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

ORIGINAL

APPLICATION OF THE NEW MEXICO OIL AND GAS ASSOCIATION FOR AMENDMENT OF CERTAIN PROVISIONS OF TITLE 19, CHAPTER 15 OF THE NEW MEXICO ADMINISTRATIVE CODE CONCERNING PITS, CLOSED-LOOP SYSTEMS, BELOW-GRADE TANKS AND SUMPS AND OTHER ALTERNATIVE METHODS RELATED TO THE FOREGOING MATTERS, STATE-WIDE.

CASE NOS. 14784 AND 14785

TRANSCRIPT OF PROCEEDINGS

VOLUME 16

COMMISSION MEETING
October 1, 2012
Santa Fe, New Mexico

THE COMMISSION:
JAMI BAILEY, Chairperson

GREG BLOOM, Commissioner
DR. ROBERT BALCH, Commissioner
MARK A. SMITH, Esq.

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CHAIRPERSON BAILEY: It's 9:00 Monday, October 1st, 2012. We are in Porter Hall in Santa Fe, New Mexico.

This is a meeting of the Oil Conservation Commission for the purpose of deliberating the proposals made in the Consolidated Cases 14784 and 14785.

All three commissioners are here, so there is a quorum.

Commissioners, over the weekend I looked at the latest version that we have developed, and I found a lot of formatting editing omissions, things that were not incorporated that we had discussed.

So if you would indulge me, I would like to go through the draft as we have it and make some of these corrections.

I'm assuming that both of you also have some that maybe you have looked at.

So if we could just start at the top and go to the bottom. And then after we are done with that we can start addressing those areas that we have not yet talked about.

COMMISSIONER BLOOM: Very good. We will ease into it today a little bit.

CHAIRPERSON BAILEY: Right.

On page 2 of the docket -- of the document, the definition for multi-well fluid management pit, I compared the very last sentence: "Any fresh water containment structure such as a pond, pit, or other impoundment is not included in this definition," with the last sentence of temporary pit, which is on the following page.

And the very last sentence on the temporary pit says: "Any containment structure that holds only fresh water, such as a pond, pit, or other impoundment, is not a temporary pit."

I think we should be consistent in our language, and I would suggest that we use that last sentence from temporary pit as the one that we use for consistency, rather than what we use currently on the end of the multi-well management pit definition.

COMMISSIONER BLOOM: Should it go from "any fresh water containment structure, such as a pond, pit, or impoundment, is not included in this definition," to "any containment structure that holds only fresh water, such as a pond, pit, or impoundment, is not a temporary pit"?

CHAIRPERSON BAILEY: I think the --

COMMISSIONER BLOOM: I would agree with

that.

CHAIRPERSON BAILEY: You would agree?

COMMISSIONER BALCH: Yeah, I would agree as well.

CHAIRPERSON BAILEY: All right.

"Any containment structure that holds only fresh water, such as a pond, pit, or other impoundment, is not a temporary pit."

CHAIRPERSON BAILEY: We still have the definition for "restore." And I found that word used only on page 39, which is in the reclamation area, so we can come back to that.

COMMISSIONER BLOOM: Madam Chair, do we need a definition in the definition section if the only other place it appears is in a section devoted to that where it might be elaborated on?

CHAIRPERSON BAILEY: It's not elaborated on in that section. That is the problem.

COMMISSIONER BLOOM: Okay.

CHAIRPERSON BAILEY: Under Section 8 on page 4 I questioned the last sentence of subsection A that said: "After June 16th, 2008, an unlined permanent pit is prohibited."

I'm not sure about including that date. But definitely, "permanent pit" needs to be expanded

to an unlined permanent pit, temporary pit, or multi-well fluid management pit, because all three of those are lined.

COMMISSIONER BLOOM: Do you -- it might have been simpler just to say "unlined pits."

CHAIRPERSON BAILEY: We could, yes. So we would just delete the word "permanent" in both places, also the next-to-the-last word.

COMMISSIONER BLOOM: I think we could just leave that singular, right?

CHAIRPERSON BAILEY: Uh-huh. Do you both agree with that change?

COMMISSIONER BLOOM: I would agree with that, yes.

COMMISSIONER BALCH: That's the intent.

CHAIRPERSON BAILEY: Okay.

Then we will go to the next page, Section 9, "Permit Application and Registration."

In B (d) there's a reference to the environmental bureau. And we have deleted that in every other place we came across it.

In paragraph (2) down below there, I have an issue with the very second sentence. This is talking about permit applications, and the permit application includes detailed plans.

So the first sentence: "The plan for a temporary pit shall follow applicable liner," doesn't make sense. It's "the plan for design and construction of a temporary pit shall follow applicable liner manufacturers."

COMMISSIONER BLOOM: So you would like to add "design and construction"?

CHAIRPERSON BAILEY: Yes. After the word "for" insert the words "design and construction of" in the line below where it says: "The plan shall include operating and maintenance," that's not correct. It's the permit application shall also include.

Are you both all right with those changes?

COMMISSIONER BLOOM: Yes. That makes sense.

COMMISSIONER BALCH: Yes.

CHAIRPERSON BAILEY: On the next page we talk about standardized plans in subsection (2).

COMMISSIONER BLOOM: Madam Chair, could we just scroll back up again? I think I just caught something.

No, nevermind. That is okay.

CHAIRPERSON BAILEY: I read that, and I wasn't sure if the public would ever be able to

access those standardized plans. So I thought maybe we should add a sentence in there that would say a copy of the approved standardized plans shall be included in the OCD electronic well files for each associated well.

That would ensure that it is a standardized plan that's still easily available for the public to access.

COMMISSIONER BLOOM: That seems to...

COMMISSIONER BALCH: I believe so.

CHAIRPERSON BAILEY: So at the end of the yellow highlighted area you can add the sentence: "A copy of the approved standardized plan shall be included in the OCD electronic well files for each associated well."

Now, I realize you may have to spell out OCD.

MR. SMITH: It probably should be division, shouldn't it? Isn't that what's used throughout?

CHAIRPERSON BAILEY: Okay. In the division's electronic --

MR. SMITH: "Well file" probably should be singular.

CHAIRPERSON BAILEY: Okay.

That same sentence should also be included at the end of the paragraph, or the last paragraph -- the last paragraph of (3), just below that, because we are talking about standardized plans for below-grade tanks. And I just want to ensure that the public has that information if they choose to read it.

COMMISSIONER BLOOM: Madam Chair, on operators, then, would that just require them to electronically attach -- they could do it as an attachment to the file?

CHAIRPERSON BAILEY: Right.

COMMISSIONER BLOOM: It would be a pretty easy process for them.

CHAIRPERSON BAILEY: Yes. It's just a matter of xeroxing or cut and paste.

COMMISSIONER BLOOM: Okay.

CHAIRPERSON BAILEY: Number (4), on "multi-well fluid management pits," once again we have the language that says a plan shall follow applicable liner -- that doesn't make sense there either.

So insert the words -- after "the," "design and construction."

And at the beginning of the next sentence,

instead of saying "the plan shall include," it's "the permit application shall include -- shall also include."

Are both of you approving the changes that have been made so far?

COMMISSIONER BALCH: I am.

COMMISSIONER BLOOM: Madam Chair, does that follow the same language we have above, "the design and construction plan for"?

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BLOOM: I wasn't sure we had the design and construction of multi-well.

CHAIRPERSON BAILEY: We have the design and construction plan.

COMMISSIONER BLOOM: For a temporary pit also?

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BLOOM: All right. Very good.

CHAIRPERSON BAILEY: Okay.

Scrolling on down to -- C discusses closure plans, but it only discusses closure plans for a multi-well fluid management pit. This seems, to me, to be a very out-of-place section; that it really belongs in Section 13, where we talk about

closure and reclamation of all types of facilities.

I would suggest that we remove this portion, the entire portion of C and, instead, put it in Section 13, page 26.

COMMISSIONER BLOOM: I would ask only that -- is it not perhaps included here because the permit application requires that closure plans be addressed in this section?

CHAIRPERSON BAILEY: It does. But 13 addresses those closure plans for every other facility, not just multi-well fluid management pits.

COMMISSIONER BLOOM: I believe the original language, where we did the deleting, goes into temporary pits and permanent pits.

COMMISSIONER BALCH: I guess my reading of it was that C sort of applied to everything we have talked about in permit application and registrations. That would be temporary pits, permanent pits, and multi-well fluid management pits, as well as below-grade tanks, all of which require closure.

CHAIRPERSON BAILEY: Well, they do, except C (1) only says multi-well management pit -- multi-well fluid management pit.

We have closure requirements that will

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need to be included in the closure plan throughout Section 13.

COMMISSIONER BLOOM: Madam Chair, it might make sense to move it down. Because if we look at the original language, it just refers everything to Section 13 anyway.

CHAIRPERSON BAILEY: Yes. So all of C could be inserted right after the title of 13, and then we can deal with it later this afternoon.

Then we'll go back to what used to be C on page 6. And "Filing of permit application" becomes C.

There's also in C (1) a reference to the environmental bureau. And in D (2), I object to the language: "To request approval to use or construct a temporary pit."

Why not just strike all the way through "multi-well fluid management pit," put a period, and then begin with a capital: "An operator shall file an application on Form C-144 and all required attachments."

COMMISSIONER BLOOM: So adding "and all required attachments" after "C-144"?

CHAIRPERSON BAILEY: Yes. That reflects the same language as used up above in the preceding

paragraph in C (1), because C-144 has required attachments.

COMMISSIONER BLOOM: Madam Chair, in most cases we are treating multi-well fluid management pits as -- in many ways -- as permanent pits.

CHAIRPERSON BAILEY: In many ways.

COMMISSIONER BLOOM: Would that better be treated in (1) above, rather than (2), temporary pits?

CHAIRPERSON BAILEY: Well, because (2) has to do with the division district office, and (1) has to do with the Santa Fe office.

COMMISSIONER BLOOM: Correct.

COMMISSIONER BALCH: I think this goes back to the argument that we heard a number of times about the division district offices having more of the appropriate information that would be useful for siting and permitting a pit.

We did apply the exception standard of permanent pits to multi-well management pits, but they are a hybrid of a temporary and permanent -- well, more, maybe, of a per- -- of a temporary or permanent pit.

I think with the construction standards that are there we still have the protection that you

need for the two to four years they would be in operation.

COMMISSIONER BLOOM: Okay.

COMMISSIONER BALCH: And it might be better for the district office to look at those applications. If they had questions, I guess they would be able to pass them forward to Santa Fe?

CHAIRPERSON BAILEY: Of course.

COMMISSIONER BLOOM: Very good.

The -- one last question. The second line for temporary multi-well fluid management mentions the proposed pit location given on Form C-102. We don't have any similar language in (1) above. I'm wondering if that should be added.

COMMISSIONER BALCH: What's a C-102?

CHAIRPERSON BAILEY: It's simply a plat indicating what acreage is dedicated to a well. So it's not really appropriate to have it for a permanent pit, because we're not dedicating acreage.

COMMISSIONER BALCH: So C-102 has to do with acreage that's dedicated to a particular well, as in a permit that may not have a particular well; it's just storage.

COMMISSIONER BLOOM: Okay. That makes sense.

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MR. SMITH: I think that you can strike the comma after the word "application" in the third line down.

COMMISSIONER BLOOM: Yes. I would be fine if we change the language below to like language above.

CHAIRPERSON BAILEY: Okay. So go ahead and delete that highlighted area and make that a capital a.

Are you both happy with the changes in Section 9?

COMMISSIONER BALCH: Do we need to say "and include required attachments"?

CHAIRPERSON BAILEY: "Shall file an application and required attachments."

COMMISSIONER BALCH: "On Form C-144 and required attachments."

CHAIRPERSON BAILEY: And include -- yes. And we can make that same change up above in paragraph (4).

MR. SMITH: I think, grammatically, you might now want to put a comma after "144" and change "and include" to "including," and then a comma after "attachments."

CHAIRPERSON BAILEY: Okay.

MR. SMITH: And then the same change under the next one.

CHAIRPERSON BAILEY: Okay.

COMMISSIONER BLOOM: The first one reads: "An operator shall file an application, Form C-144."

CHAIRPERSON BAILEY: So then that comma should be deleted.

COMMISSIONER BLOOM: It would be "on Form 144."

MR. SMITH: No, I don't think you want to delete the comma now, because you are setting "including required attachments" off.

CHAIRPERSON BAILEY: No, up above. The very first line, the comma after "application."

MR. SMITH: Oh, yes.

COMMISSIONER BLOOM: Put in the word "on."

COMMISSIONER BALCH: Or maybe just change the language to reflect that in Section (2). Move that to the middle of the sentence.

CHAIRPERSON BAILEY: Do you approve those changes?

COMMISSIONER BLOOM: Yes.

COMMISSIONER BALCH: Yes.

CHAIRPERSON BAILEY: Then let's go on to the next section, 10, "Siting Requirements." The

format that was used in (d), where we have the romanettes -- is that what you called them? Roman 1 and 2?

MR. SMITH: Yes.

CHAIRPERSON BAILEY: That made it very clear what was going on.

If we use that same format in (b), I think that we will find some problems that have been incorporated.

So in (b) we could say within a hundred -- okay.

"Where only low chloride fluids are used," romanette 1. That will go at the beginning of the sentence.

Then we have that funny little squiggle and the little I, the same as we used down below in (d).

Then we have that "within 100 feet of any continuously flowing watercourse."

And now, we have reached the problem where higher chloride fluids are within 300 feet -- or 200 feet.

What do we do for low chloride fluids for significant watercourse or lakebed, sinkhole, or playa lake?

See the problem that's been presented? When we see it as broken down into romanette 1, and romanette 2 will be coming up, we have continuously flowing watercourses protected at 100 feet for low chlorides, but significant watercourses are 200 feet. Or we don't know. I mean, it's not designated what happens with low chloride fluids as a distance to watercourses, lakebeds, sinkholes, or playa lakes.

So I suggest that we make that decision of -- if it's 100 feet to a continuously flowing watercourse, does that also include significant watercourse, lakebed, sinkhole, or playa lake? Or are we reserving a different distance for those for low chloride fluids?

COMMISSIONER BALCH: You know, when we were having a discussion about the piles of dirt --

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: -- we ended up with a problem -- with the same exact problem.

CHAIRPERSON BAILEY: Exactly.

COMMISSIONER BALCH: And because nobody had requested a change we were advised that we couldn't really make that change, if I recall correctly. Or we couldn't, at least, delete

categories.

We ended up leaving it. I think we combined the two kinds of watercourses and then we had a separate 200-foot designation for the lakes and bodies of water.

CHAIRPERSON BAILEY: So your suggestion is to have it read "within 100 feet of any continuously flowing watercourse or any other significant watercourse"?

COMMISSIONER BALCH: Is that what we did for the dirt?

CHAIRPERSON BAILEY: Yes, it is.

COMMISSIONER BALCH: I think we need to be consistent. I think I argued on Thursday that we ought to make it 100-foot for all of those things, but we were not really allowed to do so, since that change was not requested.

But to be consistent, I think we ought to make that distinction. I think that continuously flowing watercourses and significant watercourses should be treated the same.

CHAIRPERSON BAILEY: I agree with you.

COMMISSIONER BALCH: And if there is going to be a distinction, it should be between flowing watercourses of any sort and the lakebed, sinkholes,

or playas. And perhaps the original intent was that those enclosed bodies of water needed a little more protection than something that would flow or wash away. So there may be some justification for that distinction.

CHAIRPERSON BAILEY: So, Theresa, if you would include "any other significant watercourse" after "continuously flowing." Put an "or" before that.

Then we would delete "within 300 feet" -- no. No, no. Because here we have romanette number 2 after the word "otherwise."

Does that read the way it should now?

COMMISSIONER BALCH: Do we need another --

COMMISSIONER BLOOM: So if there's a lakebed out there and low chloride fluids are being used the low chloride pit would be at 200 feet?

CHAIRPERSON BAILEY: That's the way it reads.

COMMISSIONER BALCH: The way it reads is the only decrease in the setback is for flowing water, some sort of watercourse.

COMMISSIONER BLOOM: That's the way I read that too.

MR. SMITH: I find the language to be a

little confusing yet.

The low chloride clause at the beginning applies to the 100 feet for the flowing watercourse or significant watercourse.

The 300 feet of a continuously flowing watercourse is for fluids that are not low chloride?

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: Well, it might be repetitive, and it might be more clear if we also put the 200 feet of a lakebed, sinkhole, or playa in the first definition.

COMMISSIONER BLOOM: One thought. And I wasn't supportive of the addition of the low chloride fluids. But it does seem to be reading that an operator shall not locate a temporary pit where only low chloride fluids are used. That reads a little -- that reads a little funny.

CHAIRPERSON BAILEY: Oh, that's a good catch.

COMMISSIONER BLOOM: Would it be easier to have different sections for low chloride fluids and not, and then the rest?

COMMISSIONER BALCH: Well, we tried that yesterday -- or Wednesday, I think.

MR. SMITH: I think this might be clear if

you put a period after the second instance of "watercourse" in that second line and make "otherwise" a new sentence.

CHAIRPERSON BAILEY: Let's try that.

COMMISSIONER BALCH: That's what we did in (d) below.

COMMISSIONER BLOOM: You can almost read that to say an operator can't locate a temporary pit where only low chloride fluids are used within 100 feet of a continuously flowing watercourse. So if you had a river and you had --

CHAIRPERSON BAILEY: Or we could put a colon after "used" if that would be better.

MR. SMITH: Well, I mean in (d), romanette 1 and romanette 2 both apply to low chloride fluids. Is that right?

CHAIRPERSON BAILEY: Yes.

MR. SMITH: Okay. But in (b), the sentence beginning with "otherwise" does not apply to low chloride fluids.

CHAIRPERSON BAILEY: So we can remove the romanettes --

MR. SMITH: Yes.

CHAIRPERSON BAILEY: -- both of them. It's simply a way that helped (b) understand that we

had issues with "significant" and "continuously flowing."

What about putting the colon after "used" in the very first line?

MR. SMITH: I think that would be -- I think that would be confusing. Because if you put a colon there you're looking for series.

CHAIRPERSON BAILEY: Okay.

COMMISSIONER BLOOM: What if low chloride fluids would be -- "An operator shall not locate a temporary pit within 100 feet of any continuously flowing watercourse or any other significant watercourse where only low chloride fluids are used"?

CHAIRPERSON BAILEY: It works. I will agree with that.

COMMISSIONER BALCH: Well, move it, and we'll see what it looks like. That seems like a good solution.

MR. SMITH: You know, I think you can put a comma after the first -- after "watercourse" in the second line.

COMMISSIONER BALCH: The only thing I can think of that might make this more clear, but it would be at the cost of using more words, would be

to structure (b) exactly like (d), where you specifically state the limits for low chloride and then otherwise, even though some of the limits will be the same.

CHAIRPERSON BAILEY: Well, we don't have a series for low chloride. We only have one instance for low chloride in (b).

COMMISSIONER BALCH: Then let me make another possible suggestion.

What if we insert a new paragraph between (b) and (c) and have (b) only deal with the low chloride situation of the watercourses and then have the new (c) deal with the otherwise case? Because that would apply to everything, not just low chloride.

Would that make it more clear?

MR. SMITH: If you do that for (b) you might want to do it for (d).

COMMISSIONER BLOOM: Maybe we could change "where only" to "when" or something like that. "The operator shall not locate a temporary pit within 100 feet of any continuously flowing watercourse or any other significant watercourse where low chloride fluids are used."

COMMISSIONER BALCH: Well, I'm not sure

it's important. My only point is that the "otherwise" case applies to everything, low chloride and regular. So that should be more of a broad definition, or broad description.

MR. SMITH: I think you are better off changing "where" to "when" and putting it back at the beginning of the sentence, and then a comma after "used."

COMMISSIONER BLOOM: That seems clear now.

CHAIRPERSON BAILEY: Okay.

MR. SMITH: You might want to change "where" to "when" in (d).

CHAIRPERSON BAILEY: I almost agree with you, of repeating the 200 feet phrase both in the first sentence and the second -- the last sentence, so that it's clear that low chloride fluids have to be 200 feet from a lakebed, sinkhole, or playa lake.

