

MR. BROOKS: Mr. Chairman, Commissioner Olson, that's my understanding also. I would note, however, that so far as I've been able to find, the logical outgrowth standard has been adopted by the federal courts. In connection with this proceeding I took the words "logical outgrowth" and word-searched them through the entire body of the judicial opinions from New Mexico state courts, and I got a no-hit result, so...

(Laughter)

COMMISSIONER BAILEY: Sounds like another rule on the list for --

(Laughter)

COMMISSIONER OLSON: That's all I had.

CHAIRMAN FESMIRE: Okay. Mr. Brooks, I have no questions, so I guess we'll proceed to Mr. Huffaker.

MR. HUFFAKER: Thank you, Mr. Chairman.

Mr. Chairman, members of the Commission, Controlled Recovery, Inc., or CRI, generally supports the proposed Rules that have been drafted and revised by the OCD's Environmental Bureau over the last six months. And we believe that the staff's work has in the main been careful and comprehensive and that it is supported by science. You'll note I didn't use the modifier "sound". That's been thrown around in here quite a bit. I think it's up to you to decide what sound science is before you here, but it is important.

CRI does have several discrete issues to offer for your consideration, and they're informed mainly by a cautionary philosophy. We have a mandate here to avoid risk to the environment, and we think it's paramount. We have some areas here we want to present to you where we think there is risk, and you should consider some changes to the Rules on that basis.

We believe with one exception -- well, three exceptions only, the landfill provisions of the Rule will protect public health and the environment.

Regarding landfarms, the genesis of these Rules

is the realization that existing landfarms do not work in a number of respects.

For instance, Mr. von Gonten's chart at page 20 of his testimony shows that the majority of existing landfarms in Lea County have failed to approach a 100-TPH standard after years of operation. And you'll all recall the presentation of the aerial photographs of existing landfarms that was presented by Mr. von Gonten, and I hope you'll recall that not a single one of them showed any re-vegetation whatsoever. Re-vegetation is apparently something regarding landfarms in this state that has not yet been achieved.

So we think that the landfarm provisions of the proposed Rules which regulate technology is still largely in its infancy in New Mexico and require your careful consideration.

CRI does agree with the basic concept of landfarming and when appropriately applied to hydrocarbon-contaminated soils, but we believe certain portions of the Rule should be approached with caution, and some portions of the Rule should be adjusted with the objective of caution to be sure that public health in the form of groundwater and the environment in the form of re-vegetation are ensured rather than put at risk.

We believe tankbottoms should not be allowed in

landfarms. The purpose of a landfarm is to remediate in place soil contaminated with crude oil. Landfarms are not intended to be permanent disposal sites for nonremediable contaminants.

Soil contaminated with crude oil has very low levels of metals and no chlorinated solvents, or SBOCs. Most tankbottoms have both. Tankbottoms contain sediments and other concentrations of materials including metals, and some chlorinated solvents, even, that are not amenable to remediation in a landfarm environment.

Tankbottoms are not soil under any reasonable definition of that term. Tankbottoms contain elements that will not bioremediate in a landfarm.

Putting tankbottoms on the land is not landfarming, it is land-spreading, which is a disposal method.

Placing tankbottoms on open ground violates the Division's no-release, no-risk policy testified to by Wayne Price.

No other industry in the state or in the United States enjoys the luxury of leaving unremediated waste exposed to humans, animals, plants and the environment.

I think the death knell to the idea of tankbottoms in landfarms is in the record. One need only perform a cursory comparison on pages 17 to 20 in Mr.

Price's presentation -- I think it's Exhibit 9, which is the charts from the EPA's associated waste report on crude oil and tankbottoms -- compare that with the proposed closure standards, including the parameters from NMED's Water Quality Control Commission Rule 3103, and you'll see there is a risk. Those standards are going to be violated with a tankbottom going *into* a landfarm.

You can't make an apples-to-apples straight comparison between those two documents because -- at least as far as I can tell as a non-scientist -- the methodology used by the EPA in sampling isn't clearly set out. But a cursory examination will show that on this record there are many of the contaminants listed in 3103 which show up as being violated by tankbottoms, in some cases all tankbottoms, for the following contaminants: arsenic, barium, chromium, copper, lead, manganese, selenium and methylene chloride.

Mr. Price pointed out that the EPA findings include some fairly nasty volatile organic compounds, and that for some of the SBOCs and heavy hydrocarbon constituents present the jury is still out on their ecological hazard.

Even Dr. Thomas testified that chlorinated solvents should not be in a landfarm and that they would create a toxic risk to crops and people.

There is nothing in the Rules that requires any sampling or other characterization to determine if these hazardous substances are present, or to what extent, before placing tankbottoms in a landfarm.

Under the proposed Rules, their presence would first be discovered at the time of closure.

No witness in this hearing has provided a rationale for accepting tankbottoms in landfarms. They were only quoted as parentheticals in the various written presentations. No data was presented by any witness, OCD or industry, to show tankbottoms will respond to treatment and be remediated in a landfarm.

For instance, look at Dr. Sublette's presentation. His written presentation had a list of 16 academic studies of bioremediation in landfarms, at pages 32 to 34. None addressed tankbottoms.

So I think in the current Rules tankbottoms are a giant loophole. The don't fit the definitions in the draft rules, they're not soils. Not having a treatment in close proximity is not a valid -- a reason to introduce them into a landfarm. The location of tankbottom treating plants is not related to toxicity in landfarms. This proceeding should not be an exercise in finding ways to make waste disposal easy, convenient or cheap. The Commission should remove all authority for placing tankbottoms in any

landfarm.

Small landfarm standards should not be relaxed in the current draft Rules without careful consideration.

Small landfarms exist for the immediate cleanup of small accidental spills from production operations. Because of this concept, they need only register with the Division. No permit is required, no professional engineer need be involved.

Many proposals have been made that would allow the Commission to consider allowing small landfarms to grow in size, volume, I think in duration, and in sophistication. For instance, we have the issue of how many landfarms per lease should be allowed?

Now -- We had that issue until this morning, and now we have a different issue based on the change to that provision which would allow, as I read it, an operator to have a limitation of one per section, but no limitation of how many sections or how far away from the actual spill he's locating his small -- or multiple small landfarms. It's only a limitation that they have some production near his small landfarm. It doesn't have to be the one that created the spill.

If an operator needs multiple small landfarms to clean up spills from multiple sites, you have to question whether we're dealing with a good operator. We don't want

a small landfarm provision to be maybe our worst nightmare. Our worst operators have the largest number of small landfarms.

I'm not sure exactly what we're going to propose in that vein. That is a limitation because it just came up this morning, but we're going to propose something.

But the real point I want to make is, you may want to relax some portions of the current landfarm rule. I think Mr. -- I'm in agreement with Mr. Brooks that that may happen. But please don't relax many of them. If you do, we're going to have an increase in risks to the public and to the environment -- public health and the environment, and we're going to essentially have landfarms proliferate as a substitute for large landfarms or landfills if we're not careful.

And I would also caution you, if you do decide to allow landfarms to undertake the bioremediation endpoint analysis or system, which we don't necessarily oppose in and of itself -- recall that, however, that provision in the Rules allowing bioremediation endpoints to be the standard for closure requires a detailed operations plan. That's at G.(8).(b) and (c). Registration cannot be a substitute for that. If you do allow endpoint in there, you're going to have to require the small landfarm operators to go ahead and provide the Division with that

detailed operations plan, in addition to registration.

So good practice can't be assured by registration. If landfarms grow like Topsy, then they should be permitted. That's our position. And when we say grow like Topsy, we mean grow in size or duration or quantity or in the sophistication of the treatment.

Gas management plans. I'm not sure we're very apart here, but we're still not happy. I think we agree that it is likely that oilfield waste landfills do not provide a great risk of gas generation. Commissioner Bailey, you noted that gas is generated from volatilization of crude oil. We think Mr. Gordon addressed that, and we think everybody agrees it's likely that most of that volatilization will occur before placement in a landfill.

Of particular importance in this vein is that Mr. Gordon testified that the wetter the waste, the more gas that's generated. And we know from the Rules that only waste that has passed the paint filter test may be introduced into a landfill. So the volatilization will largely have occurred before that waste gets anywhere near the landfill. And closure with a cap won't occur for years and years and years, and essentially there won't be any volatilization after closure.

The vice in the proposed Rule is, we think, it leans heavily towards provision of a detailed gas safety

management plan in every case, and we think the minimal risk of gas generation does not warrant the intensive and extensive studies that that requires. So we're going to propose new language. It isn't going to be a whole lot different from what's in there, but the new language is going to focus on requiring that the professional engineer who prepares the permit furnish information concerning the possibility or probability of landfill gas. And if his conclusion is that the risk is minimal, then that should end the matter.

And I don't think we're far apart on this. We're trying to avoid large gas management planning as an assumed requirement, that's all.

Fifty feet to groundwater siting requirement should be replaced with 100-feet requirement. We have heard a good deal about this from Dr. Neeper, and suffice to say we agree with him.

We want to add one thing. According to Dr. Sublette, the application of supplemental moisture must be part of a successful landfarm. To quote him, he said it takes water, everything takes water, water, water, water. And he stated that if you can't maintain adequate moisture, then there should not be a landfarm at all.

But no one at the hearing, including Dr. Sublette, was able to inform the Commission how much water

is necessary for successful bioremediation in distinctly dry New Mexico, the driest state in the nation with substantial oil and gas production.

So CRI is concerned that when you combine the necessity of applying large amounts of supplemental water to an unlined landfarm with the risk of preferential pathways, you are presenting an unnecessary risk to groundwater contamination. This can be addressed, and the risk can be avoided, by setting the limit at 100 feet.

According to the provisions on the generalized -- groundwater impact sites, which is available on the website, 91 percent of the 400-odd historic groundwater contamination events that have been addressed by the OCD have occurred at sites where the depth of the groundwater is less than 100 feet. The risk is there.

We don't know how much water we're going to be applying, we don't know whether there's a preferential pathway there. Isn't it prudent to do what NMED does and apply a 100-foot standard? And isn't this prudent in the case of landfarms which, unlike the NMED solid waste regs, are unlined? They don't have any protection.

And finally, there's been -- it's been floated out here that it's hard to avoid placing a landfarm somewhere where the depth to groundwater is greater than 50 feet. I haven't heard that addressed as a fact that you

can base a decision upon. I would say that it's just as easy on this record to conclude that it is easy to avoid placing a landfarm or a landfill in a place where the depth to the groundwater is 100 feet -- or less -- is 50 feet.

To be blunt about it, if the lease operator can't find a site for a small landfarm with greater groundwater depth than 100 feet, he ought to take his spill-contaminated soil to a permitted landfarm or to a landfill. The risk should be avoided. We should follow NMED's lead and make it 100 feet when we're working with unlined pit -- not pits, unlined landfarms.

Perpetual records retention is something we have addressed repeatedly in our submissions over the last six months, and we haven't been able to get it changed. CRI questions the requirement in proposed Rule 53.E.(6).(a) that both generators and operators indefinitely maintain their copies of the C-138s and other records. This is a change from the current Rule that requires records to be maintained for five years only. No rationale for this change has been presented.

CRI has no objection to the existing five-year retention period, and it has no requirement [*sic*] to the new requirement in these Rules that the last five years of records be maintained for an additional five years at the beginning of closure.

But CRI objects to the modification of the Rules required to maintain all of its records created from the first day of business, as long as it remains a business, nor could it comply since it's already destroyed all its records that are more than five years old, and we'll suggest language to address that in our findings.