Because otherwise, we have the high chloride dominating the distance for lakebed, sinkhole, or playa lake, but we don't know the distance for low chloride.

So we would -- the whole part of that, that whole phrase there beginning with "200 feet."

Put that after "watercourse" on the end.

COMMISSIONER BLOOM: Comma after

"watercourse."

COMMISSIONER BALCH: Now, do we need our romanettes again? My concern was that every time I read (d) -- well, I read (d) several times, and it took me that many times to figure out the intent, which I think means it's confusing.

CHAIRPERSON BAILEY: Uh-huh. We would have to delete "significant watercourse" in the line below where the cursor is.

No. The line below, yes.

COMMISSIONER BALCH: I think if you want to keep -- if you don't want to separate into two categories, then you might want to go back with romanettes in (b) similar to what is in (d).

CHAIRPERSON BAILEY: Because we do now have a series.

MR. SMITH: I think you can take out the word "other."

Now, I think you do need the romanettes again.

CHAIRPERSON BAILEY: Okay. Romanette number 1 after -- on the very first line before the word "100 feet."

MR. SMITH: No, no, under (b). Back one, after the word "within."

CHAIRPERSON BAILEY: And then after the word "or," before 200.

MR. SMITH: And then you can take off the comma after "watercourse."

COMMISSIONER BALCH: The second romanette needs another I. I know it's a little bit repetitive, but I think it's more clear.

CHAIRPERSON BAILEY: I agree with you that it's very clear what applies where.

COMMISSIONER BLOOM: In (d) below, do you want to put the first romanette after the word "within," so it's the same top and bottom?

COMMISSIONER BALCH: We lost a "within" in (b).

CHAIRPERSON BAILEY: After the second romanette in (b)? Is that what you said?

COMMISSIONER BALCH: Well, we have a "within" within the first romanette, so maybe it would be "or within," in the second romanette.

CHAIRPERSON BAILEY: Okay. That reads pretty good in (b).

I'm looking at (d). So actually, the "within" in (d) needs to be deleted rather than in (b).

COMMISSIONER BLOOM: The second one,

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correct, after romanette 2.

CHAIRPERSON BAILEY: Yes.

MR. SMITH: So in (b), it's 200 feet from any lakebed, sinkhole, or playa lake regardless of whether it's low chloride or not.

COMMISSIONER BALCH: Yes. That is the case.

MR. SMITH: Okay.

COMMISSIONER BALCH: We are just explicitly making -- even though we are stating it twice, it's for clarity -- putting all of the low chloride definitions together, even though some of them are the same.

MR. SMITH: Okay.

CHAIRPERSON BAILEY: Because that's consistent with the way we handled it for the dirt.

In (d), we were going to move the word "spring" before "private," so that we don't require springs to be used by less than five households, and then put the word "or" after "spring." "Spring or private."

Yes.

And then remove the "or" after "well," on that same line.

Dr. Neeper was very clear to justify that.

COMMISSIONER BALCH: And rightfully so.

Is this substantially the same language we used for -- there's another section where we have the same language.

CHAIRPERSON BAILEY: Yes. Further on down, when we talk about below-grade tanks.

COMMISSIONER BALCH: Okay. Great.

CHAIRPERSON BAILEY: Yes.

Scrolling on down to --

COMMISSIONER BLOOM: Madam Chair, the -- if we go down further in (d), we have "spring" again.

CHAIRPERSON BAILEY: Okay. That needs to be moved to before "private."

COMMISSIONER BALCH: And the comma after "private" needs to be deleted.

CHAIRPERSON BAILEY: Okay.

Scrolling down to (j), we copied that language from somewhere else. "Operators must obtain an exception to locate a temporary pit inside setbacks indicated for low chloride fluids."

But we don't indicate how an operator would obtain a setback different for high chloride fluids.

COMMISSIONER BLOOM: Correct.

CHAIRPERSON BAILEY: Is that an exception or is that a variance?

COMMISSIONER BALCH: I think we wanted the -- with exceptions, we wanted to point out only things that were an exception level.

Since we had already reduced the setbacks for low chloride fluids, we felt it appropriate that those would be looked at more closely. I think everything else is a variance.

COMMISSIONER BLOOM: This does open the case, though, where a high chloride fluid could be sited inside of distances for low chloride fluids with just a variation.

COMMISSIONER BALCH: Well...

CHAIRPERSON BAILEY: I think it would be very difficult for a district office.

COMMISSIONER BALCH: I imagine they would pass that decision on.

CHAIRPERSON BAILEY: There can be slight variations because of topography, roads, houses. I can see where that could be a district decision for very minor or very slight changes in that.

But as far as bringing a high chloride into the same area where we have contemplated low chlorides, I would rely on district supervisors to

either deny that or to check with Santa Fe.

COMMISSIONER BLOOM: That -- you know, (j) doesn't even -- we need to fix the language or make it maybe a (2) or something like that. Because it starts off by saying: "An operator shall not locate a temporary pit, colon, operators must obtain an exception to locate a temporary pit." Yes.

CHAIRPERSON BAILEY: So it doesn't rightfully belong as (j). It rightfully belongs as B.

COMMISSIONER BALCH: B.

CHAIRPERSON BAILEY: Or -- no.

COMMISSIONER BLOOM: (2)?

COMMISSIONER BALCH: (2).

CHAIRPERSON BAILEY: (2).

COMMISSIONER BALCH: We could say "an operator," to be consistent with the language we used in (1).

MR. SMITH: Singular operator. I think that this should be clear on the record.

As you have it now, a change in setbacks for low chloride fluids is an exception, right?

CHAIRPERSON BAILEY: Yes.

MR. SMITH: And a change in setbacks for non low chloride fluids is a variance, right?

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CHAIRPERSON BAILEY: That is what we are discussing.

MR. SMITH: Okay. And the reasoning behind that is that you are allowing closer setbacks for low chloride fluids, correct?

COMMISSIONER BALCH: Yes.

CHAIRPERSON BAILEY: Yes.

MR. SMITH: It is, nonetheless, open for an operator to seek a variance to put non low chloride fluids closer to a water source than low chloride fluids by simply seeking a variance. That is --

COMMISSIONER BALCH: Well, I think it's theoretically possible, but I don't think it's very likely. And that person that made that variance would probably have to answer to somebody if they did that.

COMMISSIONER BLOOM: You could also read it to imply that if it was a non low chloride fluid temporary pit an exception would still need to be sought.

CHAIRPERSON BAILEY: So we need to add a sentence having to do with variance of changes from the setbacks for the non low chloride fluids. Would we call it higher chloride fluids?

MR. SMITH: Well, I think that -- all I'm thinking here is that you -- you may not want to rely on the notion that -- someone in a division office seeking a variance -- you can count on them -- or granting a variance, that you can count on them not to put the higher chloride even closer to a water source.

I think you might want to handle that, even though it may be cumbersome, some way or another in the regulation.

COMMISSIONER BALCH: Well, I think in the definition of variance -- and I didn't print out a copy of what we came up with for that language. But I think that the intent is that a variance is a relatively minor change. And going from a 300-foot setback to a 50-foot setback would not be a relatively minor change.

COMMISSIONER BLOOM: I think it could be defined down below, and then --

COMMISSIONER BALCH: I mean, I think that if you were to argue it fanatically, any variance could be abused.

CHAIRPERSON BAILEY: "And an operator must demonstrate that the requested variance provides equal or better protection of fresh water, public

health, and the environment."

COMMISSIONER BALCH: That would be a pretty high bar.

COMMISSIONER BLOOM: You could clarify --

MR. SMITH: You could add a sentence that says that an operator seeking to set a pit when -- using higher chloride fluids or non low chloride fluids, seeking to set a pit within low chloride setbacks must get an exception.

COMMISSIONER BALCH: Okay.

CHAIRPERSON BAILEY: Okay.

COMMISSIONER BALCH: I think if we were to go back there to that section we might have to have a (2) (a) and a (2) (b).

CHAIRPERSON BAILEY: All right.

COMMISSIONER BALCH: Or could we get it all in the same sentence?

CHAIRPERSON BAILEY: Or we could have separate sentences.

An operator must obtain an exception to locate a --

COMMISSIONER BALCH: I think it already says that. It doesn't say low chloride fluids, but it says a temporary pit.

MR. SMITH: Well, you're right.

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COMMISSIONER BALCH: An operator that wants to locate a temporary pit inside any of the setbacks for low chloride fluids would be an exception. It's already there.

CHAIRPERSON BAILEY: But this is saying that higher chloride pits have to have an exception.

COMMISSIONER BALCH: We're broadly putting all temporary pits into the definition of (2): "An operator must obtain an exception to locate a temporary pit."

It doesn't say high chloride or low chloride inside setbacks -- indicated for low chlorides.

CHAIRPERSON BAILEY: But where we have designated certain footages for high chloride fluids, to make any kind of a minor change from 300 feet, say, to 290 feet for a high chloride pit would require an exception.

COMMISSIONER BALCH: I see what you are saying.

MR. SMITH: You could say for number (2) -- begin with where an operator is using low chloride fluids, the operator must obtain an exception.

No, I'm talking about at the very

beginning.

Where an operator is using low chloride fluids, the operator must -- and then you could have another sentence that says --

COMMISSIONER BALCH: Otherwise, within those low chloride setbacks you want an exception as well.

COMMISSIONER BLOOM: I like the original language. But we would change "a temporary pit" to "any temporary pit." That means we are trying to put any temporary pit, no matter what it has in it, inside -- this is established for low chloride fluid pits, which triggers an exception.

If somebody wants to put a non low chloride fluid pit 50 feet from a watercourse it would trigger an exception.

COMMISSIONER BALCH: I agree with that intent. I don't know how we get there with the language.

MR. SMITH: You could put a second sentence here. Let me see. How about this?

Where an operator is using -- and don't make these changes until they are happy with them.

The first -- that very first sentence could read: "Where an operator is using either low

chloride fluids or non low chloride fluids," and then continue there.

And then you could say: "Otherwise, an operator seeking to place a temporary -- or a pit within the setback distances, or whatever, must seek a variance."

So what you would have is, in the first sentence, low chloride, high chloride, makes no difference. If it's going to be within the setbacks for low chloride it's an exception.

Second sentence is, otherwise, if you want to change the setbacks, it's a variance.

CHAIRPERSON BAILEY: I see what you are saying.

COMMISSIONER BLOOM: I agree with that.

COMMISSIONER BALCH: Yeah. I mean, we have tried to broadly just make exceptions for the word "exception." But I think in this case, for clarity, we have to probably use the word "variance" as well.

CHAIRPERSON BAILEY: So it would say: "Where an operator is using either high or non chloride" -- scratch the "or."

MR. SMITH: "Either low chloride fluids or non low chloride fluids."

CHAIRPERSON BAILEY: "Or non low chloride fluids" --

MR. SMITH: Right.

CHAIRPERSON BAILEY: -- "to locate a temporary pit inside setbacks indicated for low chloride fluids."

MR. SMITH: And then your second sentence could read: "Otherwise, an operator must obtain a variance to locate a temporary pit inside setbacks set forth in the subpart," and then cite it or whatever.

COMMISSIONER BALCH: It would be 19.15.17.10.A (1).

MR. SMITH: "Provided in."

COMMISSIONER BALCH: You can just copy it from the line above. We don't need the (a), (b), (d), (f). So just down to A (1).

This seems pretty clear.

CHAIRPERSON BAILEY: I can understand that one pretty well.

COMMISSIONER BLOOM: Yes.

MR. SMITH: After the word "fluids" in that first sentence do we need something?

Go down to your second page. "Indicated for," in the first line of the second page,

"indicated for low chloride fluids and."

CHAIRPERSON BAILEY: Then we can scroll down to -- okay. (2) actually becomes (3), then, doesn't it?

COMMISSIONER BALCH: Yeah. She got that one already.

CHAIRPERSON BAILEY: Okay. So in (3), where we're talking about permanent pit or multi-well fluid management pits, (b), there is language about environmental bureau.

In (g) we also have language about the environmental bureau.

And in the last line of (g), if we scratch "permanent pit's," then it also becomes applicable to multi-well fluid management pit that we have in the title.

COMMISSIONER BALCH: Well, I think we borrowed all this language, so that's probably an oversight.

CHAIRPERSON BAILEY: And also in (h) we can delete the word "permanent," to ensure that the pit's integrity is not compromised.

And down below, the word "permanent" is misspelled, in red.

COMMISSIONER BLOOM: We may want to do

something with (j). I don't know whether that would be (4) at this point.

CHAIRPERSON BAILEY: Yes, that would become (4).

COMMISSIONER BLOOM: I'm sorry, Theresa. (j) becomes (4). You might want to pull that out a little bit.

CHAIRPERSON BAILEY: And (4) becomes (5).

And that is where we talked about the dirt. And those numbers --

COMMISSIONER BLOOM: I'm sorry. And then (4), I believe at the end of 19.15.17.10 A, I believe that would be A (3).

COMMISSIONER BALCH: Right.

Now, while we did spend a little bit of time debating the 100-year floodplain, you're not going to have a pit in a 100-year floodplain, so it doesn't matter if it's there or not, the definition.

COMMISSIONER BLOOM: True.

COMMISSIONER BALCH: I suppose you could be right next to a 100-year floodplain and put your dirt right over the line.

CHAIRPERSON BAILEY: If we scroll on down to -- okay. (4) becomes (6), to C, where we are in yellow and it says: "An operator shall not

implement an on-site closure."

Okay. Scrolling on down to (6), down below there -- yes. "Within incorporated," we had changed that language so that we did not start messing with the municipal definitions of fresh water well field. We had agreed to use the words -- use "fresh water well field" and delete the words "head protection area, as defined." We are keeping "field," but deleting the underlined part in gray.

And that would become consistent with our language we used in A (1) (e) under Section 10.

COMMISSIONER BLOOM: Madam Chair, my memory is not clear of whether or not we dealt with Section C here, because it relates to closure.

Did we work through that?

CHAIRPERSON BAILEY: We really hadn't.

COMMISSIONER BALCH: No, we hadn't. We had stopped at that point.

CHAIRPERSON BAILEY: Yes. I was just looking for that consistency.

COMMISSIONER BLOOM: Right. That's fine.

CHAIRPERSON BAILEY: And we can talk about closures later on.

COMMISSIONER BLOOM: Okay.

CHAIRPERSON BAILEY: Okay. Scrolling on

down to Section 11.

First off for 10, are we all in agreement that those editorial changes that we made today were necessary and re-correcting them?

COMMISSIONER BLOOM: Agreed.

COMMISSIONER BALCH: Agreed.

Madam Chair, we will go through it at least one more time.

CHAIRPERSON BAILEY: Oh, at least.

Scrolling on down to Section 11 F (4), where we talk about construction for temporary pits.

This has to do with the design and construction specifications for temporary pits.

I was great in geometry, but there are a lot of people, who are not going to be great in geometry, that are going to be working with how to lay out the liner seams.

Even I had to read the third sentence about four times to understand what they were talking about, because there was -- seemed to be a contradiction.

If we put a period after "4 to 6 inches" and delete the rest of that sentence, I believe it's clear without adding so much information that it becomes confusing.

COMMISSIONER BLOOM: Say that one more time.

CHAIRPERSON BAILEY: The first sentence reads "minimize the seams and orient them up and down, not across the slope."

COMMISSIONER BALCH: Which is essentially the same thing repeated.

CHAIRPERSON BAILEY: Only the more technical words that maybe would get lost or create confusion.

COMMISSIONER BLOOM: That's tough, because it seems like there is going to be a slope on all four sides, correct?

CHAIRPERSON BAILEY: Uh-huh. So if you do it up and down...

COMMISSIONER BALCH: Well, regardless, you are going to have two directions in a square pit where they are not in compliance.

COMMISSIONER BLOOM: That was my point.

COMMISSIONER BALCH: Yeah.

CHAIRPERSON BAILEY: But parallel to the line of maximum slope. So it's going to be --

COMMISSIONER BLOOM: Yes.

CHAIRPERSON BAILEY: -- lost by a lot of folks.

COMMISSIONER BLOOM: Yes.

CHAIRPERSON BAILEY: So do you agree to delete --

COMMISSIONER BALCH: I think the intent is you don't want to have your seams going across the slope if you can help it.

CHAIRPERSON BAILEY: And the first --

COMMISSIONER BALCH: And it says "minimize." You are trying to minimize it. So your design would be such that you had the least number of seams that were not running up and down.

COMMISSIONER BLOOM: Okay.

CHAIRPERSON BAILEY: So let's go ahead and delete that.

Now, the last two sentences could be contradictory. "Qualified personnel shall perform field seaming. The operator shall weld field liner seams."

Sometimes operators are qualified. If we delete the last sentence, then it leaves it open to "qualified personnel shall perform field seams."

COMMISSIONER BALCH: It becomes an operational issue.

CHAIRPERSON BAILEY: Do you agree that we could delete that last sentence to prevent that

confusion over an operator who is not qualified?

COMMISSIONER BLOOM: Perhaps we should make it "qualified personnel shall weld the seams," or "shall perform the welding of field seams"?

CHAIRPERSON BAILEY: Well, the second sentence says "shall use factory welded seams where possible. Prior to field seaming, the operator shall overlap 4 to 6 inches."

I mean, this is a step-by-step description of how to put a leakproof liner down.

COMMISSIONER BLOOM: I think what the second sentence is trying to say is that the field seams shall be welded --

COMMISSIONER BALCH: Yes.

COMMISSIONER BLOOM: -- versus sewn.

COMMISSIONER BALCH: So if you incorporate the welding into the prior sentence, then you can eliminate the second one.

CHAIRPERSON BAILEY: It works for me. Instead of "perform," use the word "weld"?

COMMISSIONER BALCH: "Shall weld field liner seams," I think would be fine.

CHAIRPERSON BAILEY: The very last --

COMMISSIONER BALCH: So actually, if you just delete everything from (4) in the second-to-

the-last sentence through "shall," in the last sentence.

CHAIRPERSON BAILEY: So at least the --

COMMISSIONER BLOOM: Leave "shall."

CHAIRPERSON BAILEY: Okay. Does that work?

COMMISSIONER BLOOM: Shall weld field liner seams? Is it field weld? Field weld liner seams there.

COMMISSIONER BALCH: Well, I mean, there's factory -- factory seams and then there's field seams. Field seams are welded in the field.

COMMISSIONER BLOOM: Yes.

CHAIRPERSON BAILEY: Okay. So I agree with you. Shall field -- shall weld -- "shall field weld liner seams."

And that indicates seams that they put together have to be welded there in the field.

Good?

COMMISSIONER BLOOM: Could we just say that they have to field weld all the liner seams, including the ones that are factory welded?

CHAIRPERSON BAILEY: Okay.

Scrolling on down to G (3), "permanent pits." There's a reference to the environmental

bureau.

Scrolling on down in that paragraph the last sentence. Okay. The sentence that begins: "The geomembrane liner shall have a hydraulic conduct-" -- okay.

"The geomembrane liner shall be composed of an impervious synthetic material that is resistant to" -- if we put "ultraviolet light" in there then we can delete the last two sentences.

COMMISSIONER BLOOM: So that EPA SW-846 method 9090A is all about ultraviolet lighting?

CHAIRPERSON BAILEY: I don't know. But I do know that we have told them that they have to comply with manufacturer's specs. And if it's ultraviolet light resistant it would comply with the manufacturer's specs.

COMMISSIONER BALCH: My concern about -- I can see where your concern might be.

But if you leave in that specific regulation, something else may come along and supersede that. It would be better just to allow that to be taken care of operationally. There might be an EPA SW-847 next year, and our regulation says 846.

MR. SMITH: Let me ask you. Was there any

testimony about EPA SW-846?

CHAIRPERSON BAILEY: There was no testimony about these details.

MR. SMITH: I would suggest to you that you not delete a reference with -- if you don't have testimony about it and are not sure what it provides.

But to take care of Commissioner Balch's concern you could have it read "liner compatibility shall comply with the regulation method 9090A" --

No, no, no, I'm just talking now. I'm sorry.

-- "with EPA SW-846 method 9090A, or subsequent controlling federal regulation," or "as amended," or something there to take care of Commissioner Balch's concern.

CHAIRPERSON BAILEY: Okay. "Or subsequent" --

MR. SMITH: -- "controlling federal regulation."

COMMISSIONER BALCH: And we have the same language I think, basically, in the management.

I think we can, however, delete the second-to-the-last line, which is the ultraviolet light, and move that up to the previous sentence.

CHAIRPERSON BAILEY: Okay. The next-to-the-last sentence that begins: "The liner material shall be consistent," that can be deleted because we put it up above.

COMMISSIONER BALCH: Now, if you copy everything from the first -- from "ultraviolet light" down, I think we have to move that language to the section on multi-well pit management.

CHAIRPERSON BAILEY: We're getting there.

COMMISSIONER BALCH: Well, I was saying Theresa may want to copy that whole area, so all the way down to the end.

CHAIRPERSON BAILEY: Okay. If we scroll on down to paragraph (4) just below this, there's the reference to environmental bureau in two different places in that first line.

Then if we look at paragraph (5), the unnecessary detail of how to field test liner seams. If they're constrained to using factory specs, then we really don't need to tell people how they're going to test.

COMMISSIONER BALCH: I believe we modified this language in the multi-well section. Didn't we have this discussion already?

CHAIRPERSON BAILEY: Yes, we did.

COMMISSIONER BALCH: So maybe we should go back and look at that language.

I think that while nobody said anything in particular about the testing of seams using air pressure between 33 and 37 psi, there was broad testimony about the difficulty in interpreting and applying some of these standards.

MR. SMITH: I'm sorry. Would you say that again? I was looking for something.

COMMISSIONER BALCH: Well, we're modifying some existing language. I think we did it already for multi-well fluid management pits. Or did we just look at it?

MR. SMITH: There was no suggestion that this be altered?

CHAIRPERSON BAILEY: What?

MR. SMITH: Was there a suggestion that this be edited?

CHAIRPERSON BAILEY: No, but in the interest of streamling and making the regulation more understandable.

COMMISSIONER BALCH: And there was broad testimony about the rule was too specific about certain things. We're not -- about a lot of things.

Can we go to (4)?

MR. SMITH: And this is also going to make it consistent with changes that you have previously made.

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: We made for the multi-well fluid management.

COMMISSIONER BLOOM: I mean, I guess the only problem I have with removing that language is perhaps there's other ways of testing the liner, but they're not as good as -- maybe this was put in for some reason that we don't know.

COMMISSIONER BALCH: Where is --

CHAIRPERSON BAILEY: Do you want to see what it says in multi-well?

COMMISSIONER BALCH: Yes.

CHAIRPERSON BAILEY: Okay. Let's scroll all the way down to J (6) on page 19.

COMMISSIONER BALCH: Basically, we came up with a new section for multi-well fluid management pits, and now we're trying to make the language consistent in the permanent fluid section.

CHAIRPERSON BAILEY: Because construction specs are the same as far as multi-well fluid management pits and permanent pits.

MR. SMITH: If -- if that's the case and

no testimony was given about changing this language on permanent, maybe you should incorporate that into the multi-well as opposed to doing it the other way around.

CHAIRPERSON BAILEY: The detail -- the unnecessary step-by-step language, the constraint, instead of finding new and better ways of doing field testing.

COMMISSIONER BALCH: There was -- there was ample testimony about how the existing rule did not allow, in many cases, the use of best practices.

And there was an emphasis in testimony from both NMOGA and IPANM that best practices should dominate decisions that are made.

MR. SMITH: But no requests were made to change this?

COMMISSIONER BALCH: They requested that we add multi-well fluid management pits.

MR. SMITH: Right. But no --

COMMISSIONER BALCH: They requested we add them as temporary pits.

MR. SMITH: But no requests were made to change this section of the permanent pits, right?

CHAIRPERSON BAILEY: Not specifically. But we do want consistency between the requirements

for multi-well fluid management pits and construction installation requirements for permanent pits.

And the instructions, as given for permanent pits, are too specific and too constraining when we require them to use best management practices or to comply with manufacturer's specs.

COMMISSIONER BALCH: We have a specification of this -- if you bubble it, you check the pressure of the bubble inside the -- between the two field wells.

And if somebody comes up with a new and better liner that has a different way of testing it, that test no longer applies. You can't pass that test ever.

This allows use of a newer better management practice.

There was testimony that the existing rule, the way the language is written, broadly disallows best management practices. It specifies exact practices.

And they did cite a number of places where those things were repaired directly.

And I think what Commissioner Bailey is

saying, that to be consistent, it would be helpful if we also repair some of the broad but not specifically pointed out features that would cause conflict between sections of the new rule.

MR. SMITH: Well, it doesn't really conflict, right? It's just because one applies to multi-well, the other applies to permanent, correct?

CHAIRPERSON BAILEY: Yes.

MR. SMITH: I would not recommend changing this if there hadn't been language changes suggested.

I mean, it's one thing for you to make changes that logically flow from changes that have been requested.

It's another thing to change a section where no request was made and that don't flow from changes you have made previously.

Now, I -- I understand the notion that -- or the argument that this is a logical extension of changes that you made with respect to the multi-well fluid management pits, but they are two different kinds of pits. And you determined earlier that you wanted the multi-well pits to be similar to the permanent pits because of your view that risks to the environment were -- needed particular treatment

for those two kinds of pits.

But I don't know that changing the language in this paragraph logically flows from that decision.

While I understand your desire to make this consistent with what you've done with multi-well fluid management pits, I don't know that I would say it logically flows from that. And if no one has requested it, I would recommend against changing this even though I understand why you want to.

COMMISSIONER BALCH: I'd say we leave that section alone.

CHAIRPERSON BAILEY: Let's leave it alone.

We can go back to page 15.

COMMISSIONER BLOOM: On the temporary liner, if we're down there --

COMMISSIONER BALCH: This is multi-well.

COMMISSIONER BLOOM: I'm sorry, multi-well.

We took out the language that we thought about putting down for permanent pits and left in for permanent pits.

Does it require any testing of the seam here? I don't see that it does. We might want to

do that.

COMMISSIONER BALCH: "Qualified personnel shall perform field seaming and testing," there at the end.

COMMISSIONER BLOOM: Oh, we're adding testing? Okay.

COMMISSIONER BALCH: Yes. The same question came up.

CHAIRPERSON BAILEY: But while we are there we can make this paragraph reflect the changes that we made for deleting the rest of the sentence after the words "4 to 6 inches," in about the middle of the paragraph.

No, leave that. But after "inches" we had deleted the rest of that sentence because it created confusion.

COMMISSIONER BALCH: It was already covered by the first sentence. That's the same change we made for temporary pits.

CHAIRPERSON BAILEY: Right.

Okay. Back to page 15, paragraph (7). There is an entire paragraph there -- oh, at the end of paragraph (7) we can delete "environmental bureau."

That entire section has to do with a leak

detection system. Now for multi-well fluid management pits, I believe that we reached the agreement that the leak detection system for multi-well fluid management pits would be the same as what a permanent pit has.

COMMISSIONER BLOOM: Did we -- or did we just say that it shall have a detection system and left it a little more general than this?

COMMISSIONER BALCH: I think we were allowing for best practices.

COMMISSIONER BLOOM: Yes.

COMMISSIONER BALCH: The intent is that you have something to monitor leaks and that it's effective. It's not that you do a particular thing. As long as it has two liners. I think we specified that.

COMMISSIONER BLOOM: Shall we scroll down and see what we have there?

CHAIRPERSON BAILEY: Yes. On page 20 is the language we have for the leak detection system in multi-well pits.

Page 20, number (8), paragraph number (8).

COMMISSIONER BLOOM: Yes.

CHAIRPERSON BAILEY: There we go.

Now if you compare that paragraph, it does

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not say in the same detail as -- the permanent paragraphs talked about the need for piping designed to withstand chemical attack, structural loading stresses, and disturbances, the permeability of the material between the pipes and the laterals to ensure that the -- any leak would be conducted to a monitoring system.

It doesn't talk about the size of the pits necessary for the leak detection system or sealing the solid sidewall riser pipe to convey collected fluids to a collection, observation, and disposal system.

Let's say we take a 10-minute break and we can look at the comparison between the permanent pit specifications for a leak detection system and the multi-well fluid management pit leak detection system. And let's come back in 10 minutes.

(A recess was taken from 10:28 a.m. to 10:46 a.m.)

CHAIRPERSON BAILEY: Commissioners, we have had a chance to compare the two paragraphs concerning leak detection systems.

Do you want to insert the leak detection system paragraph that we have currently for permanent pits and use it the same for multi-well

fluid management pits?

COMMISSIONER BALCH: We spent quite a bit of time taking the paragraph for permanent pits and turning it into this paragraph for multi-well fluid management. And as long as it captures the intent and specifies a double liner system, I'm not sure we really need to. Particularly, as you identified, there may be, additional, two specific criteria in some of the regulation that we are not addressing today.

CHAIRPERSON BAILEY: That is correct.

Commissioner Bloom, did you agree with that?

COMMISSIONER BLOOM: I believe this language would be sufficient to generate a detection system that will work for the temporary -- I'm sorry -- the multi-well fluid management pit.

CHAIRPERSON BAILEY: Okay. We are good.

Before we go too much farther down the road, Mr. Smith pointed out that the EPA reference that we had earlier referenced any subsequent federal regulations. It should actually be a publication that is being referenced.

MR. SMITH: The SW-846 reference.

COMMISSIONER BLOOM: I looked up that EPA

regulation, and it's the compatibility test for waste liners.

MR. SMITH: And it should read -- and there must be another cite to this, because this has already been changed. This -- this hasn't been changed, but we did make a change elsewhere. It should be: "Liner compatibility shall comply with blah, blah method 9090A, or subsequent relevant EPA publication."

CHAIRPERSON BAILEY: But we can go back to page 15, where we had our other reference having to do with permanent pits. So G (3)?

MR. SMITH: Yes. It should be "subsequent relevant publication."

CHAIRPERSON BAILEY: Okay.

Scrolling down to paragraph (8), there's a reference to environmental bureau.

In paragraph (9), that requirement that the pit shall be constructed in a way to prevent overtopping due to wave action or rainfall is not a part of the requirement for multi-well fluid waste management requirements on page 25.

COMMISSIONER BLOOM: Do we want to add that?

CHAIRPERSON BAILEY: That's what I'm

asking. Do you want to add a requirement that the construction is in a manner that prevents overtopping due to wave action?

COMMISSIONER BLOOM: Yes, I believe that would be important.

COMMISSIONER BALCH: Are they primarily using the 3-foot freeboard to prevent overtopping or are they putting in booms and things to segregate the water into existing smaller surface areas that are causing waste?

CHAIRPERSON BAILEY: I believe they are using the 3-foot freeboard. But for that -- a permanent pit is limited to 10 acre feet, and a multi-well permanent fluid management pit is not limited to 10 acre feet, and it could have a much longer length where the wave action could become significant.

COMMISSIONER BALCH: Right.

CHAIRPERSON BAILEY: So if we go to page 25, which is -- has to do with multi-well management pits.

COMMISSIONER BALCH: I think we should just modify (3) to reflect the same language.

CHAIRPERSON BAILEY: Exactly. We can copy that same sentence there and insert it there for

(3). Or if it's easier for you, Theresa, you can say: "The operator shall construct a multi-well fluid management pit in a manner that prevents overtopping due to wave action or rainfall, and shall" --

COMMISSIONER BLOOM: Are we in the operating section of this rather than the design?

CHAIRPERSON BAILEY: We're in Section 12. Section 12 is where we are ensuring that we have this consistent language.

COMMISSIONER BLOOM: We have this in Section 11, correct, "Design Construction"?

Now, we're in operating.

CHAIRPERSON BAILEY: It could go in (j). I was adding it to language that was already there.

COMMISSIONER BLOOM: Okay.

CHAIRPERSON BAILEY: But it could go in (j), if you think it's more appropriate.

COMMISSIONER BALCH: Well, we are talking about construction. The only thing we had here before was they must maintain at least a 3-foot freeboard.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: And that's an operational constraint.

The construction would be where you have a design that would prevent overtopping.

CHAIRPERSON BAILEY: Okay. So instead of the changes that you just made we can go back to where we were and put it in on page 18, (j).

Those are design and construction, and it could become number (2) instead of number -- or put it at the end of (1)?

COMMISSIONER BLOOM: At the end of (1).

CHAIRPERSON BAILEY: At the end of (1) may be an appropriate place.

COMMISSIONER BALCH: Do we want to specifically talk about 3 feet of freeboard here, since it's specified in operational constraints?

CHAIRPERSON BAILEY: We don't need to because we already have it in operation.

COMMISSIONER BLOOM: That's right.

COMMISSIONER BALCH: So we can just talk about "prevents overtopping due to wave action or rainfall," and then a period there?

CHAIRPERSON BAILEY: Yes. Okay.

COMMISSIONER BLOOM: Could we delete the second sentence, everything before "prevents," just put in "and"? It would read: "The operator shall design and construct a pit to ensure the confinement

of liquids to prevent unauthorized releases and prevents overtopping due to wave action or rainfall."

COMMISSIONER BALCH: I think that's the better way to do it.

CHAIRPERSON BAILEY: Much better, yes.

COMMISSIONER BALCH: So from the "releases," take that period out and go all the way down to --

COMMISSIONER BLOOM: "That."

COMMISSIONER BALCH: -- "that," yes, and "that prevents."

CHAIRPERSON BAILEY: Okay. You can scroll on down past to "Below-grade tanks," in I.

And go to I (4) (a) on page 17.

And here, we do have -- we have already fixed the "or subsequent EPA publication."

But once again, if we insert "ultraviolet light" in that sentence before last, then we can remove the following sentence for "the liner material shall be resistant to ultraviolent light."

Yes, we can delete that.

COMMISSIONER BALCH: "Resistant to ultraviolet light, petroleum hydrocarbons, salts and..."

CHAIRPERSON BAILEY: Uh-huh.

Okay. Continuing to scroll down to J, where we were talking about multi-well fluid management pits.

J (4) has a reference to environmental bureau in that third line.

COMMISSIONER BALCH: Then you might want to put a "that" in front of the "the."

CHAIRPERSON BAILEY: And scrolling on down to the last line of that paragraph.

We once again need to have "or subsequent federal publication."

COMMISSIONER BALCH: And we can move the ultraviolet light line up into the previous sentence.

CHAIRPERSON BAILEY: Exactly.

COMMISSIONER BALCH: Actually, I think you can just delete these last two sentences. We can probably copy it from somewhere else in full.

CHAIRPERSON BAILEY: No, because the methods are different.

COMMISSIONER BALCH: Okay.

CHAIRPERSON BAILEY: So after "a" we can put in that same language "or subsequent."

COMMISSIONER BALCH: "Publication."

MR. SMITH: "Subsequent relevant publication."

CHAIRPERSON BAILEY: Okay. Remove the sentence that's before that and insert "ultraviolet light" in the line above, before "petroleum hydrocarbons."

COMMISSIONER BALCH: All right.

CHAIRPERSON BAILEY: Okay.

And scroll down to paragraph (6). And we have already fixed that one.

Those are all the changes I have in -- well, until we start talking about closing.

So that's all the changes I have for Section 11 for design and construction specifications.

Commissioners, do you agree with all the changes we have made today?

COMMISSIONER BALCH: Yes.

COMMISSIONER BLOOM: Yes.

CHAIRPERSON BAILEY: Okay.

We can scroll down to 12, "Operational Requirements."

A (5), there's a comma after "pit." We don't need to have that.

There's a comma after "below-grade tank"

here that's unnecessary.

And then we scroll down to B (2). That paragraph has to do with freeboard and the operator maintaining freeboard and maintaining the log describing such circumstances.

It would be advisable to extend that last sentence to say "to make the log available to the division upon request."

COMMISSIONER BALCH: And to make the log -- you can just add "and to make the log available to the division upon request."

I think that is consistent with language we have elsewhere for logging.

COMMISSIONER BLOOM: I don't think we need "to" in that last line, correct?

"The operator shall maintain a log and make the log available."

CHAIRPERSON BAILEY: Okay. And here's something that we need to think about.

B (4), we do not want this paragraph to circumvent the surface waste management rules that are in effect.

By not putting a limit on the number of wells served we could, in effect, allow circumvention of that surface waste management pit

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by having fluids, drilling mud, disposed of in a centralized pit which should not -- cannot be allowed, given that we do have a surface waste management pit rule.

If we look at page 26, Section 13, that is into closures, so that's -- I'm just throwing this out here as something that we need to be aware of and we need to think about when it comes to closure.

COMMISSIONER BALCH: So can we highlight Section (4) here in yellow?

CHAIRPERSON BAILEY: In yellow, yes.

COMMISSIONER BALCH: We want to make sure we have the wording right.

CHAIRPERSON BAILEY: The same language that we added in paragraph (2) above -- oh, sorry. Nevermind.

Going down to C, "Permanent pits." On page 25 we have some language in F (4) that allows weekly inspection of the pit.

We don't seem to have an inspection schedule for permanent pits.

COMMISSIONER BALCH: Well, nobody asked for one.

MR. SMITH: That's true.

COMMISSIONER BALCH: But would this be a

reasonable addition, to have -- to have the same inspection level for -- that we require for a pit that's there for a lesser duration?

We ran into the same thing where we have siting criteria of 100 feet for flowing watercourses and 200 for rivers, and nobody asked for that change for a playa lake --

CHAIRPERSON BAILEY: Right.

COMMISSIONER BALCH: -- so we were not able to make that change.

CHAIRPERSON BAILEY: But it seems that we would be abdicating our responsibility if we said that an operator could build a permanent pit and then walk away and never have to inspect it again.

MR. SMITH: I think that's -- I think that's probably right.

COMMISSIONER BALCH: If we find a serious flaw in the existing language we can repair it.

CHAIRPERSON BAILEY: And I would suggest that we scroll down to F (4) and take that language and take it back up to C (3), to make it a (3).

COMMISSIONER BLOOM: Is there something -- the end of (2) doesn't look quite right. See how it's hanging, 19.15.17 NMAC?

COMMISSIONER BALCH: Yeah.

CHAIRPERSON BAILEY: That should be deleted.

Now, we can decide whether or not we want to require weekly inspections or if we want monthly inspections.

COMMISSIONER BALCH: This is the same language we used for -- from temporary or from multi-well?

CHAIRPERSON BAILEY: Multi-well.

COMMISSIONER BLOOM: So the suggested language for the multi-well fluid management pit is coming from the EPA as weekly.

CHAIRPERSON BAILEY: Yes. But nobody made any comments on permanent pit inspections.

COMMISSIONER BALCH: I don't see how you would -- I mean, what argument would you use to have it be less than a multi-well management pit? They have the same design construction standards.

CHAIRPERSON BAILEY: The same design and operation standards.

COMMISSIONER BALCH: Yeah. So I would go with the same exact inspection criteria.

CHAIRPERSON BAILEY: Okay. We are all in agreement that we need to have that language?

COMMISSIONER BALCH: The only difference

is the permanent -- the difference is the -- the use. The multi-well management fluid pit is probably going to have operations going on around it for almost its entire lifespan; whereas, a permanent pit -- I don't know if it's -- maybe it is something you would be able to walk away from for substantial periods of time.

However, if you have a leak detection system, don't you have to periodically check the status of that --

CHAIRPERSON BAILEY: You sure do.

COMMISSIONER BALCH: -- some, or whatever?

CHAIRPERSON BAILEY: Sure do.

COMMISSIONER BALCH: Do we have a time period on that?

CHAIRPERSON BAILEY: "Inspections will include monitoring of the leak detection system," is what it says up there, "and maintain a log which is available for the division."

COMMISSIONER BALCH: I think weekly would be reasonable for that.

CHAIRPERSON BAILEY: All right.

COMMISSIONER BLOOM: I would agree.

CHAIRPERSON BAILEY: And that's all I have for Section 12.

Commissioners, do you approve the changes -- the editorial changes and the other changes we have made in Section 12 today?