We believe the Commission should continue the authority of landfills to accept nonhazardous non-oilfield waste on a case-by-case basis. It is true, this Commission, three years ago, in Case Number 13,013, considered the issue and made findings that it was a good idea to allow this. Let me quote from a couple of them.

Authorizing Division-permitted waste disposal facilities to accept non-oilfield waste for management and disposal in non-emergency situations will provide needed additional options for disposal of non-hazardous, non-oilfield waste generated in the State of New Mexico.

And there is no material difference in environmental impact between the storing, treating or disposing of non-hazardous, non-oilfield waste and the storing, treatment or disposing of oilfield wastes.

NMED filed comments in that case. They were signed by Tracy Hughes, general counsel of NMED, and she suggested two things be changed which were changed and incorporated in the Rule. Otherwise, NMED through its

general counsel had no objection.

It was pointed out just now by Mr. Brooks that this provision would create and extension of the Oil and Gas Act. That is true. There is precedent for that, again in the federal system, not in the state system, and the precedent is based on two things.

One is, flexibility is allowed an agency in interpreting its rules. And long-standing interpretations of a statute by the agency empowered to interpret it -- that's you -- are valid. Whether three years since Proceeding 13,013 is a long-standing interpretation, I'm not sure. What I will do is bring the research that I'm aware of to bear in our suggested findings so you can consider it.

The safeguards that exist in the current Rule are not vague, and they are several.

Non-oilfield wastes must be non-hazardous, it has to be similar in physical and chemical composition to the oilfield wastes authorized for disposal at the facility, it has to be documented on OCD Form C-138 and accompanied by acceptable documentation to characterize the waste so we'll know what it is, and it must be approved in advance by OCD staff in each instance.

In this proceeding, in our prior submittals, we repeatedly said we're not aware of any problems with the

administration of this Rule up until now. And we didn't hear about any problems in the testimony of Mr. Price and Mr. Martin, Mr. von Gonten and Mr. Chavez during this proceeding. The only thing we heard about was, Mr. Brooks says there's some problem now, today. That's too late, I can't address that. I don't even know what it is. I think you should ignore that and accept what we have alleged throughout this proceeding, that there have not been any problems. CRI is not aware of any.

Finally, the Division, presumably operating under this Commission's sanction, currently approves of this same kind of cross-jurisdictional disposal practices. In current proceeding BW-031, the Division is preparing to allow the injection of treated effluent from the City of Hobbs wastewater treatment plant into an OCD-regulated brine extraction well in Lea County. That effluent is treated domestic waste, it's non-oilfield waste. It is not hazardous, and disposal of which is obviously ordinarily NMED's domain.

If OCD has the ability to authorize the acceptance of non-hazardous, non-oilfield waste in that case, it should in this case. And we'll provide some legal basis for that, addressing Mr. Brooks' concern, in our proposed findings.

We support the reduction of the chloride standard

for closure from 1000 milligrams per kilogram to 500 milligrams per kilogram, as addressed by Dr. Neeper.

I want to add here one thing to what Dr. Neeper said. All the witnesses addressing the subject agreed that it is necessary that salts move out of the contaminated soil. That's a given for landfarming. Not only as to address re-vegetation but, as presented at length by Dr. Sublette, to promote bioremediation.

But it is also agreed that while the addition of moisture during remediation will take that salt down below the root zone, later, during evaporative periods, that water reverses course and moves back upward through the soil, bringing dissolved salts back to the surface. That's in the record from Dr. Sublette. He had a little chart that has a bunch of little chloride symbols, and when water's coming in, the chloride symbols go down; when water comes up, the chloride symbols come up.

Same for Dr. Stephens. He has a little sign -- a little chart that shows addition of moisture and solvents going down, evaporation of moisture and it's going up.

Look at the Bresler study that was presented by Dr. Stephens for his chloride bulge opinion. At the last one of those charts in that opinion, there is a gigantic spike of salt right at the surface. It goes all the way off the chart. There's a problem here, and I don't think

it's being addressed.

CRI's concern is with the inevitable return of salt to the root zone and to the surface when the addition of moisture ceases during closure. Closure concludes with unattained sustained vegetation. We all hope that this time the salts will move up because of evaporation. They may kill that re-vegetation.

The risk is manifest, but it hasn't been addressed. We submit that risk -- which I believe is agreed upon, but not addressed -- to the Commission for consideration when you decide whether to accept Dr. Neeper's recommendation to reduce chloride standard from 1000 to 500.

Waivers and exceptions in 53.K. These Rules obviously have been, are being, and will be carefully considered and crafted by the Commission. The need for waivers and exceptions should be -- an exception. Any waivers and exceptions that are granted in the future should be recognized as likely to set a precedent for other operators to request similar waivers and exceptions. Thus a waiver and exception could be the basis for a *de facto* amendment to the Rules.

Accordingly, we believe strongly a landfill or a landfarm permit approved after public notice should not be materially altered without public notice.

This Rule 53 changed twice today. First we got a new version this morning in redline from Mr. Brooks, and now we have a new interpretation this afternoon where it is said that the waiver of a standard is a major modification. That sounds very good to me. I want a chance to think about it, frankly, and address it in our written comments. I think we're headed in the right direction. But we can't have *de facto* changes to the Rules sneaking through because of the way that 53.K is drafted. We'll be looking at it carefully and give you our opinion. We're encouraged.

We support retention of the 1000-milligram-per-kilogram TEPH standard. Only thing I want to add is, it was our feeling that the industry showed that maybe it was a little low, but they didn't show it ought to be increased 1000 percent to 1 percent. Just didn't get there. So the Commission ought to take a look at that. But we want to tell you, we don't think the case has been made on this record for that large an increase. And then that is the only place where we materially disagree with the NMCCAW-industry group agreement, and we do agree with the staff on that.

We have one or two other small matters that we think are typos, and I'm going to leave for our written submission to ask you to look at those.

And that concludes my presentation. If you have

any questions, please ask.

CHAIRMAN FESMIRE: Commissioner Bailey?

COMMISSIONER BAILEY: I don't think so.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: No questions.

CHAIRMAN FESMIRE: Nor do I, Mr. Huffaker, thanks very much.

Mr. Carr?

MR. CARR: With your permission, I think I'll go over here. I'm sitting in a hole back here.

(Laughter)

MR. CARR: May it please the Commission, as I'm sure you know, a closing statement is an opportunity for the attorneys in the case to discuss with the Commission the law and the facts of the case.

Mr. Hiser is going to review with you the industry's committee -- the industry committee's technical proposal, and I'm going to take just a few minutes and briefly address with you certain legal and procedural issues that I think you really must consider as you start your deliberations in this case.

This case really presents important issues concerning the role of the Oil Conservation Division and of the Oil Conservation Commission. And in the past, and I'm sure in the future, I'll come before you and I'll remind

you that the Supreme Court of New Mexico in *Continental vs. the Oil Conservation Commission* observed that this Commission is a creature of statute, and your powers are expressly defined and limited by law.

I think here, as in other cases, that is an appropriate place for you to start. When you start to consider the issues that are before you, it is the logical starting point, it is the basis for all your actions. And it is particularly important in this case because what you are doing is not only acting pursuant to the Oil and Gas Act but also functioning as a constituent agency of the Water Quality Control Commission. And both of those statutes define what you can do; they also limit what you can do.

We're dealing with a regulatory scheme where the Commission is playing multiple roles. You're exercising authority under the Oil and Gas Act to prevent waste, to protect correlative rights, to manage these surface waste issues.

But as you do that, you must also meet your responsibilities as a constituent of the Water Quality Control Act. And I suggest you must read these two statutes together, because it presents one true regulatory scheme. And it's particularly important -- and I can't emphasize this too much -- is important because the

statutory source of your authority brings with it limitations on what you may do to exercise that authority.

Now we all know that the principal jurisdiction of the Oil Conservation Division and Commission is the prevention of waste and the protection of correlative rights. And a few minutes ago, Mr. Bruce [*sic*] discussed with you Section 70-2-12.B, the laundry list, the enumeration-of-powers section. There are three that I think may impact -- or one that may impact what you're doing and two that definitely do.

Subpart (15) talks about the Oil Conservation Commission being empowered to regulate the disposition of produced waters or waters used in connection with drilling or producing oil. This section talks about your authority to deal with produced waters as it relates to water contamination. That's the only thing I can find in the Oil and Gas Act that talks about anything that might possibly be involved here today, in addition to the two provisions that Mr. Brooks cited to you a few minutes ago, subparts (21) and (22).

And they read, The Commission is empowered to -- and I quote -- to regulate the disposition of non-domestic wastes resulting from the exploration, development, production or storage of crude oil or natural gas, to protect public health and the environment. Doesn't mention

fresh water.

The next section says that the Commission is empowered to regulate the disposition of non-domestic wastes resulting from the oilfield service industry, the transportation of crude oil or natural gas, the treatment of natural gas or the refinement of crude oil, to protect public health and the environment. And then it says, Including administering the Water Quality Act.

Both times they talk about disposal of non-domestic waste, they talk about human health, the environment. But I submit when you read this statute, the authority that you're exercising today springs from the Water Quality Act.

And this isn't a sloppy regulatory system. What's in the Oil and Gas Act fits with what's in the Water Quality Act. They're consistent and they're integrated. And when we look at the statutes, it is clear that the Water Quality Act, in this case, is what authorizes you to regulate contaminated soils, drill cuttings and other things that don't fall in the produced water category, to protect groundwater.

The Oil and Gas Act doesn't give you that authority, as I read it, it comes from the Water Quality Act.

So what does the Water Quality Act say?

Well, it creates the Water Quality Control Commission, and it makes the Oil Conservation Commission the constituent agency of the WQCC. It directs the Water Quality Control Commission to adopt water quality standards for surface and groundwaters of the state.

It goes on to say that the WQCC shall adopt, promulgate and publish regulations to prevent or abate water pollution in this state. The Oil and Gas Act says you're to administer the Water Quality Act.

What does the Water Quality Act say? And I'm going to quote it.

It provides in Section 70-4-6.12.(F), and I quote, In the adoption of regulations and water quality standards and in an action for enforcement of the Water Quality Act and regulations adopted pursuant to the Act, reasonable degradation of water quality resulting from beneficial use shall be allowed -- not may be allowed -- reasonable degradation of water quality resulting from beneficial use shall be allowed. Such degradation shall not result in impairment of water quality to the extent that water quality standards are exceeded.

I submit in that case that provision applies to you, and the statute you are to implement and enforce provides that reasonable degradation of water quality resulting from beneficial use shall be allowed.

And when the Division comes before you as an Applicant with a proposal that contains and is based on a no-degradation, no-discharge policy, I think you must start with the statute and you must ask yourself if you have been asked to do something which violates statute, which is inconsistent with your role as a constituent agency of the Water Quality Control Commission.

Now our courts have looked at this section of statute. I can find three cases.

In *Tenneco vs. the Water Quality Control Commission*, the Court of Appeals simply observed that when the WQCC adopts regulations it acts in a manner consistent with the powers delegated to it by the Legislature.

In *Kerr-McGee vs. the Water Quality Control Commission*, the Court of Appeals observed that a constituent agency of the Water Quality Control Commission is assigned the administration of these regulations and standards to prevent water pollution and to protect fresh water. And it says, In so doing the constituent agency merely applies these standards.

Last year in 2005, in *Gila Resources Information Project vs. the Water Quality Control Commission*, again the Court of Appeals observed that since the Water Quality Control Commission adopts standards and the constituent agency administers standards, the constituent agency may

administer but not change or interpret differently the regulations and standards adopted by the WQCC.