COMMISSIONER BALCH: Yes.

COMMISSIONER BLOOM: Yes, I do.

CHAIRPERSON BAILEY: And then we come to closure and site reclamation that we will deal with later.

And how soon does later come?

Section 16, "Permit Approvals," page 47.

COMMISSIONER BALCH: So Section 14 we didn't have any changes?

CHAIRPERSON BAILEY: No.

COMMISSIONER BALCH: And 15.

And 16?

CHAIRPERSON BAILEY: We are doing closure reclamations later.

But we are now at Section 16, "Permit Approvals."

Paragraph C is one that I have concerns over, when we have D and E below.

C requires -- talks about conditions placed on an approval, and E talks about denial.

Both of those issues mean that we really don't need to have paragraph C.

Also, if we look on page 45, having to do with exceptions, page 45, number 6, on how to deal with exceptions and requesting hearings.

I think paragraph C is duplicative and unnecessary and possibly contradictory.

So let's go back to Section 16, page 47, and see about deleting paragraph C.

In addition, I don't think we need to have certified mail for every denial for every kind of permit that we have.

COMMISSIONER BALCH: Now in the case of a denial, that's a trigger for the appeal process, which is where the operator would then request a hearing.

CHAIRPERSON BAILEY: Which is handled in E, paragraph E, below, if you scroll down and see D and E, because both of those paragraphs take care of the problems that I've ever seen.

COMMISSIONER BALCH: They do basically say the same thing.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: The only thing that is different, in effect, is one requires the certified mail return receipt requested and the other just says "in writing."

CHAIRPERSON BAILEY: For every single kind of denial I don't think we need to have that.

COMMISSIONER BALCH: Do we run afoul of the chance of someone claiming they didn't have a due process if the response is in an e-mail and they say they never got it; and, therefore, they couldn't file their appeal in a timely manner?

MR. SMITH: Well, you always run a chance of someone claiming a violation of due process. But I think as long as you are required to notify them in writing, I think you can probably use e-mail.

COMMISSIONER BALCH: We have had other cases this year, another case this year, where this question came up about notification.

CHAIRPERSON BAILEY: Right.

COMMISSIONER BALCH: And they found out after the deadline. And that had to come to the commission to get resolved rather than at the division level.

CHAIRPERSON BAILEY: But that was also a problem with the operator not following through on his own responsibility.

COMMISSIONER BALCH: I think the language in E is fine.

MR. SMITH: You could -- you can add a

section, if you want. I think that it logically flows from this notion of putting something in writing that whenever written notification is required the division or the Santa Fe office can use an e-mail or an address that is on file with them or that has been provided to them by the operator.

But I think it's all right as it is.

COMMISSIONER BALCH: That's fine. That was my question, was: Do we cause any problems, but it doesn't sound like we will.

CHAIRPERSON BAILEY: So let's delete paragraph C and renumber subsequent paragraphs.

And those are all the changes that I found with the current draft, not counting some of the areas where we have agreed to put off to a later date.

If we want to go back to the very beginning and look at the definition of "restore," that is only used within the reclamation area. Maybe we should wait for that. Okay.

The next area to look at was -- we have 9 C in yellow, and it maybe shouldn't be in yellow, on page 5.

COMMISSIONER BALCH: 9 C.

CHAIRPERSON BAILEY: Do we still need to

have that highlighted, or was that simply a stopping point for us at that point?

COMMISSIONER BLOOM: We did have some questions, but we may have resolved those.

COMMISSIONER BALCH: Well, I think this goes back to the restore question. The reason we put off this discussion was because we hadn't talked about reclamation. And we are talking here about -- well, no, I guess that's not the same issue.

We put this off until we had discussed siting criteria, which we hadn't done.

CHAIRPERSON BAILEY: So can we remove the yellow?

COMMISSIONER BALCH: And we had the language "reasonable" as well.

There's a few reasons why we may have put off this discussion.

Standardized plans for construction and pit closure might be why it was put off, because we hadn't talked about closure yet.

Do you recall why we were putting off -- delaying this? I think it may have had to do with closure.

COMMISSIONER BLOOM: I think that looks like what we've agreed to.

COMMISSIONER BALCH: Well, I mean, we agreed to.

COMMISSIONER BLOOM: Yeah.

COMMISSIONER BALCH: I mean, we highlighted it for some reason.

COMMISSIONER BLOOM: We can just take it off.

CHAIRPERSON BAILEY: Okay. Well, it appears as though everything is being hung up until we reach decisions on closure. So we could go to --

COMMISSIONER BLOOM: Page 26.

COMMISSIONER BALCH: -- Attachment A.

CHAIRPERSON BAILEY: Okay. We inserted that language from that other section.

COMMISSIONER BALCH: I think this is where we stopped on Thursday.

CHAIRPERSON BAILEY: Uh-huh. A lot of the decision-making here hinges on acceptance or changes of Table I and Table II, because Table I is referenced in 13 A. Table II is referenced in 13 B. And there's Table I also.

So it may be helpful just to have some decision-making on Tables I and II before we ever begin those sections.

COMMISSIONER BALCH: I can't remember the

exact number of constituents that were being tracked under the existing 17, but it was some very large number like 3,102 individual components.

COMMISSIONER BLOOM: Under the current, I think the regulations for closure and site reclamations just look at benzene, BTEX, chlorides, and TPH.

COMMISSIONER BALCH: That's proposal -- that's the proposal.

COMMISSIONER BLOOM: And I believe even the -- a lot of the current language.

CHAIRPERSON BAILEY: Throughout 13 B, in subsequent sections, there are constant references to sampling for benzene, total BTEX, TPH, GRO, DRO, and chlorides.

COMMISSIONER BALCH: And the proposal before us is to reduce that to benzene, TPH, and chlorides.

CHAIRPERSON BAILEY: Exactly.

COMMISSIONER BLOOM: It's the same as -- BTEX is in there as well.

COMMISSIONER BALCH: That is in the table.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BLOOM: It might be -- one thing we might think about doing here is, based on

proponents, frustration with trying to read through the existing language and moving towards the table, I think we might want to stick with the table no matter what we do.

CHAIRPERSON BAILEY: It really --

COMMISSIONER BLOOM: It certainly cleans it up, and there's a lot less repeated language, so we could probably take a couple pages out of the rule.

And as far as I could tell, the current rule sets as two categories, and it's when -- groundwater between 50 and 100 feet, and then groundwater at the depth exceeding 100 feet.

And I don't know if you want to -- there's no room to really indicate here. But benzene in both existing scenarios is 0.2 milligrams per kilogram. BTEX actually remains the same, I think in both the current rule and the proposed rule, which is 50 milligrams per kilogram.

TPH is 2,500 milligrams if groundwater currently is between 50 and 100 feet. It goes above that.

I'm sorry. It's the same, 2,500, the same for GRO and DRO, at 500 milligrams per kilogram.

And chlorides at 50 to 100 are 500

milligrams and then go up to 1,000 milligrams per kilogram in areas where groundwater is in depths greater than 100 feet.

CHAIRPERSON BAILEY: And I think we need to make a distinction and understand the different purposes of Table I and Table II.

The way I have interpreted it is that Table I sets limits to determine whether or not there has been a leak or a large enough leak under a liner to determine whether or not further delineation is to be made or if the contents can simply be -- or if closure happens at that point.

COMMISSIONER BALCH: Basically, you are looking for the triggers for the spill rule.

CHAIRPERSON BAILEY: Exactly. That's the purpose of Table I.

Now, Table II has to do with the closure for waste in place, whether or not to allow on-site burial. So I think we need to make that distinction very clear in our minds when we start thinking about what levels we are talking about. Because my close reading for reclamation and closure requirements said that in 13 A (c), if these triggers for the spill released are not exceeded, then the operator can simply proceed to backfill with 1 foot of soil,

which would leave these limits within 1 foot of the surface.

COMMISSIONER BLOOM: I'm not sure -- I think I read where it said "backfill." I don't know if it was limited to a foot.

CHAIRPERSON BAILEY: Well, it says 13 A (1) -- no, (3) (c) --

COMMISSIONER BLOOM: Yes.

CHAIRPERSON BAILEY: -- says that "the operator can proceed to backfill the pit, pad, or excavation."

If we look at page 40, having to do with "soil cover designs" -- number whatever this is -- it's (2) (a): "The soil cover for closures where the operator has removed the pit contents or remediated the contaminated soil shall consist of the background thickness of topsoil or 1 foot of suitable material to establish vegetation."

COMMISSIONER BALCH: And the "remediated to the division's satisfaction" is quantified in Table I.

CHAIRPERSON BAILEY: Uh-huh. So I will admit, when I was looking through this for the 50th time it struck me that if we allow 20,000 milligrams per kilogram, if groundwater is less -- is greater

than 100 feet, to be present on soil beneath the lined pit, that we have the lined pit backfilled with whatever, and only 1 foot of soil cover.

COMMISSIONER BALCH: Okay. Now, this is predicated on not having triggered the spill rule.

CHAIRPERSON BAILEY: Right.

COMMISSIONER BALCH: So the spills are going to be smaller volumes, below five barrels.

We may have that solved, but it would be -- salt could be distributed by five barrels or less of fluid.

CHAIRPERSON BAILEY: The problem is, how do you know what the volume is if you're just looking at a dark spot in the dirt? You have no clue.

COMMISSIONER BALCH: What does the spill rule say?

CHAIRPERSON BAILEY: The spill rule does not talk about it.

COMMISSIONER BALCH: So it's up to this rule.

CHAIRPERSON BAILEY: It's up to this rule to determine whether or not we can look at a discolored soil and determine what volume.

COMMISSIONER BALCH: So we're talking

about sampling and whatnot?

CHAIRPERSON BAILEY: Right. Because you cannot determine the volume of release by looking at the color of the dirt.

COMMISSIONER BALCH: Well, pretty much the only way you can determine the volume of a release, if you don't have additional information, is going to be excavation --

CHAIRPERSON BAILEY: Right.

COMMISSIONER BALCH: -- and sampling.

CHAIRPERSON BAILEY: So all of these are factors that we need to have rolling around in our minds when we start looking at Table I and Table II and the limits that were incorporated for tests for leaks in the liners, which is Table I; and Table II, closure criteria.

COMMISSIONER BALCH: I think there was a lot of discussion of -- on some of the more volatile components, your TPHs and benzenes, things like that with regard to Table I, but not a lot of discussion of chlorides with regards to Table I.

Most of the chlorides discussion, really, and the modeling has to do with Table II.

CHAIRPERSON BAILEY: That's correct.

COMMISSIONER BALCH: There's not a lot of

guidance from testimony on chlorides except for indirectly, where Dr. Buchanan testified that the chlorides are unlikely to move up more than about 6 inches if they're buried appropriately.

CHAIRPERSON BAILEY: And we have the criteria for --

COMMISSIONER BALCH: And the models -- right.

And all the models that were presented were based on downward transport of chlorides.

So it seems to me that if you want -- we are being asked to make a distinction, perhaps without guidance, about how much chloride is safe within a foot of the surface, and that was not testified to.

CHAIRPERSON BAILEY: That's right.

COMMISSIONER BALCH: So the easiest thing to do --

CHAIRPERSON BAILEY: But we have plenty of testimony on chloride levels and revegetation.

COMMISSIONER BALCH: Yes.

So one approach to take is to require similar reclamation in the case of an observed chloride concentration.

Basically, if you want to backfill, you

may have to remove some soil so that you can backfill for a foot. That would then put Table I into the area where we have testimony regarding reclamation and chloride.

CHAIRPERSON BAILEY: So you're saying remove the soil cover design which allows 1 foot of suitable material for closure?

COMMISSIONER BALCH: I guess what I'm saying is, if you want to have a Table I that says below this limit you are safe to remediate or reclaim, but it's the same reclamation standard, also.

The reclamation standards that were testified to ought to be applied. And many times Dr. Buchanan said 4-foot uncompacted soil. And that's where all the infiltration data that was presented to us for the studies of Dr. Arthur and Mr. Mullins also was presented.

There -- I don't think there's any guidance for what to do if there's 20,000 or 5,000 or 1,000 or 500. There's really no guidance given on any amount of chloride we are going to put, except for indirectly by Dr. Neeper, where he talked about pits that had minimal cover and salt at the surface.

CHAIRPERSON BAILEY: That is right.

COMMISSIONER BALCH: So we would have to be trying to interpret that result, which is not discussed in this context, to apply. And I think that if you want to have any chlorides left under your bank or pit, then it could be remediated or reclaimed to the standard that Dr. Buchanan testified to.

CHAIRPERSON BAILEY: So is it your suggestion that we should not even have the Table I and simply use Table II as our standard for parameters for backfilling the pit?

COMMISSIONER BALCH: I think you have two cases that would occur. If you remove a pit liner or you see some discoloration you would either have to remediate it based on the spill rule.

CHAIRPERSON BAILEY: No, it can't be based on the spill rule.

COMMISSIONER BALCH: Well, you would have to either remediate it --

CHAIRPERSON BAILEY: Based on this rule.

COMMISSIONER BALCH: So if you're remediating, you're removing all of the chlorides and material. It doesn't matter what you put on top of it, you've removed the hazard completely.

If you are restoring it or leaving it -- essentially, you are leaving it in place. If you don't remediate it you are leaving it in place.

And I think that there should be one standard for the waste left in place, and that should be what was testified to and to which we have model data that applies to it as well.

CHAIRPERSON BAILEY: So I am interpreting correctly. Do away with Table I and use Table II?

COMMISSIONER BALCH: I think that that's right.

If we had more information on Table I, then I would be able to make another conclusion. But we were really more presented with what happens if you ever put a cover over any concentration of chloride.

I mean you can go to Google and look up benzene and other constituents. But that's -- I think the chlorides are getting to the surface, or chlorides getting back into the plants is where you run into an issue, as you said, 20,000 milligrams per kilogram you would put on the surface.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: Now, maybe the intent is -- the question is you don't know where --

what -- I'm not sure how this is going to interplay with the spill rule.

CHAIRPERSON BAILEY: You can't use the spill rule for discolored dirt.

COMMISSIONER BALCH: Well, except in the case -- well, I'm not sure. That's what I'm saying. I'm not sure how it interrelates. But at some point in the spill rule you trigger remediation. And you go in there with bulldozers and you remove all the affected soil.

CHAIRPERSON BAILEY: That's also covered in Rule 17.

COMMISSIONER BALCH: Okay.

CHAIRPERSON BAILEY: And we can't cover it here because that's part of the discussion we'll have for varying.

COMMISSIONER BALCH: All right. Well, I think it -- it would be a mistake to have two standards, one not being testified to.

CHAIRPERSON BAILEY: Commissioner Bloom, do you have any comments on this?

COMMISSIONER BLOOM: I definitely understand what you are talking about there, and I share your concerns.

Can we go back to soil cover designs?

Just scroll down. Okay.

My understanding was that there was going to be a backfilling of the dirt that was removed when the pit was excavated, correct?

COMMISSIONER BALCH: This would be similar to if you are closing a pad.

COMMISSIONER BLOOM: All right. So then -- okay.

COMMISSIONER BALCH: Basically --

COMMISSIONER BLOOM: So when you get a pad and you don't have anything removed you could have, I guess --

COMMISSIONER BALCH: The only thing, normally, you --

COMMISSIONER BLOOM: -- 5,000 milligrams per kilogram.

COMMISSIONER BALCH: -- are going to be trucking in gravel or --

CHAIRPERSON BAILEY: Caliche?

COMMISSIONER BALCH: -- caliche or something like that, you know, when you build a pad or when you're done with the pad you shovel it all up and move it, presumably, to the next place you're going to put a pad.

CHAIRPERSON BAILEY: Or the closest

existing drying pad.

COMMISSIONER BLOOM: And so that is currently how that would be mitigated or -- or closed or restored, is that 1 foot of cover be brought in and put into it?

COMMISSIONER BALCH: Or suitable material to establish vegetation at the site, which I think is a nice disclaimer, "background thickness of the topsoil or 1 foot."

CHAIRPERSON BAILEY: "Background thickness of topsoil or 1 foot."

Of course background might be zero to --

CHAIRPERSON BAILEY: 2 inches, which is why we have whichever is greater.

COMMISSIONER BALCH: Yeah. So essentially, I think (a) is for the case of where you do not have to do any remediation.

The proposal, I think the way Commissioner Bailey presented it, was that Table I would have limits for meeting the standard of either -- is it (1) or (a)? It's (2) (a).

CHAIRPERSON BAILEY: It's hard to tell.

COMMISSIONER BALCH: It's either (2) (a) or (H) (1).

And I'll just reiterate that I think if

you're going to have on-site disposal, then you have to treat it all the same.

And if it -- to get that 4-foot means you have to excavate 4 feet, then I guess you're going to limit some of the hazards.

CHAIRPERSON BAILEY: If we look at 13 A (1) -- no, (3) (b), I think this is the first reference to Table I that we have under this.

COMMISSIONER BLOOM: Where it says: "If the results exceed any of the parameters listed in Table I"?

CHAIRPERSON BAILEY: Uh-huh. "The division may require additional delineation" for limits above what is listed in Table I.

(c), the following paragraph, also references Table I. And it's clear that "the operator can proceed to backfill the pit, pad, or excavation associated with the below-grade tank."

And in that case --

COMMISSIONER BLOOM: Yes, I guess --

CHAIRPERSON BAILEY: -- the distance to 20,000 milligrams per kilogram of chloride could be a foot or 2 feet or 3 feet.

COMMISSIONER BALCH: You know, I think the intent was not to try and leave substantial waste,

but I think we have to be careful that the way it's written does not allow that.

CHAIRPERSON BAILEY: That's right. That's my concern.

COMMISSIONER BALCH: And if you will look at table -- Table I and II for greater than 50 to 100 feet, for example, on chloride, Table I would allow below -- would allow within a foot 10,000; whereas, if you were burying it under 4 feet of cover you would only have 5,000.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: So you have a different remediation standard.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: You know, we have gone through other portions of this rule and -- where we have a complex thing, where you are completely essentially replacing four or five pages of the original rule with new text and a couple of tables and determine not the same thing.

But we have determined, in the past deliberations on this issue, that when we get a section like that, that sometimes it's helpful to have the broad philosophical discussion first, determine what we believe the intent of the rule is,

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and if the intent is administratively feasible and also protective for fresh water --

CHAIRPERSON BAILEY: For public health and the environment.

COMMISSIONER BALCH: -- public health and the environment.

And then, after we've come up with those determinations, to then look at the text. So that may be the thing we need to do, is approach it instead of line-wise, we should approach it by what we think we should be doing.

And we've started that discussion already.

CHAIRPERSON BAILEY: Yes, we did.

COMMISSIONER BALCH: I just didn't want you to think we were spending too much time on a side issue. And I don't think it's really a side issue.

CHAIRPERSON BAILEY: No. Because it is one of the more critical decisions that this commission needs to make, one that can have the greatest impact on industry and on the environment and fresh water from the public health.

COMMISSIONER BALCH: And largely, it's the largest change that was proposed to Rule 17.

CHAIRPERSON BAILEY: Yes, probably so.

So maybe if we do have this discussion right after lunch. It's a quarter to 12:00. If we break now for lunch then we'll be able to think clearly or else go to sleep at 1:00.

COMMISSIONER BALCH: Do you need a little more time to consider things?

COMMISSIONER BLOOM: Sure.

COMMISSIONER BALCH: All right.

CHAIRPERSON BAILEY: And that will give us a chance to really focus on the questions before us and how we deal with them.

COMMISSIONER BALCH: And on reflection, I mean, there is some testimony about -- about this -- different limits for surface things. And there were some rather colorful examples of people using this site as a restroom, for example.

CHAIRPERSON BAILEY: Well, why don't we reconvene at 1:00.

(A recess was taken from 11:43 a.m. to 1:00 p.m.)

CHAIRPERSON BAILEY: We will go back on the record.

We were about to begin the high-level discussion on closures, reclamation, Tables I and II requirements, things of that nature.

Commissioner Balch, you seem to have some -- you were the one who suggested it, so you get to go first.

COMMISSIONER BALCH: Well, I would like to go back to the intent of what is being proposed.

And I think the main -- let me summarize it very briefly -- would be the existing Rule 17 technically allows pits -- I think it technically allows burial on the site. But in practice, because of the way the regulation is written, you cannot effectively do either of those well.

So the proponents were asking for what they characterized as common sense changes to the regulation that would make it practicable for them to use those facts and minimum practices.

So the way that -- well, I would like to stop there.

The first question, I guess, is the apparent -- I don't know if it was intentional. Maybe you can address this. But was it intentional, essentially, to disallow, or was it an effect of the way the regulation was written.

CHAIRPERSON BAILEY: I was in opposition to a great deal of the way the rule was promulgated, so I can't give you an unbiased opinion.

COMMISSIONER BALCH: Okay. Well, I guess it comes down to, really, our intent, because the matter is before us.

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: Do we intend to allow producers to dispose on site, essentially, would be the bottom-line question.

CHAIRPERSON BAILEY: If we do, under what circumstances can it be allowed?

COMMISSIONER BALCH: Right.

COMMISSIONER BLOOM: And I would agree that the current rule allows for on-site burial. How much is used for that, I guess I don't have a great understanding.

But one of the things we are charged with is if we allow it to happen, to make sure we're doing so in a way that doesn't hurt fresh water, public health, and the environment.

COMMISSIONER BALCH: So I think, in effect, one of the reasons they are asking for those changes is that they're not able to do it, even though it's technically allowed by the rule.

CHAIRPERSON BAILEY: That has been testified to, yes.

COMMISSIONER BALCH: Yes. So that's the

question before us, right?

I think that there was enough testimony that it can be safely done in certain circumstances.

CHAIRPERSON BAILEY: I will agree with you. I think that we need to be very cognizant of the conditions that were put on as far as reclamation and closure are concerned, because closure is -- goes hand-in-glove with the reclamation, as was pointed out by Dr. Buchanan, by Dr. Neeper --

COMMISSIONER BALCH: Mr. Arthur.

CHAIRPERSON BAILEY: -- and Mr. Arthur --

COMMISSIONER BALCH: And others.

CHAIRPERSON BAILEY: -- Mr. Mullins, that there are extenuating circumstances that are required in order to have that safe burial under certain circumstances, depending on the depth to water; depending on the soil cover; depending on the revegetation; depending on the chloride content.

I think that we need to take all of those factors into account.

COMMISSIONER BALCH: And transport.

CHAIRPERSON BAILEY: And transport, yes.

COMMISSIONER BALCH: And then the other -- the other thing I would like to say, as kind of a

backdrop to this discussion -- and we've -- we have addressed some of these things in earlier deliberations in this matter.

I think that a lot of the testimony that was presented against on-site closure at various chloride levels and depths is based upon designing scenarios which are worst case. All right?

So there's a couple of different ways to look at risk. One is to completely prevent the risk, then you imagine the worst-case scenario and you try prevent it, right?

And I think that that goes into how OCD developed their models for 2007 and 2009.

And then the modifications that Mr. Mullins made in his model were to look at the problem as more of a -- a normal scenario, not all the way out on one end of the bell curve.

So do we interpret the changes in that pragmatically and apply the reasonable -- which, again, is up to each of us individually what is reasonable.

Does it provide a reasonable protection or do -- and that basically sums it up. Because to one a reasonable protection -- I think certainly, if you ask Dr. Neeper, a reasonable thing to do is

completely prevent any release at all, right?

But there may be other interpretations from other people. And for the three of us individually, I think we established in earlier discussion that that's where reasonable comes in, is what do we think is reasonable.

CHAIRPERSON BAILEY: Which is why I came up with my analogy of the closed gate. That yes, you can close the gate, you can put on a padlock, an electronic lock, electrify the fence, and add barbed wire.

I don't think you need to have the barbed wire, which is what I would like to see removed from implementation of a method for disposing of waste that can be done and still protective of fresh water, human health -- public health, and the environment.

COMMISSIONER BALCH: So would it be helpful at this time for the three of us to discuss the testimony, the physical evidence, and the modeling regarding chloride transport, kind of the differences between what was presented this time and what has been presented in previous hearings, and also the differences between Dr. Neeper's model and Mr. Mullins' model?

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CHAIRPERSON BAILEY: We have rejected the use of the previous hearing transcripts. We cannot use them.

COMMISSIONER BALCH: We're not going back to the transcripts.

CHAIRPERSON BAILEY: No, we're not.

COMMISSIONER BALCH: However, there are some things that are pointed out that are different, particularly in Mr. Mullins' testimony. He used different size pulse, for example.

CHAIRPERSON BAILEY: Those areas where he references the previous hearings give us the transcript for this hearing. So, yes.

COMMISSIONER BALCH: I guess what I want to say is, a good portion of the basis of the previous criteria was the modeling that was done by OCD. That's how they determined the limits, the distances, the depths, right? Depths in particular.

CHAIRPERSON BAILEY: Not particularly.

COMMISSIONER BALCH: Well, that's what he's testified. That's what -- the testimony that we have, was that that -- it appears that those models were used.

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: So Mr. Mullins took

those same models, made some modifications to them, perhaps made them a little more pragmatic, and perhaps removed some constraints that we thought were unreasonable, for example, the pulse size, which specifically said a 50-year pulse that was used in the original OCD model.

It was a very thin layer on the top of the aquifer that dealt with the concentration. And it was a 3-foot, 1 meter distance, that transports horizontally that was calculated for. Okay?

So under those circumstances this is where you are going back to generating your worst-case scenario. You have concentrated all of your chlorides that were transported from the waste down to the top inch or so of the aquifer.

And I really liked Dr. Neeper's example of diffusion. He put dye in a cup, and a few days later it had completely dispersed, right?

Chloride is really not going to stay in one place in the aquifer. It's going to disperse throughout the thickness of the aquifer, in everybody's aquifer. And the model's was 63 feet thick.

So Mr. Mullins, instead of going to 63 feet, he went to 16 feet, I believe of the

aquifer, that would be the mixing zone. So in that respect, that's still a conservative estimate.

And then the pulse size, he used -- I think it was 20 years. The reason he went with 20 years is because the pulse size of 50 years, which was used in the -- this is his testimony. And I have citations, if you need it -- could result in more chloride being transported out of the pit than was in the pit to begin with, which is not just worst-case scenario, but beyond worst-case scenario.

So Mr. Mullins testified that he made these changes to try and make the model a little better.

And then he also applied the Multimed model so that you could look at horizontal transport, because that's really what you are concerned with, is what is the impact on a well X distance away from the waste site?

And we had another discussion -- I can't remember if it was Tuesday. It might even have been Monday, the three of us, and we are talking about -- and I believe Mr. Smith was involved, and there was some interpretation of -- of contamination of water up to the 250 milligrams of chloride per liter.

CHAIRPERSON BAILEY: Right. The water

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quality control limits.

COMMISSIONER BALCH: And I believe we had guidance that it was permissible to add chlorides up to that limit.

CHAIRPERSON BAILEY: That is what the WQCC regulations say.

COMMISSIONER BALCH: And to the extent that you have some sort of a mixing zone -- I don't know if it's an inch or 63 feet -- and you have horizontal transport, any chloride that does impact that aquifer is going to be diluted by the time you get to 100 feet.

That is where Mr. Mullins' secondary modeling, the one that you asked for in particular, came into play.

Now, you're talking numbers of a thousand years or 111,000 and change for Aztec, I believe. And you're really straining any model at that point that you have 50 years of infiltration for.

The reason -- so I would, you know, absolutely guarantee you it's not going to be 111,346 years. Nobody is going to know how long it's going to be.

This is where you go back to the physical evidence and why I am fairly satisfied with

Mr. Mullins' models.

The first piece of physical evidence is the existence of the salt waters. These are things that have been in place over thousands of years of varying climate in New Mexico, but still overall relatively dry. And it gives you a limitation on infiltration.

It gives you a natural control. None of the models have that. So in that respect, there's an additional protection that's provided naturally in New Mexico from the salt bulge.

Now, at what depth that salt bulge is going to occur is going to vary depending on your infiltration rate. It will be --

CHAIRPERSON BAILEY: And vegetation.

COMMISSIONER BALCH: -- deeper if you have more infiltration, shallower if you have less infiltration.

But I did look at the models. I got quite in depth. I will certainly try to answer any questions that either of you might have regarding what they do.

But I basically am trying to distill it down to the meaning. And the meaning is Dr. Neeper's models were a worst-case scenario for

the most part, and Mr. Mullins' were based more on a 50-year history of infiltration rate in the northwest and the southeast.

Dr. Neeper's model was based on -- and he says this, and I'm not going to quote him exactly. But in his testimony, Dr. Neeper said there are places in New Mexico that will have this infiltration problem, right, that he used, and that the statute that we are generating does apply to all of New Mexico, not just the southeast and northwest.

MR. SMITH: I would like to suggest that you-all predicate the judgments that you make on this with respect to your obligation to protect groundwater as opposed to your interpretation of WQCC regs and what they allow with respect to -- with respect to the groundwater.

So this notion that it's permissible to add to groundwater up to a particular level, please don't rely on that. Rely on your judgment about the protection of groundwater.

CHAIRPERSON BAILEY: We will rely on the Oil and Gas Act.

MR. SMITH: There you go.

COMMISSIONER BALCH: That would be better.

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: So I think Mr. Mullins' models show that over fairly long periods of time you would have a dilute amount of chloride that would reach a receptor some distance away from the well. He used the number 100 feet because that was the shortest offset that was required by any of the requested siting criteria.

CHAIRPERSON BAILEY: And the results of his modeling showed minimal concentration of chlorides reaching groundwater at any time.

COMMISSIONER BALCH: Now circling back, chlorides was testified to in particular by Dr. Thomas, and Dr. Buchanan as a marker of what other contaminants there might be.

And I think somewhere -- you know, I was reading the transcripts over the weekend again. And somewhere in there there's 3,102 possible constituents that could theoretically be monitored in a pit, that Dr. Thomas and Dr. Buchanan sort of reduced those down to three or four critical components. And with chloride primarily being an excellent marker, if you see the chlorides then you could potentially see the other stuff or any other component that would be involved in a plume. So you have benzene, you have total THP -- there's one

other in the table -- BTEX.

CHAIRPERSON BAILEY: BTEX.

COMMISSIONER BALCH: BTEX, benzene, chloride, and TPH, which is GRO plus DRO.

So "marker" was what was stressed for chloride. I think Dr. Thomas was not at all concerned about chloride contamination in his testimony. He was asked a couple of times directly, and he thought it was -- I think he -- I believe he said it was not, from his point of view as a toxicologist. So he did not have a great concern, but he thought it was a great marker for what else might be in a plume.

So if you see a chloride plume 100 feet away, then you might have some BTEX or benzene or other hydrocarbon.

So with everything being considered, it's not just the chloride, it's what else could be in it.

So I am not a chemist. I will tell you that right now. I did look at benzene in particular, because I was curious about it. It is a known carcinogen. It's highly volatile. It will transport easily in water, as is famously exampled by the fuel tank leaks at Kirtland, where we have a

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plume of jet fuel which contains benzene, among other things, traveling towards a usable water supply.

So benzene will transport easily, so that's a saturated phase. What we are looking at here, for closure, you're looking at an unsaturated phase.

Also benzene, in the environment, will degrade very quickly, within a few days in the soil, where it's exposed to oxygen. So I think when you mix the pit contents, within a day or two you're not going to have any benzene because it's all been volatilized and has gone into the atmosphere as various decayed components.

CHAIRPERSON BAILEY: Over time it would.

COMMISSIONER BALCH: Over time, yes. But -- but the actual benzene itself in soil, if it's not in a liquid phase, is really only going to -- the majority of it is going to degrade within a few days, from my understanding.

MR. SMITH: Was there testimony to that, Commissioner Balch?

COMMISSIONER BALCH: I would have to look deeper for that. Now on benzene levels, there was testimony, I think by Dr. Thomas.

And when you go to pump gas, you're exposed to about 20 milligrams per liter of benzene from the fumes that come off of your pump. I don't know how that compares to 10 milligrams standard in the rule, but I just threw that out there.

Benzene is all around us. There's plenty of things that have benzene in it at those levels.

Now the EPA standard, you can have benzene in drinking water up to five parts per billion, which is a much lower level. That's what they categorize the safe drinking water, five parts per billion.

CHAIRPERSON BAILEY: So there is justification for these chemicals that are used as criteria for determining protection of water and public health.

COMMISSIONER BALCH: I think a lot of the testimony on TPH was that it was going to be relatively immobile in mixed soil, when you are mixing 3-to-1.

Basically, most of the testimony was -- from Mr. Thomas in particular was, you know, he used the analogy of a bus. If it's five blocks away and you step out in front of it you're not going to get hit. There has to be vector, a way for that

material to be transported. And in a nonliquid phase those vectors are limited, benzene in particular, because it's volatile and would not tend to be transported down if it was in a solid phase, and it would degrade.

Again I'm not a chemist, so I'm relying on the testimony that was presented to us, a little bit of reading that I've done on my own about benzene in particular, because it is a known carcinogen. I wanted to know more about it.

CHAIRPERSON BAILEY: And since you teach computer modeling, I would rely heavy on your analysis of Mr. Mullins' work.

COMMISSIONER BALCH: Well, I'm just telling you that the one model is -- is based on a typical set of scenarios.

The other model is based on the worst-case scenario.

I think -- I'm not -- now, as far as -- you know, I really don't want to say that anybody's model is -- because nobody can really know.

The Multimed models are established. Mr. Mullins did not go -- in New Mexico particularly, he did not try to model a particular scenario, partly because he didn't have 1,100 years

or 111,000 years to wait to see what would happen.

And most models, you really don't want to extend that -- to that time frame. You like to model sort of on the order of the amount of data that you have. So you have 50 years of weather data. That gives you an infiltration rate pattern, an average pattern, and you can have pulses for large events somewhere in that phase.

It doesn't cover an extraordinary event. For example, in the '50s there was a large flood in the Pecos. Carlsbad had -- there was 3 feet of water down in Carlsbad for a substantial period of time. You are going to have increased infiltration at that time, but it's a point event.

Now to the extent that we have the salt bulge, which has been testified to as being a result of infiltration patterns over thousands of years --

CHAIRPERSON BAILEY: And Dr. Neeper had many exhibits.

COMMISSIONER BALCH: All of his exhibits had a salt bulge. Basically, every piece of real data we saw had a salt bulge. The depth of the salt bulge could vary, but every one had one.

So to the extent that we had the salt bulge, it's been testified to be formed over some

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period of thousands of years, gives me some comfort that Mr. Mullins' results are not typical, considering long-term patterns of infiltration.

It's not to say that you couldn't end up with a scenario for a particular wet area of New Mexico where you could match Dr. Neeper's results.

Now from modeling, you may recall -- and I think there was maybe 20 or 30 pages of the transcript dedicated to me cross-examining Mr. Mullins on a sensitivity study of his -- of his model.

That was very interesting. You know, I wanted to know what went into the model. He had an understanding of how the variables interacted and whether those variables had a small or a large impact on a model.

Because if you think of a model as a radio with 15,000 dials on it, and if you turn one and turn another one, and if you're careful, you can get anything you want to come out of it.

I just wanted to make sure -- I wanted to make sure that what he was using was appropriate, was representative of values from New Mexico, and that he hadn't gone and tried for something on the

bottom end of the bell curve. I wanted to make sure his results were something that represented the center part of the bell curve, because that's what he was presenting, a typical scenario.

And under similar cross-examination of Dr. Neeper, it -- his model is more sophisticated. It's based off of a well-known simulation code that's used in other parts of science. But I don't think it, before him, had been applied to soils.

So I would have liked to have seen some vetting of that model, or that modeling technique, to a soil scenario.

But what came out in my examination of Dr. Neeper was that he set up the model, it appeared to be consistent with his physics, and I'm going to trust him on that. He's a physicist.

But the purpose of his modeling was to establish sensitivity on the high scale. So if you want to determine a range of possible model values you -- you have a set of minimums and you have a set of maximums. And you turn all the maximums on and all the minimums on, and in two different cases you will end with a range that covers your solutions.

And Neeper's study focused more towards establishing what maximum transport could be under a

worst-case scenario.

So it comes down to how we feel -- in my opinion, for me -- I'm comfortable with distilling it down to the question of: Do you want to completely protect every possible scenario, which is I believe what Dr. Neeper proposed, or do you want to protect against the great majority of typical scenarios, which is what Mr. Mullins proposed.

CHAIRPERSON BAILEY: Which is reasonable protection?

COMMISSIONER BALCH: Well, it may be reasonable to me, or it may not be reasonable to somebody else.

CHAIRPERSON BAILEY: But the statute does charge the commission with providing reasonable protection.

COMMISSIONER BALCH: Yes.

CHAIRPERSON BAILEY: And so that should be our standard. In my mind, if the statute says "reasonable protection," that doesn't mean worst-case scenario.

COMMISSIONER BALCH: Did you have other questions about any of the modeling that I might try to address, Mr. Bloom?

COMMISSIONER BLOOM: Concerning the

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models, one of the things that concerned me about Mr. Mullins' modeling was that he didn't factor in any real-world data or experience. So there wasn't a situation where pit contents had been buried and we could see how far down they migrated over a period of time. We didn't have that. That was a stickying point.

COMMISSIONER BALCH: Both cases, both Dr. Neeper's models and Mr. Mullins', were forward models. They took an established set of parameters, you find everything, and then you try to predict what was going to happen.

COMMISSIONER BLOOM: And Neeper's model was a little more -- it did create an upward migration as well. He points that out in his findings of fact. I think that becomes more relevant.

COMMISSIONER BALCH: There was a lot of discussion, though, about whether there actually was significant upward transport. I think there was quite a bit of going back and forth between him and Dr. Buchanan.

COMMISSIONER BLOOM: Right. So I look at some of the real-world things that we did see and hear about throughout the hearing. And one of them

that comes to mind on, I guess upward migration, is some of the pit -- some of the sites that Dr. Neeper went out to visit where there was chlorides at the top of about 400 milligrams -- or kilograms, that appeared to just about sterilize the ground surface.

He also did some core sampling. He thought -- I think it was Marbob in that case -- and found a concentration of salts right under the liner, so that's something to talk about.

Then in terms of other real-world investigations that we saw between Dr. Neeper's work in the field with Marbob, some of the cases that -- Ms. Martin presented a case that Mr. Boyd spoke about.

We tend to see a lot -- we tend to see a lot of movement down to 25, 30, 40 feet. And that may square with the -- with what we saw in both Neeper and Buchanan's work on the salt bulge. That tends to look -- we find it theoretically, we find it in the models.

We find it theoretically in the models and then in the real world, too. So I think that's interesting and would suggest to me that we really need to be careful in that area between 25 and 50 feet.

COMMISSIONER BALCH: Here's the thing. I mean, this -- some of them, when we are talking about between -- the differences between what Ms. Martin testified to and what, say, Dr. Buchanan testified to. And the modeling, in particular, it was all done assuming unsaturated state for the buried waste. So all the modeling was based on that.

The examples of where you had surface impacts and chlorides at great depths were all from fluid releases, which is more of an operational constraint.

At the time that those releases were made -- and I think we were looking at the various cases that were presented by Ms. Martin, in particular.

And a lot of -- in a lot of those cases, you had a pit that was there and not closed for periods of two to three years, so you have a much greater chance of unobserved infiltration occurring with hydraulic head in a saturated state.

And under that circumstance, I don't think anybody is going to tell you that there's not going to be migration of chlorides. There will be, because you have -- the liquid state is where almost

all of your transport is going to occur.

There was testimony to that from Dr. Buchanan, in particular. That's where he was concerned. His concerns were in the liquid state.

So I think a lot of the cases that we had presented to us -- and they're bad. You don't want to see that kind of an impact to the soil. You don't want to see that potential impact to fresh water. But I think they're all operational phase and would really be addressed by the spill rule at this time, which did not exist at the time they occurred.

So if you had a release like that you would remediate it before it became large impact, which is really why Commissioner Bailey and myself -- and I don't want to put words in your mouth -- but why I believe that we were comfortable with the shorter setbacks for low chloride fluid, was because -- at least for me -- I had bought into the concept of response time cutting the risk during the operational phase.