There is a threshold issue here you must consider, and it's for you to decide. But the question is, can you adopt a no-degradation policy? And my reading of the statute and cases says you cannot.

Let's go back another legal issue and let's look at the Oil and Gas Act. It requires you to prevent waste of hydrocarbons. The record in this case is full of references to proposed regulations that our experts believe were unnecessary and excessive. There are a number of matters that have been pointed out that we consider burdensome to operators, that are too costly, that are in effect going to have a chilling on the development of oil and gas in New Mexico. Because of this, they will cause waste, they will impair the correlative rights of owners of these minerals.

Where is the Division's evidence on these fundamental, foundationary matters upon which your jurisdiction rests? Where in this record is it shown that what this Division proposes will prevent the waste of hydrocarbons? Where in this record is there anything that says what is proposed, this no-degradation standard, will protect correlative rights?

By law, you have to make findings in your order,

finding that the order of the Division will prevent waste and protect correlative rights, and it has to have substantial support in the record. You can't ignore these primary jurisdictional matters. And if you do, I would suggest you're allowing the tail to wag the dog.

You go look at the record. I think on the issues of waste and correlative rights you will find it very thin.

You're also charged with protecting human health and the environment. The industry committee has proposed a risk based approach that we believe we have shown through Dr. Thomas, particularly, that it will be protective of human health and the environment because toxicity will be gone.

Where is the Division's evidence that shows this no-degradation, no-discharge policy is needed to protect anything in particular? There seems -- There's no connect in the record that I can see between a no-release policy and any particular problem. I mean, surely everyone here, even Bill Carr, knows that if you have no release you're not going to have any pollution. I also know if you shut down the industry you're going to have no pollution. But those aren't science-based determinations.

And before this Commission implements what appears to be a very burdensome regulatory scheme, the industry submits that something should have been presented

that showed there was a problem that would be fixed by what you're proposing.

Now I've been here and there may have been problems of human health discussed in this hearing, but I don't remember them and frankly, I don't know if they're in the record. And I'm sure everybody's going to jump forward and try and defend the record and say it's much more than Bill Carr reads and all.

But let me tell you something, that's not my decision, that's your decision. You have to take the record in this case, you have to look at what you're charged by statue with doing, and you have to decide how you're going to do it. And that's the challenge for you today.

Now there's one final legal issue, and it's a very minor point but it pops up in meetings the industry committee has had. Basically under these rules and other rules you not only deal with the industry, the oil and gas industry, but you have impacts on other stakeholders, and they're provided with notice and, if they object, an opportunity for hearing.

And in the discussions we have had in the industry committee, we have been concerned that simply by objecting we believe -- and we hope it's true, and if it isn't we'd like to know -- that when someone objects they

are then required to come here and on their own prove, in a hearing, that what's being proposed does violate correlative rights, cause waste, impair human health and environment. In other words, that the burden will be on them to show that what we're doing is wrong, and not just by virtue of objecting be able to tie us up and perhaps bring the agency in to their aid.

You know, we've been involved now for a long time in this rulemaking process. The issues in this case are much more complicated than I thought they would be, and I think the proceedings at time became more adversarial than I think they needed to be. I'm trying to figure out why -- It seems to me that maybe some of our early meetings were too formal. I don't know.

But I can tell you that recently in negotiations with representatives of the New Mexico Citizens for Clean Air and Water, we sat down around a table, we talked directly with one another, and the sense was -- and I think the representatives of the New Mexico Citizens for Clean Air and Water agree -- we felt we made real progress. And as we move toward the pit rule and other rules, we're going to try and take these not in such an adversarial or controversial posture.

The industry committee, as you know, has provided comments and proposed modifications on the Rule. We

believe what we propose will work. We believe what we have proposed, if you adopt them, would meet your statutory duty. We believe it would satisfy your policy objectives, and we know what we're recommending is based on sound silence -- sound science.

(Laughter)

MR. CARR: You want me to be silent, I can --

(Laughter)

MR. CARR: But it is based on science, and we would encourage you to look at the whole record, and we would ask you to adopt the industry committee recommendations.

When I made my opening statement I said you were going to be asked at some point to do your job, and I noted that it wasn't going to be easy. Well, we're now to that point. And in doing your job, as I've indicated, you've got to look at the waste issues, correlative-rights issues, human health, the environment, your role as a constituent. And you have to consider all of these things, not must some of them, and you have to do it in a way that doesn't create a problem for small business.

And these matters come to you, to the three of you, for a very definite reason and that is, they're entrusted to you because of your special expertise and competence in this particular area.

And so now we deliver the Rules to you. You're going to be required to balance technical presentations, you're going to be asked to use your expertise and technical competence to distinguish between what is real science and that which is not.

You're going to be asked to meet your statutory charge to decide which of the proposals advanced in this case really enable you to meet your charge. And that means you're going to have to decide between a risk based approach and BDAT.

And you're also going to have to take all of this and weigh it against what is your jurisdictional charge under the Oil and Gas and the Water Quality Control Act? You've got to do all of this, and you've got to comport with statute. It requires balancing of competing interests and proposals. It's not easy, but it's your task because you're the Oil Conservation Commission.

CHAIRMAN FESMIRE: Thank you, Mr. Carr.

Commissioner Bailey, do you have anything to ask Mr. Carr?

COMMISSIONER BAILEY: No, I do not.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: I have no questions.

CHAIRMAN FESMIRE: The only question I have, Mr. Carr, is, have you patented the phrase "sound silence", or

copyrighted it?

MR. CARR: I'm afraid it's going to be cited back to me.

MR. HISER: Just a minute while we get all the electronic stuff together.

CHAIRMAN FESMIRE: Why don't we go ahead and take a 10-minute break, then, and reconvene at about 20 till 3:00?

(Thereupon, a recess was taken at 2:31 p.m.)

(The following proceedings had at 2:43 p.m.)

CHAIRMAN FESMIRE: Okay, let's go back on the record in Cause Number 13,586. Again, let the record reflect that it is 15 minutes till 3:00 on Thursday, May 18th.

The case was to the point where Mr. Hiser was going to begin his closing statement; is that correct, sir?

MR. HISER: Yes, Mr. Chairman.

CHAIRMAN FESMIRE: What do you say we begin?

MR. HISER: Thank you. Mr. Chairman, members of the Commission, it is my goal, if possible, to explain what exactly is the technical proposal of the industry committee that we have heard so much about over the last eight days of testimony, but which we really have never seen sort of laid out, exactly how does it work, how does it relate to much of the technical testimony that you heard from Dr.

Sublette, Dr. Stephens and Dr. Thomas?

And so I'm going to try to draw together all these different lines and show you what exactly it is that the industry committee is proposing, explain how that relates to the technical testimony that you heard from the various experts, and hopefully give you, as Commissioner Olson had requested, sort of a walk-through about what exactly it is that we're proposing and where we differ from the staff's position.

And although I don't know that I can aspire to the rhetorical heights of some of the others who've spoken here before me, we might hope to at least make it clearer exactly what it is that is being proposed for you to consider in addition or as an alternative to what the staff has put together.

And I'm really going to do that by first introducing the proposal itself and how that relates to the tiers that you heard Dr. Thomas talk to you about.

Second, I'm going to talk about the six major issues that are a policy or a scientific decision that the industry committee really believes have been placed before you as the members of the Commission to decide today.

And lastly, we're going to talk about a framework for decision that you could use, using the tools that Dr. Thomas provided, to help you reach a decision about which

of all these different things that have been sort of placed in your lap would be the most appropriate decision to protect public health, fresh water, the environment, and also address your responsibilities for the protection of correlative rights and prevention of waste. We'll hope to give you a framework that will help you do that as well.

So we're going to start with what exactly is the tiered approach, and what parts of the industry committee do that? And I have some slides here because I know for me it's helpful sometimes to visualize it as well as simply hear it talked to me about.

And as you remember from Dr. Thomas's testimony, a typical risk based approach will operate with three tiers.

You have a very early tier, commonly called Tier 1, and that is a very protective, in many cases considerably overprotective, approach that is going to be protective in virtually all circumstances. In the industry committee's approach you see that in a Tier 1, which covers what we now call a Class 1 landfarm, to get rid of the confusion with Tier 1 landfarms, but that would be our Class 1 landfarm approach and also small landfarms.

In both of those cases, the industry committee has striven to -- as your staff has -- come up with an approach that would be protective for virtually any

reasonably foreseeable circumstance throughout New Mexico.

Tier 2, then, is a semi site-specific approach which would be protective for the specific proposed location, and the industry committee has embodied this in what we call the Class 2 landfarm approach. And here you may see I refer to it as a semi site-specific approach, because what we have attempted to do is identify certain very easily identifiable site characteristics, something like the size of the permitted facility that you'd be considering, to help you make a somewhat more risk based about what is appropriate closure or corrective action standards, as opposed to simply using the broad cookie-cutter approach, which has to be appropriate all across the state. And so it's a little bit more site-specific, it requires some more information, but we've striven to do this in a way that it does not impose additional burdens on the staff.

The Tier 3, then, which is typically the broadest based sort of alternative approach to risk, is embodied in the staff's proposed subsection K exemption process.

Now the staff has argued that we don't need to have a Tier 2 because we have a Tier 3. And respectfully, the industry committee says the Commission may want to seriously consider that before it adopts an approach which would take everything that would be site-specific and

places it back in front of the Commission for hearing just like we've gone through these last eight days.

If there's a way that we can take some of those issues and put them in a modified in-between tier that would reduce the amount of time and resources that would required in the hearing process, that may be more appropriate use of the limited resources available to both the Commission, since we have only a limited amount of time to hear these matters, and also the Division staff which then also has to prepare and be able to present its side on any of these exemption hearings.

What then is the Tier 1 approach that the industry committee is recommending to the Commission? Well, the first part of it is the Class 1 landfarm. This is substantially similar to the staff proposal. As a matter of fact, the number of differences are now really quite small.

The primary difference is that the industry committee is not recommending that tankbottoms be placed in a Class 1 landfarm. We think that if we do that, that we are adding some additional complications that are perhaps more appropriate to a Class B landfarm, rather than a Class 1.

Because we're not proposing to include anything except for condensate and hydrocarbon-contaminated soils

and cuttings in these, we really don't believe that the 3103 constituents are that major of a concern for these Class 1 landfarms. And as we heard the testimony of -- during the hearing, some of the 3103 constituents are extremely costly to test. For example, PCBs, over $1500 a test.

The third change would be that there's no treatment zone monitoring unless we're proposing to use the bioremediation endpoint. And the reason for that is that we've been unable to ascertain a real purpose for that treatment zone monitoring. It doesn't provide information that the landfarm operator would use in their handling of the facility. It doesn't really provide useful information to the OCD in purposes of assessing how well the landfarm is progressing, which is more based on time and treatment approach. And so given that there doesn't appear to be a real purpose served, we simply propose to eliminate it and to move some of those concerns into other parts of the proposal.

We are proposing a somewhat deeper vadose zone monitoring, and that is for the purposes of chloride management. You may remember that Dr. Sublette talked about how we manage chlorides to maximize the rate of bioremediation by pushing them down during the water time, while we're watering, and then they tend to go back up as

you till and all that, but we're doing this managing process.

Now you also heard from Dr. Stephens that an appropriately managed landfarm is going to have some migration, particularly of the chloride, into the subsurface, and so we need to provide for that as well. And we know that chloride is a major concern, and I'm going to talk at length -- but not too much length -- about chloride here in a little bit and what the industry committee's recommendation is to you, because we're very concerned about chloride as well. We don't want to create a groundwater problem, nor do we want to have a problem where we're not able to re-vegetate, because we agree with the New Mexico Citizens for Clean Air and Water, with the staff and to some extent even the CRI, that re-vegetation is the ultimate goal, because that is the best way we have of restoring everything to where it was before.

The last thing is that we prefer the New Mexico Citizens for Clean Air and Water approach to corrective action. The background standard is very problematic in its application because there is going to be offgassing, we'll have the stuff going back and forth with the changes in barometric pressure that Dr. Neeper talked about, you have some issues with chloride. And with a background approach any of those things would throw it into corrective action,

and we think that that is potentially problematic for the OCD which has to then decide what it's going to do about that, as well as for the industry. And rather than adopt a program which creates problems from the outset we think it would be better to use one that really is still very protective, which is the closure standards.

Other differences are in the closure. And basically, I don't know that there's very much difference anymore. I believe that Mr. Price agreed -- or it may not have been Mr. Price, it may have been Mr. von Gonten -- that -- they agreed that if the standard is below the practical quantitation limit or what the lab can routinely detect and measure, that they would not regard that as something that would require corrective action or closure. So that's what a PQL is, and that would be one of our recommendations as well.

We have defined the background with a little bit of a statistical test so that there's not going to be arguments about what background means, and we think that's an important part that you as the members of the Commission can do in adopting this Rule.

Other than that, we're proposing to use the same limits that the staff is for benzene, BTEX, TPH, GRO+DRO, TEPH and chloride for the Class 1 landfarm.

We're proposing to use the test that Dr. Sublette

presented to you that has that very low chance of a Type 2 failure, which means that there would be a very small chance that we would actually see residuals higher than what the test is projecting, and even if we were, it would be more than 1.1 percent or 11,000. So you've got a very good level of confidence with that statistical test.

And lastly for the bioremediation endpoint, the big thing here is to eliminate the 80-percent reduction and to substitute it instead with that 1-percent TEPH and the limitation on the solid phase. We believe, based on the work that Dr. Sublette has done and the discussions with Dr. Neeper and the New Mexican Citizens for Clean Air and Water, that that really addresses the idea of paving the state with petroleum products or asphaltines, because here we're limiting how much of that solid phase can be present, both in terms of percent, also in terms of the size. We are going to hence keep the emphasis on those things which are properly treatable and bioremediable.

Last thing that we're proposing to do is to remove some of the excessive detail where there's information required that doesn't really serve any purpose. We hard Dr. Sublette, who's our leading authority on bioremediation in the United States and is actually the director of the EPA center for that, talk about the fact that in that native soil monitoring program he had no idea

what you would use any of that information for.

The other part of the Tier 1 proposal is the small landfarms. And as you know, the industry committee is seeking a 2-acre small landfarm, up to 6400 cubic yards and less than three years. Why 6400 versus 1400? Well, that's two acres up to the standard two-foot lift that we've been talking about.

The industry committee would not agree with the questions of Chairman Fesmire which suggest that only one lift is appropriate, because we think that that is actually somewhat short-sighted. One of the goals of this is to allow us to consolidate a couple of small spill areas into a single landfarm, and this allows us to actually put a couple of lifts on from the different places that we may be consolidating.

And so the idea behind a small landfarm is actually to reduce the number of areas where we have on-the-land bioremediation occurring. And where it is not the best choice where the spill occurred -- because it may be close to a wash, it may be in an area where you have a lot of cattle grazing or it's very important like it's a pasture area -- we can take that out of that area and move it to a more appropriate location from an environmental perspective and perhaps even a landowner relations aspect with the people who may be there.

So we think that the flexibility that's provided by the slightly larger landfarm is very important because of the ability to perhaps reduce the environmental impact of the industry to the land surface.

We have two chloride limits. One of these looks fairly high. If it's less than a half acre, we see that we're recommending a 5000-milligram-per-kilogram chloride, and that's based on EPA's SSL study. For a two-acre, which is the one that Dr. Stephens did the modeling for, we recommend the 2000-milligram-per-kilogram. In both cases we believe that there is an ample margin of safety.

And it's at this point, I think that, although I've got chlorides coming up, I think it's important to understand the industry committee approaches chloride on two different levels, because there are two major issues on chlorides.

The first is protection of the groundwater. These limits here, the 5000 and the 2000, are protective of the groundwater, based on all the modeling that we've done, and with so many levels of conservatism that even if there were to be a preferential pathway, although we don't know how often those occur and there's no quantification that they are very frequent, you're probably still going to be relatively protected. These levels are not very high.

The other issue is re-vegetation on the surface.

We agree with that, and that's why the industry committee has agreed with the New Mexico Citizens for Clean Air and Water that for the surficial soils, where we're trying to root our grasses, our other vegetation, we need to bring the final closure levels down in that level of the soil horizon to an EC of less than 4 and a SAR of less than 13. Those levels are protective and will allow the vast majority of species that we would tend to use for re-vegetation in New Mexico to be used, and would restore very close to being the natural background that you would see in that area throughout the state.

Small landfarms, we also agree, should be limited to hydrocarbon-contaminated soils. We would like the bioremediation endpoint to be allowed here, because we think that if dry landfarming works, bioremediation landfarming works even better, because you have more nutrients, more water, and a better chance of overall success.

Our Tier 2, then, Class 2 landfarms, this we would propose to broaden to accept any of the exempt oilfield wastes, and this would include tankbottoms if the Commission decides that it wishes to allow that. We don't see any reason not to include tankbottoms. There are numerous studies which are available in the literature that show the proper bioremdiation of, or proper landfarming of,

tankbottoms. And so it's not something that the technology cannot address.

One of the arguments that you've heard from Mr. Huffaker is that there may be nonbioremediable compounds present in there. That's true, there may be, in which case, then, obviously the landfarm cannot be the final disposition of that soil; it would need to go someplace. But it may be a step in the treatment process, and it may need to go to some other place in order to handle it more effectively or obtain a better rate. And anyway, there may be things which are non-remediable, but which may be below the closure standard, in which case that's still protective.

And it's an unfortunate but very important reality of the oilfield that you don't get nicely segregated waste streams. If you have a spill, it's going to spill onto whatever it's spilled on, and we have to deal with what we find. We don't always have the ability to have it nicely segregated to, this is only crude oil, this is only condensate. Frequently it's going to be a mix of crude oil, plus maybe there was a produced water spill at some point in the past, and you have to take the land a little bit how you find it. And that's why it's important that there needs to be some flexibility in what can be handled in each of these facilities, so we don't end up

having to landfill things that could be very appropriately bioremediated, just because of a definitional issue in our Rule.

The chloride limit would then be based on the site-specific DAF, multiplied by the Water Quality Control Commission standard. And that was actually presented to you by Mr. Price in his presentation. At the end of his chloride presentation, he showed you the EPA's derivation of what the different dilution factors were by the area of a facility. And what we're proposing is that this Commission could adopt that table, and that would provide a reasonable area-based approach to establishing more appropriate chloride and Water Quality Control Commission standards than simply adopting a one-size-fits-all at the DAF 1, as the staff had recommended.

Now very important, going together with our recommendation to the Commission that you accept any oilfield waste -- that's, obviously, bioremediable -- at a landfarm, obviously we're going to have a greater chance of other constituents present. And so for these Class 2 landfarms, the industry committee is recommending that we include all the 3103 constituents. We believe that is very appropriate, and we think that that should be done.

The rest of this looks very much like a Class 1 landfarm in terms of treatment zone monitoring and vadose

zone monitoring, closure standards and all. The major difference on the closure standards is that we would -- rather than adopt a separate table, which then this Commission would be charged with trying to keep up to date as the scientific basis and knowledge changes -- we would propose that you simply adopt by reference the NMED residential SSL, or their site-specific DAF using their SSL DAF of 1 multiplied by that EPA factor. And that way, the Commission would be able to rest assured that as the NMED and EPA update these factors to keep track of the best currently available scientific information, that your Rule is staying up to date, rather than adopting a table which would then have to be periodically revised as the IRIS database or other toxicological databases are updated. Other than that, this is essentially the same as for a Class 1 landfarm.

Tier 3 is the staff-proposed approach in subsection K. We believe this is an important part of flexibility. We would note that there is perhaps now less flexibility in the Rule because of a perhaps unintended change by the staff.

You heard Mr. Brooks talk about the fact that the Division was thinking that perhaps you could look at having a bioremediation endpoint used at a small landfarm if they were unable to achieve the basic approach the staff laid

out, and that maybe they could do this under the exemption approach. But you'll see that as the staff has rewritten subsection K, there is no ability now to get an exemption for that situation, because it only applies to permitted facilities. Of course a small landfarm is not a permitted facility, so there would be no mechanism available to the Commission. And so as you evaluate the staff's proposal for that, you may wish to evaluate whether to broaden that to allow that accommodation that was suggested by the Independent Petroleum Association of New Mexico.

So, what is all the shouting about in this hearing? Why has this hearing gone from its originally scheduled two days to eight days of testimony, multiple experts, and probably more than you ever wanted to know about landfarming and bioremediation endpoint and weird soil invertebrates?

Well, there are really six issues that it's come down to, and those are:

What are the appropriate chloride limits?

How do we handle the 3103 constituents in your responsibilities as a constituent agency of the Water Quality Control Commission, and the issue of the staff's recommendation of a DAF of 1?

The appropriateness of a bioremediation endpoint.

What is the best trigger for corrective action?

Closure and re-vegetation, concern to our landowners through the state.

And small landfarms.

So I want to spend just a couple minutes on each of these.

Chloride really raises two issues, the protection of groundwater and re-vegetation. The industry committee believes that the best science has been presented to you on the groundwater issues. Dr. Stephens presented an extensive review of how the groundwater regime works here in New Mexico. We talked about where we get recharge, at the mountain front and then at the local areas along the washes and arroyos that we have across the state, and that we have more of a diffuse recharge in the other areas through there.

We talked about the fact that preferential pathway flow is almost always found in a saturated soil condition, which is more likely to be found at mountain front or in the local recharge along the arroyos, and less likely to be found in the areas of the broad, diffuse, plainer areas, if you would.

He then presented modeling, and he presented modeling showing that if you use -- using the standards that's proposed for the re-vegetation and all, that we could see levels into the 9000 or even as high as 51,000

would be protective of the groundwater. Now obviously it would be very hard to have 51,000 and also have re-vegetation, we certainly agree with that, and so you'll see that the industry committee has not recommended any number nearly that high.

So what we have done is, we have proposed that we retain the 1000-milligram-per-kilogram limit for Class 1 landfarms, because we agree with the staff that that's very protective across all of New Mexico.

And for the Class 2 landfarms we recommend using that site-specific evaluation, using the EPA 90-percent table and multiplying that by the NMED SSL 1. And that's actually what that SSL 1 is for, is to multiply, then, by a site-specific DAF. And that gives you a number which is going to range generally somewhere between 1 to 20. So it is going to be, in general, a fairly protective number across the state, frequently lower than 1000 for larger facilities, perhaps slightly higher than 1000 if you had a small facility. It would be higher than either the 2000 or the 5000 that's been proposed for the small landfarms, if you were to actually apply that EPA table to the SSL 1 that the New Mexico Environment Department has done.

Why do we recommend that the Commission adopt this, rather than the staff's flat 1000-milligram-per-kilogram? Well, the reason is that it makes it much more

finely calibrated. There is -- we know that you're going to have a certain amount of chloride that may come down, and we know that there's a certain amount of groundwater flow, and that could be approximated by the relative area that you're looking at.