Now we have been careful when we have been designing construction standards, when we have been talking about the length of time we are going to allow a pit to have fluid in it, the monitoring

that's involved with having fluids in those pits weekly.

So I mean you're kind of getting now to the point where if you came out there after a week and say there had been a leak the second you left, maybe you left something attached to your truck bumper or something and it pulled out the liner, I don't know. Worst-case scenario, the liner is completely compromised, you don't notice it for a week. You have 48 hours to try and remediate it.

You come up with nine days of -- nine days of your maximum period before you got a response.

And that's, I think, going to be what we have already built into the rule. The way we have written it, I think, is going to be protected in the operational phase.

And I think for closure we have to be careful to make sure that we are talking about the burial of solid waste in an unsaturated state, because that is really different from the bad examples, the bad practices that we do have evidence for, primarily in the operational phase.

I think we've patched those up. I think the spill rule addresses other concerns with that. If there's a greater spill, then you have to go out

there and come up with an expensive remediation plan, get an environmental company. You're probably going to have to excavate and haul off a lot of material.

So I think that, you know, largely, the way the rule is forming up under the three of us is going to be protective of fresh water, public health, environment.

CHAIRPERSON BAILEY: I would like to comment on your statements about the abatement plan and the cleanup of -- for the removal of contaminated soils.

The standards that will be used or have been used or will be used in the future are going to be based on Table II, as presented to us in testimony.

And I caution us that we need to be aware the use of that table, as far as any kind of -- that will give the abatement rule, the spill rule, the cleanup of contaminated soils, their bite as to how far does a company have to dig in order to delineate what the chloride content is. And once they reach that chloride limit, then they can limit their remediation of the site.

So when we are looking at Table II, we

need to be aware of the potential uses of those limits, not only for remediation of a specific site where we have a below-grade tank or a multi-well fluid management pit, but also where we have wellsite spills that have resulted in contamination of the soils at the site.

That's one factor.

COMMISSIONER BALCH: So does that currently give guidance from the existing Rule 17?

CHAIRPERSON BAILEY: Yes, it does.

COMMISSIONER BALCH: Okay. So that is a very important consideration.

CHAIRPERSON BAILEY: Yes, it is.

COMMISSIONER BLOOM: The -- and back to the model a minute, Mr. Mullins' model.

I don't know if -- one of the things I think we heard throughout the hearing was that when these pit contents were buried, those -- perhaps with the exception of benzene, was usually volatilized and it can change somewhat. The contents are there almost permanently.

And that being the case, at some point we have to worry about we could have a situation -- I don't think it will be the norm, but I don't think it would be -- I think it would be prudent to

imagine situations where you could get some changes or climate or weather or perhaps a little bit of subsidence where the pit was buried and then you do have water stacking up there. You do have periods where you get a little bit of hydraulic head and perhaps the saturated transport. So...

COMMISSIONER BALCH: I mean, those are definitely -- and you know, I think Dr. Neeper would like us to err on the side of never allowing any contamination. And that's -- that's why he spends all of his retirement coming in here and talking to us about it because he feels strongly about it, and he wants to make sure we understand that point of view.

You know, another comment that came up was there is a lot of unregulated exposure, particularly of heavy hydrocarbons. I think the example that was presented in testimony was an asphalt ruin built up with asphalting, which is a pretty heavy tar, and put it in with some rock and aggregate, spread it out, flatten it. It hardens.

But when it rains you do get hydrocarbon material washing off of that into -- into whatever drainage is on the site. So it's -- the one way to look at it, and I suppose -- you know, I'm not

terribly concerned about the heavier hydrocarbons. They are going to be relatively immobile, and in the ground they are going to turn into solids. And your risk level is going to be on the order of like rain washing off an asphalt road. I was comfortable with that analogy.

Your more volatile hydrocarbons, your benzene and your BTEX, they are not as longlasting in the environment.

In a liquid form, they are incredibly able to transport in liquids to great distances very quickly.

But in a stabilized state, in dry -- in a dry state, they are not going to do much. And then when mixed in soils they are going to degrade relatively quickly. So -- and they are called volatile for a reason. They are not stable at normal atmospheric conditions.

And then the chlorides, I guess, is the other big thing, because that addresses water quality, and then it's a marker for everything else.

You could have transport of something from the pit besides the chlorides, but I think that most of that is going to either be stabilized as a solid or volatilized and be released upwards, unless you

have a worst-case scenario where you do -- fairly soon after the pit is in place or buried -- if you very soon after that end up with a situation where you have substantial hydraulic head for a long enough period to transport all that material down.

So it comes around -- again, I think a lot of the arguments made by NMOGA and their witnesses was, yes, there's a risk, but it's small; and, therefore, you have to weigh the impact of the regulation versus the cost.

And we had a great amount of discussion about what cost meant and what waste meant, and everybody has a different opinion about that.

Mr. Jantz would say that oil up in the ground is not wasted. It's there for some future potential use.

For me, my personal thought on that is a little more short-term, because I think that the revenue from oil and gas is important to the State of New Mexico. So if you, in the short term, make it unavailable, then you deny the State access to that, to those moneys that would come from exploiting those resources.

So for me, I'm willing to apply a reasonableness standard, if you will. I want to be

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as protective as possible while still allowing good business decisions and practices by industry that will keep them producing the resources to the benefit of all of us.

MR. SMITH: Again, I would like to -- and we have had a similar discussion before. But as you know, I've told you that I think that you can take into account economic factors in determining appropriate regulations.

I don't know that you want to predicate what you do on a characterization of waste as being short or long term, because I don't think we have -- at least law that I was able to find -- to help you out on that much.

COMMISSIONER BALCH: Let me be a little more clear on what --

MR. SMITH: Okay.

COMMISSIONER BALCH: -- I want to try to say.

My interpretation of the testimony and the evidence is based upon my understanding of the science.

I have to come up with a decision about what is reasonable as far as risk.

And part of any sort of discussion of

reasonable is going to be, well, what's the reward?

So I am not -- I'm not basing my decision on the reward. The reward is the reward. It's what happens if we -- if we write the regulation such that it allows both.

Maybe I'm not making myself clear at all. I'm not trying to base it off of economics or economic impact or even any definition of waste. But a benefit, I think, of some of the proposed changes to Rule 17 is going to be an environment that will encourage development, and that's good for New Mexico.

CHAIRPERSON BAILEY: And I looked very carefully at the criteria on which the modeling was based, particularly the distance to water, the soil cover that was required, and the revegetation that is an integral part of the process of ensuring that we do not have groundwater contamination; that unless those factors are very clearly laid out, that we run a risk.

But with those factors in place I see a minimal impact on groundwater at the concentrations that would have very little impact for drinking-ability of any water that may be at the depths that were discussed in the model.

That's why I focus so much on the concentrations of chlorides. That's why I am going to be very insistent on the revegetation statements, to ensure that we don't -- that we do have the upward transport of chlorides rather than having it all transported to groundwater.

So under the circumstances that were testified to by Mr. Mullins, I believe that we can allow burial in place, but we do need to be very watchful, as we have been for the rest of the rule, as far as what the limits are for determination of the chloride, BTEX, benzene, and TPH, as set forth in Table II.

Commissioner Bloom, do you have any additional comments?

COMMISSIONER BLOOM: Just a few, to speak to the modeling once more, and then some comments on the contaminant limits we are talking about in Tables I and II.

You know, looking at Mr. Mullins' model I do have issue with -- we haven't seen a reproduction of real-world experiences. I spoke to that a little bit ago.

I have issues with I think the very conservative assumptions that he makes, and that

he's not looking at the situations where we could have, over time, a hydraulic head on a site that has been recovered or could have saturated flow in the future.

Something that was raised by a few of the people that questioned Mr. Mullins throughout the hearing, and that was raised in some of the closing arguments, the findings of fact that -- you know, this is Mr. Mullins' second adventure -- or venture into -- into modeling. He did a model in 2007 and then he did this one. That concerns me.

And in particular, I'm concerned with the -- anything we would do to change standards that relate to depths to groundwater between 25 and 50 feet, because that's where we have seen activity in some of the cases that were brought to our attention:

As Dr. Balch pointed out, these are apples and oranges in a sense, but they could become reality in a future situation where things were buried at 27 feet to groundwater and there was some sort of water or other liquid that arrived on the surface.

And then let me just talk a little bit about the contaminant levels.

One thing I think we need to be concerned with, and OGAP pointed this out well in Finding 70 on page 12. It says: "Industry's proposed waste concentrations in Table I are so high that if a leak from a pit is detected, almost no circumstances would exist where an operator would be required to conduct further sampling for contamination where abatement would be required."

COMMISSIONER BALCH: That was Table I.

COMMISSIONER BLOOM: Yeah. So that's one issue there.

COMMISSIONER BALCH: Commissioner Bailey already pointed out it doesn't jibe very well with Table II, which is going to be for a much more --

CHAIRPERSON BAILEY: Broader use.

COMMISSIONER BALCH: -- broader use and much better remediated.

COMMISSIONER BLOOM: Yeah. Because in Table I you could see a situation where you have a chloride level under the liner of 19,900 milligrams per kilogram and no -- no further digging would take place to understand what had happened there. So it's -- that becomes worse.

And then I see, as commissioner -- Chairman Bailey pointed out, if we were talking

about pit -- drying pad, for example, we might only have one foot of cover over that. So that is an issue.

The -- I think we are assuming that benzene and chlorides are transported at the same rate, but we didn't necessarily see -- we didn't see modeling of benzene transport.

COMMISSIONER BALCH: Benzene in a liquid phase would transport faster than a solid.

COMMISSIONER BLOOM: Benzene, as Mr Thomas pointed out --

COMMISSIONER BALCH: We did have testimony that benzene in an unsaturated state is relatively immobile.

COMMISSIONER BLOOM: Dr. Thomas talked about benzene being a bone marrow poison, and pointed out that some people see that any concentration or presence of benzene would -- could be of concern to some.

We didn't see a -- and I will bring this back to my conversation about waste earlier, which I won't go into at length again.

But we didn't see a cost benefit of what increased benzene allows industry to do versus what the possible health impacts of it could be.

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And again, if we take the one definition of waste being no resource has been spoiled and we don't include economic cost as a part of that, I think we might have an issue there.

Dr. Thomas' study was relatively -- it was based on the six pits that were chosen by industry, three in the northwest and three in the southeast, which perhaps was selective or an atypical sampling.

I again had some concern with -- I understand that Dr. Thomas is a pathologist, but I wonder about his ascertations that benzene would never get into the water or move because there is bentonite clays present.

We have one case here where -- one of the cases that Ms. Martin pointed out, AP77 Pride Energy, where a pit had been put on top of a legacy site and caused flow to take place again. One could see situations where a well or some future activity happens over a site, so I think there are ways that these contaminants and toxins can move.

And Dr. Thomas went on to say that he could have -- he could imagine 100 milligrams or a thousand milligrams per kilogram being acceptable. And I think --

COMMISSIONER BALCH: I think he said a

thousand. I think he went up to a thousand on cross-examination.

COMMISSIONER BLOOM: So --

COMMISSIONER BALCH: He wasn't very afraid of benzene, is what I gathered, not as a -- in an unsaturated state.

CHAIRPERSON BAILEY: And we can require marking of the location of the pit that is buried, so that we don't have building on top.

COMMISSIONER BLOOM: And I think one other thing. It's tough, because we're in kind of a chicken and egg situation here. We talked about contaminants and toxins first. We talked about depths that we're allowing things to be buried first. We also have --

COMMISSIONER BALCH: Or we talk about transport.

COMMISSIONER BLOOM: Yeah, transport.

We also have on-site/off-site as well.

COMMISSIONER BALCH: Yeah.

COMMISSIONER BLOOM: And there's a new door that's been opened which would allow for essentially orphaned waste, where pit contents could be buried not on the --

COMMISSIONER BALCH: Well, the

on-site/off-site issue will probably resolve itself after we determine closure.

I can maybe address some of the concerns that you have, because I did look at this evidence really critically. And I wanted to understand, where benzene was talked about, how would you keep hydraulic head from showing up on a newly buried site.

I think that -- you know, Dr. Buchanan loves reclamation. He has a very evolved idea about the best way to do it. And part of that evolution was he didn't want to pin it down to a particular method, because he pointed out over time the methods have changed. What's appropriate, or considered appropriate now, may not be considered appropriate in five years. Somebody may figure something else out that's better.

If a site is properly reclaimed, contoured to substantially prevent any -- and he said this directly -- you don't want to meet the original contours necessarily, you want to make contours that are going to prevent accumulation of fluids and erosion.

So if we are careful with reclamation standards, then I think, hopefully, that particular

concern of ending up with a little playa on top of a buried site would not be something that would occur, or at least be extremely rare.

I did cross-examine Mr. Mullins extensively, I think for about 50 pages of the transcript, because I'm very critical of people's models, because models can be abused.

I was comfortable that he had spent a significant amount of time understanding the model, the inputs of the model, and how they impacted the model. All you can really do, if you don't like the results of his model, is say, well, the model software itself is not good or not valid for this purpose.

That same model was used to come up with the previous definitions that we already have in the existing Rule 17, and it's an established model that is distributed by the Army Corps of Engineers, used by EPA and others. So I have some trust in the model, and I thought that Mr. Mullins had a very good understanding of how to use it.

And I don't think it was a, you know, I did it for a week in 2007, I did it for a week in 2009, then I did a couple of runs for 2012. I think he spent quite a bit more time on that, and I asked

him directly about that.

The sampling by Mr. Thomas -- by Dr. Thomas. I also cross-examined him extensively about the sampling, because I'm thinking the same thing: Six sites, and we probably have 100,000 legacy sites in New Mexico. We have I don't know how many active wells. I think it is on the order --

CHAIRPERSON BAILEY: 50,000.

COMMISSIONER BALCH: Okay. Well, on the order of 50,000 active wells. And those are going to, in the future, become a legacy site. So that's a pretty big concern. You've got a small number compared to a big number.

I did question Dr. Thomas extensively about that. The sampling was not just one point per site, it was multiple points per site.

The OCD sampling -- he also looked at OCD sampling which was composite. So they would take five points and then average it. And those analyses were consistent with what he found for point sampling. So he went out there and he did -- he did point sampling at each site on the order of around 10 points, 15 points per site, with a total of around 70 to 100 data points. So the number of

samples compared to the number of pit locations is not quite as bad as it sounds.

And I asked him about, you know, is that amount of data enough to give you an idea of the spread in the data, because that's the other important thing. You can have a set of sampling, and if it doesn't cover all of your expected potential outcomes, then could you have only covered a portion of the range, and the other portion is not available for that dataset. So it would be a mistake to think that this is the whole dataset.

He thought that it was representative and that, of course, is his opinion.

But he did seem, in my mind, to have a good scientific understanding of sampling. The samples were well handled. They were transported to the labs in sealed vials, et cetera, and so on. And all of this is in the testimony. So there was little chance for any contamination or degradation of the samples.

Benzene. In particular Dr. Thomas, he liked talking about benzene. So I -- I guess I don't think that -- I'm going to characterize it -- there was a little -- very little discussion about it. And he has it on page 457, line 21, through

page 458, line 12. He talked about benzene there.

Another benzene discussion on page 63, lines 10 to 18.

He talked about benzene in risk of transportability on page 465, lines 6 to 22.

Pathways. One thing we haven't talked about yet here in any of the modeling is the bentonite clay thing. And that was brought up by Dr. Thomas and also by Dr. Buchanan.

It wasn't really addressed. It was not a component in any of the models, but does provide another way, not only to give you a barrier to flow vertically, but it also tends to bind up some of these free anions and make them stable.

Anyway, on the benzene, he talked about drinking water risk on page 468, line 17, to -- I think it's 470 -- it must be 467, line 2, and again on page 470, line 13, to page 470, line 9, page 471, line 9.

He talks specifically about general categories of hydrocarbons around page 472, line 7 to 21.

He specifically stated he was not concerned with benzene levels. And I think famously, he said under a thousand and so on.

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Page -- that's in the transcript around page 481, lines 6 to 19 or so.

If you are interested about a sample description, I cross-examined him. That was on page 499 to 501 or so. I asked him a good number of questions about his sampling.

And did he give -- on page 509, lines 13 through 19, that's where he's talking about you will get a 20 ppm exposure from gassing your car, and people do that sometimes once every couple of days.

And there -- benzenes are in any kind of solid you can imagine. There's already a good amount of environmental exposure.

So I think that the benzene was discussed. He was largely unconcerned with it in an unsaturated state. And since they are volatile, I think long-term, your risk from benzene is that it does volatilize and go up into the atmosphere above the site. That will be largely within the first several days while they are in closure and mixing. It's the way I personally interpret that to be, because benzene is not stable in soils.

Plants. Benzene is not toxic to plants, so it's not going to impact any vegetation.

While the impact of benzene in your pit

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will be for a few days you have volatilized for some period of time, although relatively short, compared to the life of chlorides and things like that in the waste. It's going to be volatilized and released to the atmosphere as fractional components.

Other than all of that testimony that I just mentioned -- like I said, I'm not a chemist. Benzene is scary. If you have a liquid phase I would be very concerned about it. Like I said, that transport could be much faster than a chloride.

But I think in the context of on-site burial with mixing, which is going to take some time, plus any benzene that's in the pit is already going to have been sitting there after it was drained and while it is drying.

I think you may run into a case where you couldn't find very much benzene when you sample if you wait an extra day or two. So you could go out there and find 10 on day two and 5 on day four. I don't know.

That's my interpretation of the short-lived nature of benzene in soil, a few days.

CHAIRPERSON BAILEY: But we did not have any testimony.

COMMISSIONER BALCH: We did not. We did

not have testimony about the life of benzene in soil; just that in an unsaturated state it was not a risk to groundwater.

CHAIRPERSON BAILEY: Okay.

COMMISSIONER BALCH: Or a drinking water risk. And I think I did point out the five parts per million drinking water standard for benzene. That's what EPA will allow.

COMMISSIONER BLOOM: Correct, the Safe Drinking Water Act.

COMMISSIONER BALCH: Yeah.

CHAIRPERSON BAILEY: So are we ready to talk about Tables I and II?

COMMISSIONER BLOOM: We can do that.

CHAIRPERSON BAILEY: Because those form one of the foundation determinations for deliberations that come -- that ensue.

We've had some discussion on Table I before we broke for lunch. The proposal was made that we do not accept Table I because of the problems that were seen as far as remediation of contamination; the requirement for revegetation, which could not possibly survive if the chloride content a foot down is 20,000 milligrams per kilogram.

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So if -- I've been looking through the proposal. If we reference Table II instead of Table I, we may want to consider that in our deliberations. Because if we go to Section 13 on page 26, we can go to "Closure Requirements and Site Reclamation Requirements."

A begins with: "Closure where wastes are destined for disposal at division-approved off-site facilities," where waste would be dug up and hauled away, both fluids and solids.

So this section would apply to permanent pits, temporary pits, multi-well fluid management pits, drying pads, and tanks, our universe of reclamation areas, facilities, and tanks associated with closed-loop systems and below-grade tanks.

So that -- what is included in A has to do with all types of closure at the facilities that we regulate.

I suggest that we start looking at -- paragraph by paragraph and resolve any questions or decisions to make as we go through.

Let's look at paragraph (1), where "the operator of any pit, drying pad, and tanks and below-grade tanks shall not commence closure without first obtaining approval of the closure plan

submitted in the permit application."

And here, we go back to what the contents of the permit application will require, as far as whether the OCD can approve it with -- with the wastes that are going to be picked up and hauled away, which is discussed in paragraph (2) for -- closing the pit means removing all contents including the liners and taking them to a division-approved facility.

Paragraph (3), I would suggest that we include: "The operator of a permanent or multi-well fluid management pit is not required to sample under the liner if no leaks are detected in the system during the use of the pit."

I think that's the first really controversial area to make a decision.

COMMISSIONER BALCH: Well, this is another -- another case where you are being very specific in the first sentence and then you're throwing a whole basket of things into the second sentence.