And this gives us a way to come up with one that provides a little bit more flexibility but with not much increase in risk to the state, and without much increase and burden on the staff, because already the permit application will require the permittee to state what's going to be the final area of their facility. And so that's all information that's readily available to the staff.

Now you say, Well, what about the cumulative impacts that we've heard about as being a potential concern? Well, the only record evidence on cumulative impact is from Dr. Stephens who looked at, well, what's the impact of looking 200 feet downstream from a 2-acre small landfarm? and found that at even 200 feet it had already fallen by 25 to 30 percent of the modeled concentration, and that's only 200 feet away.

And so you as members of the Commission can rest assured that even if we were to have several small landfarms located close to each other, the likelihood of a cumulative impact that would be of concern to the

groundwater is not that great, because there's other conservatism built into this model. For example, the assumption that the waste in the landfarm would extend from the land surface all the way, through all 50 feet, down to the groundwater. That's not the case, we know that it's going to be confined to the upper two feet.

And so there's many, many conservative assumptions in here that should allow you to make the decision based on all the information in the record, that this is adequately and appropriately protective of the groundwaters here in New Mexico.

The second issue with chloride, and one that's been discussed a lot is re-vegetation. Now Dr. Sublette showed that we can bioremediate with fairly high levels of chloride, and he talked both about the fact that the microbes are generally chloride-tolerant and that they will shift their population around to appropriately -- just so they'll have more of the ones that can handle whatever the chloride loading that may be there.

He also talked about how by appropriately tilling and watering the landfarm you can push the stuff around a little bit to help make the bioremediation process go faster. And that's all fine and good, but I don't really think that's the issue here.

The issue is, what about the plants, re-

vegetation, when we're ready to close our landfarm? And here the solution is really to adopt the approach that New Mexico Citizens for Clean Air and Water have urged, which is to have a soil EC of 4 and a SAR of 13 and then to address the solid-phase hydrocarbon issues with a less-than-1-percent limit for that. That provides you as the Commission with a pretty good assurance that we're going to have a soil body present that will be able to support long-term vegetation.

Further, I want you to go back and think about Dr. Stephens' presentation at the beginning where he talked about what does the land look like in New Mexico to begin with? And throughout New Mexico we have the chloride bulge. And what that shows is that we can have elevated levels of chlorides present in the soil, and that once we have re-establishment of the vegetation, pretty much they hang in a horizon about 10 feet or so below the land, and most of the time it doesn't come up.

Could it come up? Possibly. How frequently is that going to happen? The best information we've been able to say from looking at the models and having Dr. Stephens go through it is, not very often, if at all, if it's handled in the manner that's laid out here.

And so the industry committee's approach is actually a little bit more subtle than that from the staff

or which others have presented here, because we're saying you need to look at it two ways: a slightly larger limit which provides protection of the groundwater and then a more stringent limit for the rooting zone of where we're going to have the plants. But having that ability to have both gives us a lot more flexibility on how much material can be appropriately landfarmed.

And there are a lot of benefits of landfarming. We're going to talk about that when we get to the bioremediation endpoint, because landfarming will do something for you as members of the Commission that landfilling and our other approaches cannot do, and that is eliminate toxicity by destroying it. Every other approach we have is simply an immobilization approach, which means we're simply storing it for future generations to have to deal with. An appropriately operated landfarm, we actually can cause that to go away so that it will not be an issue for future generations. And that is a powerful reason for us to consider extending some flexibility to eliminate a toxicity issue for all time, and that's within our ability to do with landfarming.

So basically, I think that's the major issues that the industry committee really wants to stress in its discussion of chloride. We understand that there are some issues we think that we have by working with our experts

and with members of the environmental community come up with a way that could be protective of everything that the Commission is called upon to protect, the surface environment and the groundwater.

3103 constituents. Well, the first issue is, why do we need to consider the 3103 constituents? And of course the answer to that is that, well, the Water Quality Act tells us that you need to consider the 3103 constituents.

And what have we learned about that? Well, we know they're typically not present in crude or condensate. They may be present if they're mixed with something else -- for example, oilfield service waste -- but there is no evidence, members of the Commission, that they are present in concentrations of concern in that case. All you had was a qualitative survey to say, was there any hit of these different constituents in some old wastes that were gathered in the 1990s, 1990 period. And so we don't know that any of those were actually present at levels of concern.

And Dr. Thomas, who worked on the most comprehensive study of oilfield waste, the one that was conducted by Louisiana, was able to tell you that based on all that data there really was nothing of a human health or an environmental health concern in that. That's what the

record data is on that.

So your record says, yes, they're there, but they're not there in very high concentrations if they're there at all, and they're probably not there in oil and crude oil and condensate.

What then is going to be the most appropriate resolution for you as the Commission, given that you have all these factors that you're supposed to consider?

Well, the industry committee solution to this really is, well, let's monitor BTEX and chlorides as indicators of the others. BTEX because it's a very volatile, fairly mobile constituent; and so if we find BTEX moving, that will give us a good idea of what our other volatiles are doing. Chloride doesn't really attach to much, and so it is a good indicator of our inorganic mobility. And so we can use those as appropriate indicators for the whole suite of the 3103 constituents.

We can disregard the other 3103 constituents for our Class 1 landfarms and small landfarms that are basically only handling crude and condensate, because we don't really expect to find chlorinated compounds, lots of metals or other stuff in them. That's pretty much been agreed, most of the testimony that you've heard.

For Class 2 landfarms where there's a possibility that those things may be present, then it is certainly

appropriate to go ahead and extend the 3103 provisions to that. But let the landfarm operator demonstrate that perhaps some of them may not be appropriate. For example, uranium or PCBs, which may be extremely costly to test for, 1500 bucks a PCB test, for something that is not really in commerce anymore at all.

Closure standards. The last issue that the industry committee really has on 3103 is the use of the SSL DAF of 1 from the New Mexico Environment Department. This is really not appropriate. If you read through both the EPA and the NMED user's guide for this, you'll see that the SSL of 1 is provided as a calculating convenience, and in most cases they thought that a DAF of 20 would be appropriate for most situations.

Now the industry committee, as you may recall, had originally proposed that we come in with a DAF of 20 for across the board. And as Mr. Price and others of the staff observed throughout the hearing, that some of these landfarms could potentially get to be pretty big. And so we acknowledge that there's some force in that observation, and so what we've recommended now is that rather than use a flat DAF, which may not be as protective as we would all want for a 500-acre landfarm, to use that area-specific one from the table that Mr. Price presented, which causes the DAFs to go down.

And if you have -- or you will have shortly a copy of the industry committee redline version, you'll see that when you flip to the closure section, G.(6), that we have actually reproduced that table here so that you can look and sort of see what you are. And so for the smallest area which we propose, a quarter acre, the DAF would be 644, which is a lot, but a quarter acre is very small. But if you get up to 69, suddenly your DAF is only 2. And so it drops quite rapidly as you get to a larger and larger area. By the time you reach 1 acre, 1.1, it's down to 60. So you can see it drops exponentially down.

And we believe that that is a more appropriate solution to the question about what is the appropriate dilution attenuation factor to use here in New Mexico than trying to adopt a blanket 10 or 20 or 17 or 15, but rather to let that ride a little bit on the proposed size of the facility. And we think that will also give you additional protection on the cumulative risk side as well. And it's also easy to administer. It's a look-up table, and that's helped, and you can interpolate the standard equations.

The next issue, bioremediation endpoint. We think that the science that's been presented, and even the staff's agreement, is that the best science is that if you use a bioremediation endpoint, that would be the best way to do your landfarming. Good gardening keeps the bugs

happy, causes the fastest rate of decline and probably the greatest rate of overall reduction.

Salinitro and the other studies show that bioremediation eliminates toxicity from the hydrocarbons, and there's no contrary evidence in the record at all as t that fact.

There've been a couple of putative issues, and we think those have all been addressed. We know from the staff that in their opinion dry landfarming generally works in New Mexico. We think that gives you a good idea that there's proof of concept.

There's been some questions, including from the industry committee, about whether they can achieve that 100-part-per-million old standard, and we think that Mr. von Gonten's data shows they can't, but it does show that there are substantial reductions that are being achieved. So we know that landfarming works in New Mexico, even if it doesn't have the added benefits of some of the additional moisture and nutrients that the bioremediation endpoint will call for. So fundamentally, members of the Commission, you're dealing here with a process we know is going to work.

We know that the toxicity issue has pretty much been addressed by the multiple studies. Dr. Sublette cited studies, all from peer-reviewed scientific journals, using

a multitude of potential endpoints to evaluate toxicity, toxicity for plants, toxicity for worms, toxicity using microtox, and a whole bunch of other evaluations as well. All those showed that at the time we reach the bioremediation endpoint, we pretty much have addressed the toxicity from the hydrocarbons.

Lastly, hydrophobicity. Dr. Sublette's uncontradicted testimony is, that's addressed by the addition of organic matter, and there's really nothing else in the record on that.

Also you have to remember that Dr. Neeper's concern is that there needs to be a re-establishment of vegetation. Industry committee is recommending to you that we establish that vegetation standard as a requirement, and that we set up pretty good qualities so that that vegetation has the greatest chance of succeeding.

So all of this suggest strongly that hydrophobicity is not going to be a long-term issue at a bioremediation endpoint. We've put in place all those things that are necessary to defeat.

And the last thing that's very, very important is that it is always, easy, members of the Commission, to talk about the things that are weird in the world. In this study we found an incidence of hydrophobicity. But what did the person who is doing that study say? I had to

search long and hard to find sites where it had occurred, and that an overall evident occurrence was very rare. So we're dealing here with something that is not a common occurrence and which has an easy resolution as addressed by Dr. Sublette.

Eighty-percent reduction. We've heard a lot about 80-percent reduction. Dr. Sublette in his studies have shown that the 80-percent reduction requirement could preclude bioremediation of most New Mexico crudes, and there's really nothing in the record evidence before you that's contrary to that.

And the question that I have for you, members of the Commission, is that we know that bioremediation works, so why would we not want to use it? It's our best tool for reducing hydrocarbon toxicity. And so standards that are arbitrary or policy-driven, as Mr. Brooks characterized it, we should really think long and hard about do we want to do that where we are limiting our most effective tool for the elimination of that toxicity?

So I think that's a challenge for all of you as you sit there as the policy-makers of this State, saying, Do we want to limit this tool, or do we want to go ahead and give it some space and flexibility so that more of our material that could be treated and have that toxicity eliminated can be done.

Hydrophobicity we've talked about. It's addressed by the 1-percent TEPH standard and the re-vegetation standard. On the enforcement side we've heard some issues about that. But we know basically that the dry landfarms work, which is once again proof of the concept, so that even if we had a bioremediation landfarm that was ignored, it's going to get at least as much attention as a dry landfarm does, and we know that we're seeing reductions in those, and so therefore there's not that much risk to you as the members of the Commission in providing for this souped-up, better-managed and better-cared-for, or better-gardened, landfarm than there is with the existing dry landfarm.

Moving on more quickly, then, to the end, corrective action trigger. Fundamental issue here is, we don't want to preclude landfarming because of how we've set up our corrective action trigger.

Background is too stringent. Dr. Stephens testified that some constituents would be seen, Dr. Neeper agreed we'd offgassing and diffusion that would cause us to trigger what the staff had proposed.

What we don't want to do is set up a situation where OCD gets a corrective action report and then is going to be vulnerable to accusations from the general community that, hey, you've got these corrective action reports and

you didn't do anything. Well, maybe not doing anything is the appropriate result. But why set the staff up for a situation of failure where they then have to explain why they didn't do something because we've adopted an incorrect standard in the first place? This is a situation where it would be better to adopt a standard that is more realistic so that we limit the number of times where we trigger the corrective action to where there really is something of concern.

And so we agree with the New Mexican Citizens for Clean Air and Water that the closure standard is probably a better thing to use.

And why is that okay? You may say, well, gee, closure means that there's a problem. But the issue is still going to be confined relatively to the shallow surface. And you have to remember that the time frame to reach the groundwater, which is the expensive part of the cleanup, is very great. Dr. Stephens did the calculation, about 760 years, for example, for a small landfarm. That's a long time for us to scratch our heads and come up with the appropriate solution before we're going to have any endangerment to the folks downstream or downgradient in that groundwater.

So there's some time, there's ability by the Commission to give the flexibility necessary to really

allow this program to work and to achieve the reductions in toxicity.

The other thing to remember is that the closure standards are still going to be protective of groundwater across the board, basically. That's what they're set up for, that's why we have the chloride limits at the front end of the process and not just a the back end.

This is just some more information about it, and I think we've pretty much talked about that.

Closure and re-vegetation. We've talked a lot about this, but really want to just re-emphasize for you the agreement between the industry committee and New Mexico Citizens for Clean Air and Water, which is to restore the surface, 70 percent, or the background cover percentage. Okay, if you only have 50-percent background cover, then we would only have to achieve 50 percent. Three native species, including one grass. We think that that's very achievable.

The EC of 4 and the SAR of 13, solid phase hydrocarbons less than 1 percent with no piece greater than a half inch in size. I think that that provides a very robust area for rooting of our re-vegetation and then subsequently re-establishment of the traditional New Mexico groundwater regime that Dr. Stephens talked about at the beginning of his presentation.

There are some things that we don't agree on. The industry committee does not in any way agree with Dr. Neeper's proposed 520-milligram-per-kilogram chloride limit. And the reason that we don't agree is that a landfarm is a treatment unit, and so therefore what we don't necessarily want to do is to start everything off by saying you have to start with your initial waste at the closure standard, because if we're doing that, then we don't really have any ability to do much treatment.

And so what we don't want to do is, by adopting standards that are so stringent on what can go into the landfarm, force everything to the landfill, because that's the only alternative that, members of the Commission, we have. There are only really two things we can do: We can landfarm, or we can landfill. And while our friends from CRI, I'm sure, would love to accept everything that we could send them, we have to evaluate whether that's really in the best interest of the industry and of the State, is to force everything one way or the other. In this case, we would respectfully submit that we need the flexibility to have the landfarming option.

Lastly, we think that it's important that if we're working with a small landfarm on the actual wellpad itself, that we not be forced to re-vegetate our wellpad while we're using it as a wellpad. That may seem obvious,

but it's an important consideration if you're going to do a very small landfarm, actually, on the wellpad.

And same thing, you may have agreements with a landowner where they have a different use in mind or they may be proposing to restore it for another purpose, and we think that where those agreements are acceptable, that they should be honored, where the landowner has a different idea.

Lastly, small landfarms. And we're getting close here to the end. Size should increase to the 2 acres and the 6400 cubic yards. Reason is both for ease of operation -- we're trying to use farm implements, which are not small, and if we're going to do it effectively we really need to have something bigger than a Roto-tiller -- and the 6400 cubic yards allows us to consolidate some more material than just a single spill.

Industry is not interested in having spills. Spills are not our friends, it's our product which is going on the ground, which is lost for our revenue. But we also are not interested in having a plethora of little remediation sites spread out across that. That's not our goal.

What we'd like to have is the flexibility that when it make sense, when it is environmentally more responsible for us to take that material and move it to a

small landfarm and perhaps centralize a couple of those where we can give it better care and attention, that we can do that. We can't do that as the Rules are presently defined. Rules 116 and 19 require us to remediate onsite, and if that's not the best site we either have to then send it to a permitted landfarm or to a landfill, and we'd like to have the flexibility that the small landfarm provides.

We agree with limiting it to predominantly hydrocarbon-contaminated soils. But we urge the Commission -- and this is very important, because this is an area where practicality needs to play a role -- one of the things that we saw was a prohibition on any cuttings in a small landfarm. We really urge the Commission not to include that.

We're not interested in putting cuttings in a small landfarm, but if we're cleaning up a small spill around a pit or something like that, there may be a very small incidental amount of cuttings that are present there. We'd hate to lose the ability to put that otherwise crude oil spill in a landfarm because somebody can find a pound of cuttings in it. And if you put an absolute prohibition, then we would have to send that to a landfill or to a permitted landfarm.

And so what -- our recommendation is simply that you use the words, limited to predominantly hydrocarbon-

contaminated soils, which means that what will mostly go in there is only soil contaminated by either condensate or hydrocarbon.

We're recommending flexibility for the chloride loading with the two size/mass loading limits based on the modeling that you've already heard from me about, with the re-vegetation standard to address the surficial issues and make sure that we don't end up with spots that can't re-vegetate in the future.

And finally, we really would urge you to make the bioremediation endpoint available to the small landfarms. If dry landfarms work, then there's virtually no risk to you as the Commission that a bioremediation endpoint landfarm, which is better managed, won't be an improvement.

Well, the last thing I want to talk to you about is, you've got all this different information, you've got numbers from us, you have numbers from the environmental community, you've got numbers from the staff, sometimes you have multiple numbers from all of us as we've learned things going through the hearing. Well, how do you decide what to do?

And these are some factors that we really recommend to you.

Mr. Carr spoke quite passionately about your statutory charge, prevention of waste and protection of

correlative rights. And then he noted that you're also responsible for protecting public health, fresh water and the environment. On that last point we suggest that you use EPA's analytical approach to when they adopt a rule, and they look at issues of:

Safety

Implementability and feasibility

The short-term effectiveness of your proposed Rule

The long-term effectiveness of your proposed Rule

Will there be a reduction in toxicity and mobility?

Cumulative effects

And cost, are factors that they look into a their template.

So if we look at that template -- and this is really hard to read, so for those of you who are reading the screen, I apologize. For the Commission who has it to read, they can see it there.

For safety, I think that you'll find that the landfarming, we believe, may reduce worker exposure. And that is that if you don't have a landfarm with a bioremediation endpoint, then you may be forced to dilute your materials before you go in, and that means having to go in and work with a higher concentration of stuff to

bring it down to the level that you can actually put it in your landfarm. That's how we get stuff into landfarms right now, with a very low initial threshold, is, you take it and you mix clean soil in until you bring it down to the threshold.

Now we don't like that dilution approach, because we're taking uncontaminated -- and contaminating it for the purpose of meeting a regulatory requirement, and we have some qualms about how appropriate that is.

On implementability and feasibility, we think that the loading factor is a significant problem and that the 80-percent reduction makes it impossible to remediate most crudes that are legitimately here in New Mexico. And so we think that the implementability and feasibility of the OCD proposal in that regard is not so great, and so we urge you to consider the bioremediation endpoint suggested by the industry committee in this case.

We also believe that the chloride limits will require extensive landfilling, because the lower you lower -- each time you lower the chloride limit, the only alternative is landfilling, because we can't put it in a landfarm, we can't evaporate soils, we can't put an evaporation pond, so there's nothing else we can do with it.

And so you have to really think about that. The

chloride limit that you establish is going to determine what percentage of all the stuff in New Mexico is going to have to go to a landfill. That's what you're deciding right there. So you need to think about how many trucks is that, what's our available landfill space, all those issues, when you set that chloride limit. That's why we believe that it's so important to have some flexibility on the chloride side.

Short-term effectiveness. Landfills are an excellent short-term solution, absolutely no doubt about that. Landfarms are a reasonably good short-term effectiveness. Obviously they have a period when a landfarm has higher concentrations exposed to the surface than a landfill does, so perhaps there you'd say a landfill would be a better thing, and maybe the OCD proposal which favors landfilling in this regard is a better choice.

In long-term effectiveness, though, it's the other way around. A landfill merely takes that and segregates it and saves it for the future, whereas a landfarm actually eliminates the hydrocarbon toxicity. And so in the long-term effectiveness, we think a landfarm is superior to a landfill. So we think that the long-term effectiveness factor really weighs in favor of more flexibility and more landfarming.

In terms of reduction in toxicity and mobility, a

landfarm gives you a reduction in mobility, a landfarm gives you a reduction in toxicity. As between reduction in toxicity and reduction in mobility, the reduction in toxicity is the better environmental endpoint, because that eliminates the problem from the git-go. And so we think that that factor also weighs in favor of landfarming.

On cumulative effects, hard to say, so it's probably a was. We don't think that one really goes much to either direction.

Costly -- on cost, we're concerned that the staff's proposal, which would tend to send more waste to a landfill, could be very costly to the industry, particularly because landfill capacity is not infinite, and there is a definite limitation on supply. And if we increase the demand, we know what's going to happen to the cost. That's just basic economics.

So those are some factors that we would really hope that you as members of the Commission would think of in terms of your framework for a decision as you look at all the different things that have been put in front of you.

So this is why we believe that the industry proposal is superior and worthy of consideration by you as members of the committee [*sic*].

First, it provides a risk framework to guide

agency resources. That does a couple of very important things for us. It gives us a common framework that we can talk about as the Commission, as the staff, as industry, as the environmental community, and as other people who are stakeholders in that process.

Once we have a common language, then, it's easier for you to make appropriate policy decisions and for all the rest of us to then conform our actions to what your policy decision is. And that's a very important thing that we think this could help start the Commission moving towards.

Second, we think that it's better on the factors that EPA looks at. It discourages dilution. Dilution right now is how we meet some of the standards. You heard Dr. Sublette testify for that on the landfarms. Dilution is not an environmentally desirable goal; treatment is what we really want to have.

It avoids the correction action trap where we know we're going to go into corrective action but there's really not much we can do about it. It would be far better for all of us, set a more appropriate corrective action trigger where corrective action only occurs when there is really a problem, and that way we don't defer scarce staff resources to tracing issues that may not really be an issue.

It provides for more treatment while still addressing the chloride concerns. You've seen extensive modeling from one of the leaders in vadose zone hydrology in certainly New Mexico if not the Southwest. You've seen that it's conservative, based on the EPA's national models, and we've seen that it is consistent with how water and chloride flows in the New Mexico environment naturally.

The short-term effectiveness is probably almost as good as a landfill, but the long-term effectiveness is far superior because we're eliminating toxicity.

Landfarming reduces toxicity, it is your most potent weapon towards reducing the toxicity of hydrocarbons.

And landfarming is lower in cost.

Basically it comes down to this, members, of the Commission: We know that landfarming works. And that means that at some extent the risk to you of expanding that concept to include the bioremediation endpoint, which is the direction that EPA and IPEC and all the others are trying to take this, is very low.

And you also heard some great testimony and some example from Dr. Sublette about some of the benefits that they'd seen as they moved to this approach with more understanding of the simple tools from smaller operators. They could understand what they needed to do, and so they

started to respond and do it right. And so from an overall regulatory perspective, if you're trying to adopt a program that encourages small, less sophisticated operators to handle their material right, this is a good proposal for you, it's something they can understand and can be reduced to very simple good gardening practices.

So for those reasons, members of the Commission, the industry committee respectfully urges that you give their proposal some consideration and adopt that as your final decision.

CHAIRMAN FESMIRE: Commissioner Bailey?