I think, unless it reads only in regard to -- you could read it -- (3) as being only in regard to multi-well fluid management pits, but then later on in the same paragraph you're talking about

pits or below-grade tanks. So to me, it's a little confusing about -- what are we talking about here? Are we talking about multi-well fluid management pits or are we talking about everything?

CHAIRPERSON BAILEY: Well, we're not talking temporary pits, because the temporary pit doesn't have a leak detection system.

COMMISSIONER BALCH: Neither does a -- necessarily -- a below-grade tank, right?

CHAIRPERSON BAILEY: A double-walled below-grade tank has a leak detection system.

COMMISSIONER BALCH: Okay.

CHAIRPERSON BAILEY: And that's the only kind that's being approved now -- or as long as it shows integrity. The single-wall systems, when they don't show integrity any longer, have to be removed. We talked about removing them from service and all of that.

COMMISSIONER BALCH: Right.

CHAIRPERSON BAILEY: So actually, permanent pit or multi-well fluid management pits are the only circumstances where we would have a liner system for a leak detection system.

COMMISSIONER BALCH: So perhaps we should separate those two. We should probably deal with

them separately in the regulation.

CHAIRPERSON BAILEY: Or we could combine them and have them separate from the other circumstances.

COMMISSIONER BALCH: Right. Combine those two, and then have the other circumstances, which are going to be -- the other circumstances are going to be temporary pits, and then the other circumstance besides that is going to be a below-grade tank.

CHAIRPERSON BAILEY: So we could replace the phrase "in all other circumstances" with the other applications. "The operator of temporary pits, drying pads, and tanks associated with closed-loop systems and below-grade tanks shall test the soils beneath the pit and below-grade tank as follows."

COMMISSIONER BALCH: I think if you separate the context, then points (a), (b), (c), and whatever are going to make more sense.

CHAIRPERSON BAILEY: Okay.

COMMISSIONER BLOOM: I think we are doing two things. One is, I think with the clarity of how the rule is written, and the other is should a sample be taken of the ground underneath a permanent

or multi-well fluid management pit when there was no alarm from a leak detection system during the use of the pit.

I think we had a little testimony on this. The cost of the test, I believe, was estimated to be, by Mr. Gantner, of $300 to $500.

I -- one situation that concerned me is that the leak detection system never detected a leak during operation, but during the removal of the liners you could have solids, you can see the liquids being run off, and you're going to have muck down at the bottom when pooling this stuff up, and you could actually have a mess that's left on the ground after you have picked everything up the best you can.

So we might want to require a test at that point.

COMMISSIONER BALCH: Perhaps if I had a better understanding. In my mind, the five-point composite sample is you go out there and you take five samples and you mix them together and send them to a lab and then they check for some contaminants.

COMMISSIONER BLOOM: Correct.

COMMISSIONER BALCH: The proposal is that the components we are going to be looking for are

going to be BTEX, benzene, chlorides, and TPH.

Of those, probably the only thing you are going to have is a multi-well fluid management pit or a permanent -- now, a permanent may be a little different.

But in the multi-well fluid we are talking about completion fluids, so chlorides. And we have already discussed that there shouldn't be any backflow -- significant backflow of hydrocarbons, et cetera. So you're back to chlorides. That's one of the things that is in the table, if you look at it.

What is your feeling on the effectiveness of the five-point sample? Because here's the thing. If you have a multi-well fluid management pit that's the size of this building -- probably bigger. It could be 20 acres, 30 acres -- and you take five samples, who's taking the samples? It may be a company that's hired by the operator. Is it going to be the operator? Is it going to be the OCD? Who is that, in practice?

CHAIRPERSON BAILEY: It says the operator shall test the soils.

COMMISSIONER BALCH: Okay. So I mean, five points is pretty sparse for what could be a

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pretty large area.

I understand your concern. I guess I just don't know how to address it. I'm not sure the five-point sample is going to -- I guess I'm saying that a five-point sample may not give you the reassurance that you are looking for.

CHAIRPERSON BAILEY: Would you prefer that all soils -- all below-grade facilities, and that would mean below-grade tanks, drying pads, temporary pits, multi-well fluid management pits, temporary pits, shall test the soils beneath the liner or below the grade -- below-grade tank?

COMMISSIONER BALCH: Now, there was testimony -- I think that's -- before lunch I mentioned there was colorful testimony about how you ended up with a wet spot that could have chlorides in it.

You know, my understanding of the way the closed-loop system drying pads are operated, we have a line tray that the drying pads are in, and that has a sump associated with it, and it's there for a short duration, primarily during the solids.

I don't know if that is really the same thing as -- I guess the risk of that, to me, would not rise to the same level as having the substantial

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amount of fluid in place, even with liners, for some months.

So I don't know if those drying pads are a particularly great risk for contaminating large areas of soil with chloride.

CHAIRPERSON BAILEY: Simply because the size of a drying pad isn't going to cover --

COMMISSIONER BALCH: The drying pads are going to be small. There's already adequate protection from liquids impacting surface soils. The size of the impact would be relatively small, if there was one, and so the rule would address it. If there was some catastrophic failure of the system it would not be a release greater than five barrels.

CHAIRPERSON BAILEY: So how would you suggest the introductory paragraph of (3) to read?

COMMISSIONER BALCH: Well, we have, as you have mentioned in (a), a universe of a few things that we can look at. We have the temporary pits, we have multi-well fluid management pits, we have permanent pits, we have below-grade tanks, and potentially we have closed-loop system drying pads.

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: Those are the things you are worried about getting chloride contamination

on the surface that you would want to identify before you closed the site and left and will remediate.

I think that they are all substantially different things from one another. A multi-well fluid management pit is primarily going to have chlorides, although there will be other chemicals in that that could be used in completion, trace amounts.

A temporary pit will have drilling mud. It could have some muddles of hydrocarbons in it from going through formations that have hydrocarbons in it.

A below-grade tank is primarily going to be water that is run off of a production tank or a separator. So you'll have water with hydrocarbons from that water pit pouring in it.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: And then a drying pad from a closed-loop system is primarily going to be the solids that are shaken out, not with a large amount of water associated with them, and that water will be caught in a sump.

The only thing I see in there that's common is chlorides. I think they are all

different. And I think I already mentioned that a five-point sample would probably be pretty ac- -- pretty good for below a tank, because you are talking about a limited area. But that same five-point sample becomes almost meaningless if you apply it to a 40-acre multi-well fluid management pit. You'd have to sample every 8 acres.

COMMISSIONER BLOOM: I don't think we want to indicate that they would be that big. I mean, they might have 40-acre feet, which would be over an acre 8 feet deep, right?

COMMISSIONER BALCH: Right. Yes.

But basically, you're taking something that may be a quarter of the size of this room to something that may be the size of this building, and you are doing the same sampling.

I really didn't want to throw that wrench in there. I'm just kind of saying that they are all different.

I guess I'm not concerned too much about the drying pads. I think there's already adequate protection in place. I would only think if you saw discolored soil, as you would under the spill rule, when you picked up the drying pads and the liner that would be when you would test it.

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CHAIRPERSON BAILEY: The spill rule will not apply to soils that are simply discolored.

COMMISSIONER BALCH: Okay.

CHAIRPERSON BAILEY: Because you cannot determine the volume.

COMMISSIONER BALCH: That has to be written into this.

CHAIRPERSON BAILEY: Exactly.

COMMISSIONER BALCH: Okay.

COMMISSIONER BLOOM: And I will just point out to you that currently, the regulation as it stands is that a five-point sample is taken under any temporary pit or permanent pit, both of which are limited to 10 acre feet of water.

CHAIRPERSON BAILEY: Sure. An operator could dance around, but this has held pretty well for this period of time.

COMMISSIONER BALCH: So I think that you -- you mentioned there was a $500 cost associated, we heard that in testimony, with taking the five-point sample.

COMMISSIONER BLOOM: I believe it was $300 to $500.

COMMISSIONER BALCH: And that's merely the cost of the analysis, because they're out there

collecting it themselves.

You know, I think that to me, in my mind, the intent is if you think that there was a release, you would want to sample that area. That would be the discolored soil standard. I think, just -- just randomly saying you'll do a five-point sample beneath the entire area of a permanent pit does not necessarily provide you with data that would allow you to determine there wasn't a release.

If, however, you picked up that liner and you saw a wet area, then you would want to sample that wet area.

CHAIRPERSON BAILEY: Which would give you skewed results if you have a temporary pit that covers 10 acre feet of -- just say that the contamination that resulted in that discolored soil was widespread over the entire base of the contamination of the pit.

COMMISSIONER BALCH: On the other hand, and I think correctly in the closings, in the findings by Dr. Neeper and I think also by OGAP -- I think particularly Dr. Neeper.

You know, say you have a localized release in the pit and it's going on for some unknown period of time, which in a permanent pit could be a very

long time, or a multi-well fluid management pit could be four, four and a half years or so, that you may have a relatively small discolored or wet area that could be vertically quite extensive.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: And that the intent is to capture that, not capture the entire area under the -- underneath the liner that wasn't impacted. You want to make sure if there was a localized impact that it wouldn't impact groundwater. I think that's the intent. How do you get at that, I don't know.

CHAIRPERSON BAILEY: And because we are talking strictly in an instance where waste is going to be picked up and removed to an off-site facility, including the liner, and then backfilled and revegetated, it almost sounds like you are arguing that we don't need to have testing of the soils because we can't get a representative sample or determine what the depth is --

COMMISSIONER BALCH: Well, I guess, you know --

CHAIRPERSON BAILEY: -- of any kind of --

COMMISSIONER BALCH: -- is the intent, I think -- I'm not really saying that. At least I

hope I am not saying that.

I think the intent is you want to protect the groundwater, right?

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: How do you do that in the case of a localized leak? I'm not saying not to collect five-point samples. I'm just saying that it may not be representative if you get to water-driven larger areas.

CHAIRPERSON BAILEY: I don't have an answer to that one.

COMMISSIONER BALCH: Yeah. So I mean, I don't know what my understanding of this spill rule was. But if there's a known volume, certain levels are triggered.

The problem here is if you just have a wet and discolored area you don't know what the volume level was.

There was testimony that if there were a significant leak that you would see changes to the level of the fluid in the pit --

CHAIRPERSON BAILEY: Here's a suggestion.

COMMISSIONER BALCH: -- that we're looking at every week or so.

CHAIRPERSON BAILEY: Here's a suggestion.

If for those facilities where the waste material is going to be picked up and hauled away, if a test is made of any contaminated soil area, and use the criteria from Table II, whatever levels we determine on that, then that would determine if excavation to bring the levels down to the limits of Table II would be necessary in that soil beneath those facilities.

COMMISSIONER BALCH: And I think I -- I think I see what you're saying. That would seem to be a -- maybe a little more appropriate, if the goal was to protect the groundwater and allow appropriate remediation.

COMMISSIONER BLOOM: What if the language was along the lines of a five-point composite sample shall be taken from any area that appears to have contamination or otherwise from underneath the liner?

CHAIRPERSON BAILEY: So it would say -- 13 A (3) (a) would say: "A five-point composite sample taken from any obviously discolored" --

COMMISSIONER BALCH: Or wet soil.

CHAIRPERSON BAILEY: -- "or wet soils."

COMMISSIONER BLOOM: Or otherwise from under the liner.

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CHAIRPERSON BAILEY: These are under the liners.

COMMISSIONER BALCH: What I think Mr. Bloom is saying, if there are no wet or discolored areas you just take one five-point sample across the entire area and hope that it's representative.

If you do have a -- if you do have a wet or discolored area, then you sample that area.

CHAIRPERSON BAILEY: But if you don't have --

COMMISSIONER BALCH: Then you just do one five-point composite sample --

CHAIRPERSON BAILEY: What's the point of that --

COMMISSIONER BALCH: I don't have an answer.

CHAIRPERSON BAILEY: -- if you don't have any --

COMMISSIONER BALCH: I don't think it has a particular point, even in the example that Mr. Bloom gave, where you could have some release from the pit liner as you are rolling it up or bulldozing it into a pile or wherever it is you are doing to get rid of it.

I think that if there were such releases they would probably be relatively minimal, at least for the four constituents in Table II.

COMMISSIONER BLOOM: I guess I'm thinking of a case where perhaps there was a leak which was --

COMMISSIONER BALCH: Could have dried up and not discolored the soil?

COMMISSIONER BLOOM: Exactly. It was below the liner and then the liquid level fell and then somebody came out and said, look, it's a leak above the liner, above the liquid level. There's a hole in the liner penetration, so they go out and they fix it.

And then six months later the closure and site reclamation begins and there is no longer any evidence of a leak, but perhaps there was one.

CHAIRPERSON BAILEY: There would be evidence if there was any hydrocarbons, because it would be stained. If there were high chlorides you couldn't see the salt dust.

COMMISSIONER BALCH: And I think if you have dry soil and you apply a liquid to it you're going to have a noticeable stain.

To me, the idea is you want to be

protective, if there's evidence that there was a release. I think a five-point composite sample in general, underneath a tank, would probably be fairly representative. Under a large pit might not tell you a whole lot.

CHAIRPERSON BAILEY: So (3) (a) could read: "A five-point composite sample, to include any obvious stained or wet soils, shall be taken under the liner or the below-grade tank, and that sample shall be analyzed for the constituents in Table II of 19.15.17.13."

COMMISSIONER BALCH: So basically, you would make sure your five-point sample included anything that looked like it was disturbed.

CHAIRPERSON BAILEY: Right. So after the "sample" insert the words "to include any obvious staining or wet soils."

COMMISSIONER BALCH: And then for Table II.

CHAIRPERSON BAILEY: Right. We still haven't dealt with paragraph (3) up above. We needed -- there was agreement not to exempt multi-well fluid management pits from sampling under the liner?

COMMISSIONER BALCH: I think Mr. Bloom's

argument --

Well, I'm not going to make the argument for you.

But I think his idea was that if you had at least one test there would be some assurance.

COMMISSIONER BLOOM: It could just read: "The operator shall test the soils beneath the pit or below-grade tank as follows."

CHAIRPERSON BAILEY: So it would be --

COMMISSIONER BLOOM: And I think we also need to say --

CHAIRPERSON BAILEY: So it would be deleting the first sentence in its entirety.

COMMISSIONER BLOOM: Correct.

CHAIRPERSON BAILEY: So it would begin -- yes.

COMMISSIONER BALCH: It would really be: "the operator shall test the soils beneath the pit or below-grade tank as follows."

CHAIRPERSON BAILEY: Right. So go ahead and delete the prior sentence.

COMMISSIONER BLOOM: Do we want to say below the -- the closed-loop system pad liner?

CHAIRPERSON BAILEY: Okay. Go ahead and delete in the -- the pit, drying pad for closed-loop

system.

COMMISSIONER BALCH: So let me ask a question. And this was why we had that colorful example presented to us.

If it is very localized but a high concentration of chloride or some other component and you sample it, then we find -- we found -- under the drying pad you found higher than average chlorides, what happens then?

CHAIRPERSON BAILEY: Well, it's triggering the further investigation.

COMMISSIONER BALCH: Okay.

CHAIRPERSON BAILEY: To determine how far down the contamination goes.

COMMISSIONER BALCH: And the practice of further investigation, we call an environmental company to come out and do an evaluation, or you call the OCD and we come out and look at it or...

CHAIRPERSON BAILEY: Normally, they will take the backhoe and remove some soil and they test --

COMMISSIONER BALCH: Test again?

CHAIRPERSON BAILEY: -- again until they reach a level that's acceptable on Table II.

COMMISSIONER BALCH: Okay. That seems

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appropriate.

CHAIRPERSON BAILEY: So are we happy with A through (1), (2), (3)?

COMMISSIONER BLOOM: (a) and (b)?

CHAIRPERSON BAILEY: Well, (b), we need to change Table I to Table II.

COMMISSIONER BALCH: I guess I sort of selected the terms of the drying pads for the closed-loop system.

First of all, we have been treating them differently throughout the regulation.

And second of all, with the liner and the sump and the regular inspection, that there is a very minimal risk of any sort of substantial contamination from a closed-loop drying pad, particularly when you consider you're not dumping water onto it, you are dumping wet --

CHAIRPERSON BAILEY: Right.

COMMISSIONER BALCH: I don't know that it's really applies. I mean, this may be apple, orange, banana, piece of steak, because we're not even into fruit anymore.

CHAIRPERSON BAILEY: But it simply is ensuring that there is a trigger to further delineate those chloride levels or the TPH levels or

the BTEX or benzene. And if the next scoop of -- from the backhoe shows that there's no longer any contaminated soil, then it's a nonissue.

COMMISSIONER BLOOM: Yeah. In the existing rule the earth underneath the drying pad is treated the same as earth underneath the permanent pad, I believe, or the sample taken.

COMMISSIONER BALCH: Well, I believe one of the criticisms that industry presented to us in testimony about the existing rule is that it did tend to broadly lump things together that did not incorporate together. That is kind of why I was bringing this point up, and if both of you were more comfortable leaving under closed-loop drying pads, I have no problem with it. I just wanted to point out that I think it's substantially different and lower risk than the other three.

CHAIRPERSON BAILEY: It is. But one more scoop of the backhoe is --

COMMISSIONER BALCH: Well, okay. So the cost is -- you take your -- your sample, send it in, pay your $300 to $500. And then you take the scoop and then you take your sample and spend another $300 to $500.

CHAIRPERSON BAILEY: Only if you see more

contamination.

COMMISSIONER BALCH: Okay. So if you take your scoop and you don't see any discoloration then you don't have to take a sample?

CHAIRPERSON BAILEY: I wouldn't think so, not under these criteria.

COMMISSIONER BALCH: All right. I could just see somebody digging, sampling; digging, sampling; digging, sampling. So it would be up to them to dig enough to where they can see, as far as the discoloration.

CHAIRPERSON BAILEY: Or smell.

COMMISSIONER BALCH: Or smell hydrocarbons. Okay.

CHAIRPERSON BAILEY: So that word should be "evidence"; to see any evidence of.

COMMISSIONER BALCH: Well, don't use the word "see" evidence.

CHAIRPERSON BAILEY: Would not be aware -- would not find any other evidence.

COMMISSIONER BALCH: Right. That would work. Any -- "any evidence of contamination"? Would that be -- instead of "obvious stained or wet soils"?

CHAIRPERSON BAILEY: Yes. Because the

smell could be just as indicative as the color.

COMMISSIONER BALCH: Or maybe it would be better to be a little more inclusive to say "including any obvious stained or wet soils or other evidence" --

CHAIRPERSON BAILEY: That works.

COMMISSIONER BALCH: -- "of contamination."

CHAIRPERSON BAILEY: Can you go ahead and insert that, please?

COMMISSIONER BALCH: After "stained or wet soils" in paragraph (3) (a) add "or other evidence of contamination."

COMMISSIONER BLOOM: I would want to see that a test was done under any liner, and I think that's what this actually gives us, as I read through it. So...

COMMISSIONER BALCH: There's a liner underneath a closed-loop drying pad. I guess, by my argument, the risk would be substantially lower under a tank liner as well.

COMMISSIONER BLOOM: Sure.

CHAIRPERSON BAILEY: So in (b) we have changed that to Table II, which is the trigger for further delineation.

If we go down to (c), I have some comments on that.

COMMISSIONER BALCH: That would be Table II, now, for sure.

CHAIRPERSON BAILEY: Yes.

Plus, "compacted" is in there, and Dr. Buchanan was very clear that you did not want to compact soils if you wanted to have any kind of rooting for revegetation.

COMMISSIONER BLOOM: We would remove the word "compacted," then?

COMMISSIONER BALCH: I would agree.

COMMISSIONER BLOOM: And then it seems to me that we did want to leave the operator and/or the surface owner the right to decide how that land will be treated. I mean, if they are going to put a road there you might want to compact it. But if it's going to be reseeded for grazing --

COMMISSIONER BALCH: And that was the argument, is what if they wanted to put a pad there.

COMMISSIONER BLOOM: Right.