COMMISSIONER BAILEY: On one of your early slides --

MR. HISER: Yes.

COMMISSIONER BAILEY: -- the second one, you're recommending background testing for TPH+GRO, or GRO, not for TPH total?

MR. HISER: Right.

COMMISSIONER BAILEY: Could you refer me to testimony which gave good data for re-vegetation levels of the TPH GRO+DRO?

MR. HISER: There was a little bit of testimony by that, by Dr. Sublette, and to some extent Mr. Price addressed that as well in his discussions. Where the industry committee came down finally was that it was most

appropriately addressed with the total extractable petroleum hydrocarbons in the closure standards that you see presented as the less than 1 percent. At that level there does not appear to be a substantial adverse effect, if any adverse effect, on vegetation.

Why we're doing TPH, GRO or DRO here is because that is the best measure of landfarm performance, and we're using a closure test of 1-percent test at the end to make sure that we're going to be able to meet the vegetative.

COMMISSIONER BAILEY: And so your TEPH of less than 1 percent will be covered in Dr. Sublette's --

MR. HISER: Yes, that's addressed in Dr. Sublette's testimony, and in his rebuttal work, I believe, as well.

COMMISSIONER BAILEY: Repeatedly, you said landfarming works. Over and over, you've made that point. Are you referring to landfarming using bioremediation or are you referring to dry landfarming? Because I see no re-vegetation on those slides with dry landfarming.

MR. HISER: An excellent question, Commissioner Bailey. Certainly we know from the work that's been done by IPEC and EPA and the research center there that the bioremediation landfarming works.

In terms of the dry landfarming that's presently going on in the state, we know from the testimony of Dr.

Sublette, and to a lesser extent Dr. Thomas, that we would expect that to work for particularly condensates, which are very light-end and hence the volatilization and the other physical processes, will be successful in removing most of the light-end hydrocarbons.

For heavier hydrocarbons, the crude oils and all that, the dry landfarming will work to some extent. You may have heard Dr. Sublette express some concern that some of that may be a polymerization which simply is causing it to disappear from the testing, which is why he favors the full-fledged bioremediation endpoint.

On the other hand, we also have to give some credence to the work that's been done by Mr. Price and his staff of having gone out and evaluated the dry landfarms and finding that, by and large, they seem to be achieving some -- at least 1000, though I don't know the -- we saw very much achievement of the 100-part-per-million level, but certainly some of the 1000. And so we think that there's certainly some technical evidence that supports a dry landfarm works as well.

With respect to the re-vegetation issue, that's a harder one, and I can't speak authoritatively over it, but of the pictures that you saw, none of those were closed landfarms, where re-vegetation would yet be expected. They were all still -- and so re-vegetation would not be a step

that they would be expected to be taking at this time. So I would be surprised to find vegetation on the...

COMMISSIONER BAILEY: That's all I have.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: I have no questions.

CHAIRMAN FESMIRE: Just a couple. The TPH endpoint landfarming, we know it works in Louisiana, some places in Oklahoma, right?

MR. HISER: You mean the bioremediation endpoint that --

CHAIRMAN FESMIRE: Bioremediation endpoint.

MR. HISER: -- Dr. Sublette talked about? Yes.

CHAIRMAN FESMIRE: But we don't know for sure that it works in New Mexico, and you're asking us to jump head first into a pool we don't know how deep is. Is that an accurate characterization?

MR. HISER: Respectfully, Chairman Fesmire, I don't believe so. The process by which a bioremediation landfarm works is well understood. Those processes are equally valid here in New Mexico as they would be in Oklahoma or Louisiana.

The major difference that we have here is a slightly more arid environment, which may perhaps require more water. But we know that fundamentally here in New Mexico, because we do have bioremediation in the dry

landfarming sense that occurs, we know that the microbes are present, because they are pretty much endemic throughout the world. That's Dr. Sublette's testimony. Therefore we know that the microbes are available and that bioremediation will occur.

We know that we can facilitate that bioremediation by the addition of nutrients, nitrogen and phosphorous, which gives them the other parts that they need in order to properly digest the hydrocarbons and make into food, and then that converts it.

And we know that by adding moisture we can facilitate that process as well. And we know that with the appropriate addition of organic matter, if necessary, we can address other things that may arise like hydrophobicity, if you had a very high concentration initially of that.

So the processes are all well understood and there is no reason that they should not and would not work here in New Mexico. And I think the answer to that is, can we grow irrigated agriculture in New Mexico? And the answer to that is, yes, we can. And as he pointed out, if you can grow crops, you can grow bugs.

CHAIRMAN FESMIRE: Okay, but we've got the same point. You're asking us to adopt a plan here that would basically put -- for lack of a better phrase -- hundreds of

small, moderately small, landfarms out there to use a process that, while theoretically it may work, it hasn't been proven in New Mexico.

MR. HISER: If you wish to put it that way, you could, Chairman Fesmire, but I would say that you're starting from a false premise. And the false premise is this, which is, where -- what is going to go in all of those hundreds of small landfarms that you're proposing might suddenly appear? I would submit to you that that is all the hundreds of spills that may already be occurring, which are already being remediated underneath the Commission's orders. And so in effect, that's already happening.

What you're getting with the bioremediation endpoint landfarm is a lot more control and a better process for that than may presently exist.

CHAIRMAN FESMIRE: Right. But I don't think the argument is whether or not it works; I think the argument is whether or not we can accurately measure and find out when we get to that endpoint, and that the TPH -- the bioremediation TPH endpoint proposals that are in the industry proposals are -- could -- if the process doesn't work as it is presented theoretically, could result in a whole lot of places out there that aren't really being remediated. Is that accurate, or would you --

MR. HISER: No, I would -- I guess, Mr. Chairman Fesmire, that I don't think that's likely to be the occurrence. Now, can I tell you a hundred percent guarantee that that would never occur? Absolutely not. It's just, you know, not that way.

But -- and this is the but, if you'll let me get my but in.

CHAIRMAN FESMIRE: Get your but in.

(Laughter)

MR. HISER: Thank you. It's this, which is that the light hydrocarbons, we know, are going to go away, whether we bioremediate it or not. So the only thing we're going to be looking at is the more -- longer-chain hydrocarbons. For that, we know that those are a lesser toxicity concern. We also know that regardless of where the bioremediation endpoint comes out, the industry committee has suggested that you use a 1-percent TEPH, and so there's not a lot of stuff that could be left, in this. You have a good check on that with that 1-percent TEPH.

So we're not asking you to take this wholly on faith. We've got a process that you know is going to work just because we have sunlight and we have tilling, and -- that's been going on here -- and we have the added benefit of what's going on in the bioremediation stuff, which should make that even more effective. And so the risk is

not very high.

CHAIRMAN FESMIRE: Well, let me get *my* but in.

MR. HISER: Certainly.

CHAIRMAN FESMIRE: It works, you know, when properly maintained. And we're -- right now, one of the things, one of the problems that OCD has is a lack of inspectors for the facilities we have to inspect now. To add an additional number of -- you know, let's say hundreds at first -- of facilities that need to be inspected and maintained and they have to be turned over every two weeks, if I understand Dr. Sublette's proposals correctly, they have to be watered, and we have problems getting the water out there. They -- You know, they take a lot more care than what we've got now.

Now it's going to be more complicated to inspect, it's going to be more complicated to write the permits or write the -- well, let's say permits, although we both know that's not what's going to happen. It's going to take more work from the OCD. We don't have the people to do that.

How do we justify adopting a series of rules that are going to say, you've got a tremendous load -- not a tremendous, but an additional load on your staff that you didn't have before, but you now have now, and if you don't inspect it, and if you don't get out there and inspect it, people are wont to cease to maintain it correctly? How do

we ensure with the staff that we have that this is going to happen?

Shouldn't we step into it gradually? Like make the TPH -- the bioremediation endpoints a standard for the commercial and the larger landfarms and not for the smaller ones?

MR. HISER: I have about five different responses. Let me see if I can make it fewer.

CHAIRMAN FESMIRE: Well, that's fair, that was like five different questions.

MR. HISER: Okay. First with respect to staff resources. The idea behind the bioremediation endpoint -- or small landfarm, let's call it a small landfarm at this point -- is to move or consolidate a number of small spill areas into a central one. That should result in a reduction in the number of sites that the staff has to supervise. So I think at some level saying that there's going to be lots of these -- you also have to then decrease the number of 116 and 19s on the other side.

So it's not clear to me that you're looking at simply an increase. I think it's a little bit more of a complicated picture than that, and it may be much less of an increase than you think.

Second, there are the safeguards of the 1-percent TEPH standard which you already talked about. But there's

another safeguard too, which is that we are proposing that they have to go through a minimum treatment-month regime, six months for condensate and 12 months -- 12 treatment-months for oil before they can try to close.

And that gives you a reasonable assurance, as well, that a substantial amount of bioremediation has occurred. And those numbers were chosen based on Dr. Sublette's familiarity with the overall bioremediation work, about how long does it take, and he chose longer than what is normally taken to get to that point, and that gives you a better assurance, well, that we're actually going to have stuff taken care of at the end.

And I'm afraid that in my answering those two, I've now forgotten what my other three were.

CHAIRMAN FESMIRE: Okay. I guess to sum up my concerns is that we're being asked to accept a technology that may work other places but hasn't been proven here, that could be incredibly labor-intensive.

And the telling factor to me is that Dr. Sublette told us that we wouldn't be able to reach the endpoints that we have -- we believe that we have reached; I understand there are some arguments about the sampling and what we were sampling for. But it looks to us like at least in 18 -- I mean 17 of the 18 samples, that we had reached a point that Dr. Sublette had told us theoretically

we couldn't reach, and now we're being asked to put an awful lot of faith in this theoretically unproven in New Mexico technology. That concerns me.

MR. HISER: Well, we've already discussed the theoretically unproven in New Mexico, which the industry committee doesn't agree with you as your characterization of that.

CHAIRMAN FESMIRE: And I would be a lot more comfortable with that if they'd told us that before we did the sampling and found the answer.

MR. HISER: Well, it's unclear to me exactly what your concern is. Your concern is that the dry landfarming appears to be achieving these relatively low numbers, and so why should we adopt the bioremediation endpoint?

CHAIRMAN FESMIRE: No, my concern is that we're going to devote our resources and jump, you know, head first into this TPH bioremediation endpoint standard and, you know, develop these Rules, start our practices, and it is a technology that while theoretically it should work, it is unproven in New Mexico under these conditions. And theoretically -- you know, and there is this tail to that dog out there, that we were told that none of the sites that we had already remediated would be able to achieve standards that we think they did achieve. Now I know the argument.

But you know, I'm being asked to place an awful lot of faith in a theory that I think I agree with, but I don't think we should jump headlong into it. If we're going to go into it, it should be one piece at a time, and the best way to do that is to address the larger commercial landfarms, you know, where we actually have somebody there, where we -- you know, they're easier, less labor intensive to inspect, and that kind of thing.

My concern is jumping into a -- you know, buying a whole warehouse full of Betamax recorders, okay? That's my concern.

MR. HISER: I think that the answer to that, Chairman Fesmire, is the experience in Oklahoma and Arkansas where this approach has been used. And that experience, related by Dr. Sublette from his work with the state oil conservation commissions in those states, is that they had seen a significant improvement in the small operators, operating small spill sites, and thereby handling stuff. Rather than hiding it, they were now addressing it because they understood what they needed to do.

And that's really the benefit that this has for you, is the ability to take the small sites, give them some simple gardening steps -- the IPEC guidelines, basically -- and let them deal with the problem up front and not be an

enforcement issue at the end of the day when you discover it three years later while you're out there for another purpose.

And so I think that there is a lot of good governance benefits from this proposal that you need to sort of weigh against whatever risk there may be. Because if we make it simple enough that the small folks understand what they need to do, we may have an improvement in voluntary compliance. And that's fundamentally -- given the staff available to the Commission, anything that you can do that encourages voluntary compliance is probably a good idea.

CHAIRMAN FESMIRE: But the TPH endpoint -- but bioremediation endpoint is not going to ever be simpler than the, quote, dryland farming that we're doing now? I mean, it takes care, it takes resources, it takes attention and it takes -- both from the operator and from us.

MR. HISER: Particularly from the operator. I think that from you, that most of that can be assessed from reading the final report, which is, What was the date that you started? What was the results you saw? Were you within the appropriate treatment months? And looking at the analytical. I don't believe it would require that you have an onsite visit; I think it could be addressed by a photo and the report, which is the same thing that Dr.

Sublette testified to as well.

CHAIRMAN FESMIRE: Okay. Well, you understand my concerns --

MR. HISER: I understand your concerns. I may not agree with them, but I understand that they're your concerns.

CHAIRMAN FESMIRE: I have no further questions.

Are there any other questions of this attorney?

Mr. Hiser, thank you very much.

MR. HISER: Thank you, Mr. Chairman, members of the Commission.

CHAIRMAN FESMIRE: I guess, with one exception, we're to the point where we have to start talking about where we go from here.

We have asked the -- Let me check --

(Off the record)

COMMISSIONER BAILEY: While they're talking, I'd like to make a comment.

In all the years that I have been on the Commission, I have never seen this level of effort, this level of expense, and this level of expertise that's been shown in testimony before the Commission. It is amazing to me the amount of high-level technical testimony that has been given by all parties. I want you to know that I do appreciate the fact that you brought in PhDs who are

recognized experts in their field to give testimony at this hearing. I also would like to commend industry and the New Mexico Citizens for Clean Air and Water on the effort to find some balance, some middle ground, that you can agree on. I'd like to thank you all for those efforts that you've made.

CHAIRMAN FESMIRE: The thing that we've got to do from this point forward is, it's going to take at least two weeks to finish typing up the transcript. I'm assuming that before we do the proposed findings, that you're going to want a copy of the transcript.

On the other hand, we have pretty much told Mr. Marsh that we would meet again next Thursday. So we've got to meet Thursday at least long enough for Mr. Marsh to make his statement. Then we've got to proceed to the findings, the proposed findings from each party. And from there we have to do the deliberations.

So I think -- what I'm proposing is that we meet again next Thursday for Mr. Marsh's closing argument, give everybody else -- everybody in the audience another chance to make a statement on the record if they so wish, and then proceed with our scheduling from that point forward?

MR. HUFFAKER: May I make a statement?

CHAIRMAN FESMIRE: You may, sir.

MR. HUFFAKER: I am reasonably informed Mr. Marsh

is not going to want to have the Commission meet solely to hear him. He will probably waive making a statement, if the cause of that statement would be to bring all of us here solely to hear him.

CHAIRMAN FESMIRE: Okay.

MR. HUFFAKER: I'm not sure about that, but I can confirm it very quickly, later today or tomorrow.

CHAIRMAN FESMIRE: He seemed adamant about wanting to make a statement when he talked to us, an oral statement.

MR. HUFFAKER: We have agreed we would reconsider the need to do so after today.

CHAIRMAN FESMIRE: Okay.

MR. HUFFAKER: And now -- and what I didn't understand, and what I want to make sure he considers, is whether he knows that he is going to be the sole cause of being here. I don't know if that helps you at all, Mr. Commissioner, in deciding what to do today.

CHAIRMAN FESMIRE: Well, our problem is that we won't have the transcript ready by that time.

MR. HUFFAKER: That's true.

CHAIRMAN FESMIRE: Would he postpone making that statement for -- because we have to have at least --

MR. HUFFAKER: Oh, yes. Yeah, absolutely.

CHAIRMAN FESMIRE: Okay.

MR. HUFFAKER: And the only reason that we were looking at that date to get the statement in was, you were contemplating beginning your deliberations after that.

CHAIRMAN FESMIRE: Yeah.

COMMISSIONER OLSON: Would he care to provide a written statement? That's no problem.

MR. HUFFAKER: I think we're headed in that direction.

CHAIRMAN FESMIRE: Okay.

MR. HUFFAKER: I speculate strongly that we're going in that direction.

CHAIRMAN FESMIRE: Steve, after today's testimony, are you still thinking two weeks?

COURT REPORTER: It's going to be close, give or take.

CHAIRMAN FESMIRE: We have a special setting for a case on Monday, June 5th; is that correct?

Mr. Carr, since you're involved in that, how long would that take?

MR. CARR: I think it would take at least half a day. I've been talking with Charlie High again this week, and one day we think we're going to settle part of it, the next day we don't. So I think it would take at least half a day.

CHAIRMAN FESMIRE: Okay.

MR. CARR: At an Examiner level it took about half a day to do all three cases, two Devon and one Bass.

CHAIRMAN FESMIRE: So if we were to -- since we've already got the room, if we were to schedule half a day for that or more --

MR. CARR: If we started at eight o'clock?

CHAIRMAN FESMIRE: Eight o'clock?

MR. CARR: Yes.

CHAIRMAN FESMIRE: Okay. Would that cause any problem with the notice?

MS. DAVIDSON: No.

CHAIRMAN FESMIRE: Okay. Go ahead and meet half a day or whatever it takes, and then on the 5th Mr. Marsh can give his statement, and we can -- at that time we'll require the proposed findings, and we'll give you until then to provide the markup on the -- just like we've got today, if you want to leave this one, but I understand that you have at least one change from the copy you presented today, right?

MR. BROOKS: Frankly, I'm a little confused at this point. We did suggest some changes. Yes, we do have one specific -- you're right, we have one specific change.

CHAIRMAN FESMIRE: Okay.

MR. BROOKS: Most of the other things are just things we urged the Commission to consider, but we do have

one specific change.

CHAIRMAN FESMIRE: Okay. So the Commission will -- Will that week still be free?

COMMISSIONER BAILEY: June 5th? I'm in Tulsa the 7th through the 9th.

CHAIRMAN FESMIRE: But the 5th and the 6th?

COMMISSIONER BAILEY: Fifth and 6th are fine.

CHAIRMAN FESMIRE: Fifth and 6th okay for you?

COMMISSIONER OLSON: (Nods)

CHAIRMAN FESMIRE: Okay. Steve?

COURT REPORTER: (Nods)

COMMISSIONER OLSON: I think the 6th -- I'm going to have to check on that. I think it's okay.

CHAIRMAN FESMIRE: Okay. What we'll do is, we'll meet at 8:00 a.m. on the 5th to handle the other case. When the other case is over -- and it won't be before noon?

MR. CARR: Right.

CHAIRMAN FESMIRE: That we can say. We don't know how much after noon, but it won't be before noon. Then at one o'clock in the afternoon we'll reconvene the proposed findings -- I mean, we'll hand out the transcript then, and we'll hear Mr. Marsh's closing statement and we will take the final version from all parties of the mark-up, and on that day we will also decide when we will meet for deliberations, how long it'll take to get your proposed

findings prepared.

So what will be due on the 5th is the mark-up, and on that day we will get together and talk about how long it will take you to go through the transcript, draft your proposed findings and when we'll meet again.

Is everybody okay with that?

COMMISSIONER OLSON: Could I make a suggestion? Why don't -- If the findings and conclusions are all going to come in at one time, why don't the proposed -- everybody's final draft regulations come in at the same time, so there's just one submittal?

CHAIRMAN FESMIRE: Because it --

COMMISSIONER OLSON: It would need to be sooner?

CHAIRMAN FESMIRE: That would give us a chance to look at them individually. They can't do the proposed findings until they get the transcript, but they can do their markups, and that will give us a chance to go over them individually before we meet as a Commission.

COMMISSIONER OLSON: Okay.

CHAIRMAN FESMIRE: Okay. So at this time we will adjourn until -- on this cause, June 5th at 1:00 p.m.

COMMISSIONER BAILEY: So we are not meeting next Thursday?

CHAIRMAN FESMIRE: We're not meeting next Thursday. Okay, and we'll see you June 5th.

DR. BARTLIT: Did I understand the findings, the proposed findings, are not due on June 5th?

CHAIRMAN FESMIRE: They're not due on the 5th, but we will give you -- what we will have on the 5th is the transcript, for everybody who wants to buy it.

DR. BARTLIT: And then a date will be set?

CHAIRMAN FESMIRE: And then a date will be set for the proposed findings.

What is due is the mark-up on the draft Rules.

MR. BROOKS: Mr. Chairman, I understand that the pit rule application is not on the agenda today so you probably can't discuss it, but it would be helpful if we can get some idea when that is going to be set, if the Commissioners have their calendars available.

CHAIRMAN FESMIRE: Right now we're looking at the week of July 24th. How much of that week, we don't know.

MR. BROOKS: That was my understanding. I just wanted to confirm that that's what we're looking toward.

CHAIRMAN FESMIRE: Right. And you proposed in your closing statement that we notice the final version that the Commission --

MR. BROOKS: Of this Rule, yes, sir, that was my suggestion, I did suggest that you discuss the propriety of that with counsel, but that was my suggestion in my closing statement.

CHAIRMAN FESMIRE: So on June 5th -- and say by some stroke of luck, by the next week we can get the proposed findings and deliberate, then we put it out for notice again?

MR. BROOKS: I would think you would want to publish the draft as the Commission finally proposes to adopt it and give the public a chance to comment on it and set a date on which the Commission would take final action. And then of course, if the Commission found something in the subsequent comments that caused it to change --

CHAIRMAN FESMIRE: But we're not going to have -- We will already have deliberated on it.

MR. BROOKS: That would be my suggestion so that the public would have available to it what the Commission proposes to adopt as the final draft. Of course, obviously that procedure incorporates the possibility that the Commission might want to make some further change based on the additional public comment --

CHAIRMAN FESMIRE: And --

MR. BROOKS: -- but unless they did, that would be the final draft. I recognize it's an awkward procedure, but I just am not sure how to with the law if it is the way that it has been contended in the other proceeding that it is.

CHAIRMAN FESMIRE: Well, we will already have

gone through the process, so we will have a -- the Commission will have voted on it, and then we put it out for notice again?

MR. BROOKS: That is my theory, that you put -- you take what the Commission has decided to adopt, put it out for notice --

CHAIRMAN FESMIRE: The reason that they have to do this --

MR. BROOKS: -- allow public comment. Of course the extreme case would be to re-open the hearing, but I think unless the public comment requests a re-opening of the hearing it would be reasonably -- you would be reasonably secure in simply saying that the members of the public can submit additional comments, and then you can review those comments and make a final decision based pm that.

CHAIRMAN FESMIRE: I'm going to ask the Commission counsel here, to look at that.

MR. BROOKS: That would be my suggestion, that you consider this with Commission counsel, and I believe even in a rulemaking proceeding you can discuss legal matters with Commission counsel outside -- you can go into executive session, if you want to, to discuss legal points with Commission counsel.

CHAIRMAN FESMIRE: Well, I'm going to ask

Commission counsel to research it and send us an e-mail on what our position is on that.

But as of right now, this matter is recessed until June 5th at 1:00 p.m.

(Thereupon, recess was taken at 4:04 p.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 May 25th, 2006.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 16th, 2006