COMMISSIONER BALCH: I think there were also arguments from Dr. Neeper, and perhaps from Mr. Jantz on cross-examination of one of the witnesses, that -- I think Dr. Neeper, in

particular, did not feel that you should construct over any waste. Because the idea would be you put asphalt down there and you put up a basketball court, and then 30 years from now it's essentially soil, but it hasn't been remediated.

I'm just -- that was the argument that was made.

CHAIRPERSON BAILEY: But with removal of the word "compacted," that doesn't deny the ability to compact it for those uses.

COMMISSIONER BLOOM: Yeah.

CHAIRPERSON BAILEY: I asked Dr. Buchanan very clearly what he recommended for the non-waste-containing materials that would be used for backfill.

He suggested that we look at the characteristics that are required under the mining and minerals division reclamation.

And I don't think we can do that. We cannot use anything that was not testified to or is not part of the Oil and Gas Act that we are talking about.

So my suggestion is to have the word "uncontaminated" put in before "earthen material," to ensure that they're not replacing with high

chloride earthen material.

COMMISSIONER BALCH: So you're saying uncontaminated earthen material?

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: Instead of non-waste-containing?

CHAIRPERSON BAILEY: Well, non-waste-containing uncontaminated earthen material.

COMMISSIONER BALCH: So you don't want them bringing in structure or waste full of concrete slabs or something.

CHAIRPERSON BAILEY: We don't need concrete and we don't need soils that don't meet Table II limits, either.

COMMISSIONER BALCH: Okay.

COMMISSIONER BLOOM: Correct.

COMMISSIONER BALCH: I believe that makes sense. I don't think we need anything else.

It would be probably better, as Dr. Buchanan said, to use the existing standard from mining. But -- because they have an awful lot of experience with reclamation.

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: They really do.

CHAIRPERSON BAILEY: But that was brought up too late in the hearing.

We could have a comma before "uncontaminated." Yes.

COMMISSIONER BALCH: I think comma, "uncontaminated," comma. Another comma at the end of "uncontaminated."

CHAIRPERSON BAILEY: Okay. So a comma after "containing" and a comma after "uncontaminated."

COMMISSIONER BALCH: It's a further modifier.

CHAIRPERSON BAILEY: Yes.

Are we happy with paragraph (c)?

COMMISSIONER BALCH: I believe I am.

MR. SMITH: That should be "drying pads," I think, not "tying pads."

CHAIRPERSON BAILEY: Oh, yes. All right.

Now, Section B deals with closure where wastes are destined to be buried either in place or into nearby approved pits or trenches.

COMMISSIONER BLOOM: Madam Chair, perhaps a five- or ten-minute bathroom break?

CHAIRPERSON BAILEY: Let's do that. Let's reconvene at --

COMMISSIONER BALCH: Before we go off the record, just before I forget, we have been in Section (a) referring to Table II, and we have also talked extensively about Table I not being necessary. So it would still be Table I, but renumbered as Table I.

We cannot have a Table II without Table I.

CHAIRPERSON BAILEY: Okay. So we are not going to be using the preferred Table I. And so we will renumber the proposed Table II to become Table I.

COMMISSIONER BALCH: So references to Table II that we just put in need to become Table I.

MR. SMITH: And Table I needs to be deleted and Table II relabeled Table I.

CHAIRPERSON BAILEY: Yes. The tables are on page 42.

COMMISSIONER BLOOM: You might be changing the title to that at some point, too.

COMMISSIONER BALCH: Yeah. We can change it -- when we get to it we can change the title.

COMMISSIONER BLOOM: Yeah.

CHAIRPERSON BAILEY: Let's come back in at five to 3:00.

(A recess was taken from 2:43 p.m. to 2:56

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p.m.)

(A recess was taken.)

CHAIRPERSON BAILEY: We were beginning consideration of Section B of 19.15.17.13, considering where closure and wastes are destined for burial in place or into nearby division-approved pits or trenches. It applies to temporary pits as well as drying pads and tanks.

COMMISSIONER BALCH: Should we say other solids and solids associated with closed-loop systems? I don't know.

CHAIRPERSON BAILEY: It says: "This section applies to temporary pits as well as wells."

Shouldn't it be a comma after "pits," strike the word "and," strike "wells" and "and," to read: "This section applies to temporary pits, drying pads, and tanks associated with closed loop systems."

COMMISSIONER BALCH: Now, this is supposed to be temporary pits and closed-loop system waste, solids from a closed-loop system. I think that's what it's supposed to be talking about.

The only two sources of material that would be appropriate for off-site closure would be material from the drilling pit or material -- solid

material from the closed-loop system for the drying pads.

CHAIRPERSON BAILEY: So you're saying that no solids left over from a permanent pit or a multi-well fluid management pit?

COMMISSIONER BALCH: Well, I think multi-well, we specifically said everything has to be removed. There will be no on-site burial.

But I wonder if that language also is in the permanent pits.

COMMISSIONER BLOOM: The way the permanent pit was regulated previously on page 29 was: "The operator shall remove all liquids and BS&W," the sediment and water, "from the permanent pit prior to implementing a closure method."

COMMISSIONER BALCH: Okay. I thought in the multi-well we were specific about what was being removed, but I might be wrong.

CHAIRPERSON BAILEY: Well, this is where we talk about it.

COMMISSIONER BALCH: Okay. To me, there's two categories -- maybe three categories of materials. In my mind, the drilling -- temporary drilling pit waste and the solids and drying pads from the closed-loop system are going to be very

similar, with the rocks and mud with chlorides and other things in it.

The multi-well management fluid pit will have different material. Perhaps -- we have no idea what it's going to be in the completion fluids. And while those completion chemicals are traces, if you remove all the other water then you may have a high concentration of --

CHAIRPERSON BAILEY: They will be sludge. They will be dust and dirt and leaves and whatever else. I mean, there will be some kind of solid material.

COMMISSIONER BALCH: Yes, which is going to be noticeably different from drilling waste.

CHAIRPERSON BAILEY: Exactly.

COMMISSIONER BALCH: So I think -- and then -- now permanent pits, I remember talking about them yesterday. We said they were primarily for long-term storage, and prior to --

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: So very likely a permanent pit would be concentrated to the point where you would not be able to --

CHAIRPERSON BAILEY: There could be a sludge --

COMMISSIONER BALCH: -- determine --

CHAIRPERSON BAILEY: There would be a sludge component.

COMMISSIONER BALCH: So even with mixing, we wouldn't get to the standards of the ground table water.

CHAIRPERSON BAILEY: I don't see how you could.

COMMISSIONER BALCH: Okay. And since we had no changes recommended to us for permanent pits, the easiest thing to do is leave permanent pits alone.

CHAIRPERSON BAILEY: We won't touch them, except to determine what needs to be in their closure plans, if it's so vague.

We have closure methods for permanent pits that have been lined out, so we will need to look at that.

COMMISSIONER BALCH: That's true. The entire closure section -- actually, the entire closure section was scrapped and rewritten. So in that sense, they did address closure of permanent pits.

CHAIRPERSON BAILEY: And permanent pits is included in the list of paragraph A up above.

COMMISSIONER BALCH: Correct. But in practice, it's very unlikely you would be able to close on-site a permanent pit that has 30 years' worth of chloride fluids running through it, evaporating, et cetera.

CHAIRPERSON BAILEY: And in practice, I don't think you could realistically assume that there would be any in place therein.

COMMISSIONER BALCH: And then with a multi-well fluid management, you know, I swear there is language in there that everything is going to be eliminated.

CHAIRPERSON BAILEY: Yes, there was, for removal of all fluids.

COMMISSIONER BALCH: At which point there would be nothing left. Well, maybe the sludge in the --

CHAIRPERSON BAILEY: Well, there's sludge.

COMMISSIONER BLOOM: Maybe that's why temporary pits are addressed in A and not in B.

CHAIRPERSON BAILEY: So B does not discuss multiple fluid management pits or permanent pits, according to what has been presented to us.

COMMISSIONER BLOOM: Right.

COMMISSIONER BALCH: Okay. So B really

addresses drilling waste.

CHAIRPERSON BAILEY: It really addresses temporary pits, drying pads, and tanks associated with closed-loop systems and --

COMMISSIONER BALCH: I think tanks may be not the way to say it. It's waste associated with a tank, is the way it reads, and you would be disposing of the tank.

CHAIRPERSON BAILEY: So what language would you suggest?

COMMISSIONER BALCH: I would say something along the lines of, this section applies to temporary pits --

CHAIRPERSON BAILEY: And waste associated.

COMMISSIONER BALCH: -- and waste associated with closed-loop systems.

CHAIRPERSON BAILEY: In which the wastes are either intended for in-place disposal in the existing pit or for disposal at a nearby -- so this is an instance where we need to be very careful not to --

COMMISSIONER BALCH: On-site/off-site.

CHAIRPERSON BAILEY: Right.

COMMISSIONER BLOOM: And "nearby" comes in as not defined.

CHAIRPERSON BAILEY: Okay. I brought up our 360 discussion several times. I will check there and see if they have any thoughts there for us.

COMMISSIONER BALCH: Could we -- and the second sentence would be -- just change that to say: "This section applies to waste from temporary pits and closed-loop systems."

And we already specified that liquids are not disposed on-site, elsewhere.

CHAIRPERSON BAILEY: Correct.

COMMISSIONER BALCH: So I don't think we have to be specific about them with solids, just so we get solids. I think somewhere we have a definition that has solids.

MR. SMITH: You have a grammar issue there in B.

COMMISSIONER BALCH: Well, we've got an extra --

MR. SMITH: Well, it says: "This section applies to a -- to waste from A and B, C and D."

COMMISSIONER BALCH: Well, "drying pads and tanks" needs to be deleted, actually, along with "associated with closed-loop systems," because we've already -- okay. There we go. Delete that part.

Something along that line.

Basically, we have specified drilling waste without saying "drilling waste," realizing it can come from two sources, a mud pit or from a closed-loop system.

What are drying pads made out of?

CHAIRPERSON BAILEY: Plastic.

MR. SMITH: I don't know how it applies here. But I have found in other regulations it is difficult to predicate the applicability of the regulations on intent. Whose intent? Intent when? How do you know?

I mean, you might want to use some other term there so you take it out of someone's private thoughts or possible private thoughts.

COMMISSIONER BLOOM: Which waste will go to or be destined for?

COMMISSIONER BALCH: Well, I think we are talking about drilling waste. So it's going to be mud, chunks of rock.

CHAIRPERSON BAILEY: Completion fluids, bacteria.

COMMISSIONER BALCH: Completion fluids, bacteria.

MR. SMITH: Are they always required for

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in-place disposal in the existing temporary pit or for disposal at a nearby temporary pit? I mean...

COMMISSIONER BALCH: Well, I think the way we have been discussing this, we are talking about on-site disclosure of -- closure of waste for a variety of pits. We have a family of four scenarios, if you include the below-grade tanks.

I think that for this discussion we concluded -- although maybe we haven't. Maybe just me -- that we're talking about for on-site closure, you are just talking about drilling waste. And that can come from one of two sources: Temporary mud pit or from a closed-loop system.

The material is going to be substantially the same, they are just coming from two different places.

MR. SMITH: Well, what I am getting at is: Are you able to change that sentence after the comma in the third line up, in which the wastes are required either to be placed, and then go on? Or is it not a matter of requirement?

I'm just trying to find something other than "intent."

COMMISSIONER BALCH: No, they are not required to dispose on site. This is an option for

on-site disposal.

And then there will be some other limiting factors on that.

For example, after a mixing, you would have to meet the requirements of Table I.

COMMISSIONER BLOOM: Could we change it to "in which wastes are to be disposed of in" -- just "in a temporary pit for disposal," on that?

MR. SMITH: Well, or "may."

"This section applies to waste from temporary pits and closed-loop systems."

COMMISSIONER BALCH: "Destined for burial on" -- "in place."

MR. SMITH: "Where such waste may be," and then go on, or "when such waste may be."

COMMISSIONER BALCH: Go up to the very beginning of B, for closure. Try that again.

MR. SMITH: What I was thinking is where you have: "This section applies to waste" -- let's see. "This section applies to waste from temporary pits and closed-loop systems when such waste may be disposed of in place."

COMMISSIONER BALCH: "Or into nearby division-approved pits or trenches."

MR. SMITH: Well, "in-place." I would

probably put -- keep "in the existing temporary pit" after -- then delete "in which the wastes are either intended for in-place disposal."

COMMISSIONER BALCH: So those next three to four words there, "for in-place disposal," delete those.

MR. SMITH: There you go. Take those out. "When such waste may be disposed of in place in the existing temporary pit or disposed off at..."

And then -- well, I guess you don't need two "ats" there, do you? You need "disposed of."

Is that what you want?

COMMISSIONER BALCH: And now we don't need the first sentence, right? Or do we still need the first sentence?

MR. SMITH: Well, I think that's a title.

COMMISSIONER BALCH: Okay.

CHAIRPERSON BAILEY: The problem -- we need to focus on "nearby temporary pit or burial trench that is not a permitted commercial facility."

COMMISSIONER BALCH: This isn't a language issue. This is something we need to debate.

CHAIRPERSON BAILEY: That what?

COMMISSIONER BALCH: We need to debate on your lines.

CHAIRPERSON BAILEY: All right. Our 360 suggests language that we could adapt in this instance, where we could say "nearby -- a nearby temporary pit must be within the boundaries of the lease and/or development plan wherein exploration and production waste continues to be under the control and management of the operator/producer."

COMMISSIONER BALCH: We put language like that somewhere else.

CHAIRPERSON BAILEY: No, we talked about it.

COMMISSIONER BALCH: Okay. When we talked about it.

CHAIRPERSON BAILEY: Yes. Well, we were talking about on-site/off-site.

COMMISSIONER BALCH: Yes.

CHAIRPERSON BAILEY: But this means that the operator/producer still has the control over the waste, and it is not a commercial facility.

So we could have that read -- after "NMAC," at the end of the paragraph, "a nearby temporary pit or burial trench that receives waste from another temporary pit must be within the boundaries of the lease and/or development plan wherein exploration and production waste continues

to be under the control and management of the operator/producer."

COMMISSIONER BLOOM: Now I need to ask, speaking from allowing off-site burial and how we weigh that against some of the risks that we have heard. And our 360 points out that some of it -- it creates regulation issues. I think it cites some comments from OCD there, one more thing to track. Essentially, we get an orphan trench. You've got an orphan trench.

CHAIRPERSON BAILEY: It's not orphaned if it's still in control of the operator/producer.

COMMISSIONER BLOOM: What's to be gained from having it not on the well pad or proximate to it?

COMMISSIONER BALCH: Proximate is the wellhead.

CHAIRPERSON BAILEY: If there is a depth to groundwater issue -- and up in the northwest particularly, there are very few, maybe even only just a couple of permitted facilities that are authorized to take drilling waste.

There is a real dearth of division-approved facilities that can -- where it can be disposed of. This allows an operator to be

able to dispose of it at a nearby site within his control without having to either truck it or pay for exorbitant fees.

COMMISSIONER BLOOM: The -- excuse me. A fee owner could prohibit, through SOPA, such disposal of waste, correct?

CHAIRPERSON BAILEY: On the site? Yes.

COMMISSIONER BALCH: Yes.

COMMISSIONER BLOOM: The state land office I'm not so sure, because it might interfere with the lease agreement, which is set by the legislature. SOPA doesn't apply to the state land office, the Surface Owner Protection Act.

COMMISSIONER BALCH: Is it possible for them -- for you, in the state land office, to -- as a result of this rule -- to write some clarifying language or have some clarifying policy?

CHAIRPERSON BAILEY: You can't change the lease itself, but they can have their own rules and regulations concerning waste disposal on state lands.

COMMISSIONER BALCH: Well, I don't want to make life hard for you. But do you have a way to adjust for it?

COMMISSIONER BLOOM: I'm not sure that we

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can do so. I'm not sure we can do so without going to the legislature.

CHAIRPERSON BAILEY: Not for changing the lease. But for enacting regs you've got Rule 100. That does not come through the legislature. That comes just through the commissioners' control.

COMMISSIONER BLOOM: I will check, yeah.

COMMISSIONER BALCH: I see a number of --

COMMISSIONER BLOOM: I've kicked this around a little bit, but I'm not certain we can do that.

COMMISSIONER BALCH: I think the advantage that you mentioned is -- is his.

But you know, one of the concerns brought up by Dr. Neeper was if you got down to a small enough spacing, you could end up having a drilling pit waste every X number of feet.

I did some calculations, that you would have to get down below 20 acres or so spacing before you start to have a problem with a well that was in the middle of being close to them. But if you can centralize some of this waste nearby to its source, then I think you've gained an advantage over having two separate pits or four separate pits.

And if you can site that such that, you

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know, maybe you're -- maybe your lease does have a river on one side of it. If you can site your waste disposal as far from the river as you can, then everybody is more protected and the surface owner might be happier and you would have less risk going forward, as a company, of an impact.

So it seems like an advantage to me, to be able to -- as long as you had control over it.

COMMISSIONER BLOOM: If somebody had a full section and 320 spacings and they elected to have separate pits, you wouldn't have to bury them in two spots. You could transport the one to the other location.

COMMISSIONER BALCH: Bury it in one.

COMMISSIONER BLOOM: I think it --

COMMISSIONER BALCH: It seems like an advantage to have less pits overall.

And the volumes of waste we're talking about are not incredibly large. If you recall the pictures from Dr. Buchanan's testimony at the Conoco site, it was a thin layer that was maybe -- well, it was hard to calculate area, but it was a thin, somewhat laterally extensive layer. So basically, all you are doing is maybe adding a little bit of thickness to that. And as long as your leachate

will not concentrate to the level that you are worried about, then I think it's an advantage.

CHAIRPERSON BAILEY: It was still not transporting liquids.

COMMISSIONER BALCH: We are talking about solid waste.

COMMISSIONER BLOOM: Liquids are drawn off and disposed of.

COMMISSIONER BALCH: Yes.

CHAIRPERSON BAILEY: Particularly for closure of the receiving pit. You're not going to close it with fluids.

COMMISSIONER BALCH: And then you -- when you close a site that doesn't have waste under it there's a different reclamation standard. Is that correct?

CHAIRPERSON BAILEY: Run that by me again?

COMMISSIONER BALCH: If you close a site, a pit that has waste underneath of it, we are proposing -- or Dr. Buchanan proposes you have 4 feet of cover, soil, vegetation at 70 percent, so on and so forth.

What's the standard if you just close your pad, or you close a pit that doesn't have waste in it?

CHAIRPERSON BAILEY: Then that's the 1 foot.

COMMISSIONER BALCH: The same standard? That is the 1 foot. So you don't have to do as expensive a reclamation in multiple locations if you can concentrate it in one place.

And then that also reduces the risk of, as you said, if you end up with a situation where you could have pooling, or a playa lake forming on top of your disposed waste and you have a hydraulic head on it, they give you more flexibility in siting the location of that waste to avoid that. I mean, it allows you to do more appropriate reclamation.

I think for me personally, anything that encourages best practices in anything is going to be beneficial to everybody.

COMMISSIONER BLOOM: Well, I will continue to think on that, and we can move forward.

CHAIRPERSON BAILEY: Move forward?

COMMISSIONER BLOOM: Yes, sure.

CHAIRPERSON BAILEY: Okay.

COMMISSIONER BLOOM: Is that a little D on the top line there?

COMMISSIONER BALCH: No, that's --

COMMISSIONER BLOOM: Or is it capital B?

It's a capital B.

CHAIRPERSON BAILEY: Okay. So moving forward to B (1): "Operator shall not commence closure of a temporary pit or drying pad and tank without first obtaining approval of the closure plan submitted with the permit application."

I think that's a given, don't you think?

COMMISSIONER BALCH: Except for I think the language "drying pad and tank" is bizarre.

CHAIRPERSON BAILEY: Of a pit associated with --

COMMISSIONER BALCH: Well, we use -- in the definition of B, at the beginning of that where we were talking about: "This section applies to waste for temporary pits and closed-loop systems," can we carry that definition down somehow without -- is there a way we can use the language that's already up there without having to repeat it, or do we want to be consistent in how we discuss those wastes?

CHAIRPERSON BAILEY: Well, we can. Let's go ahead and: "The operator shall not commence closure of a temporary pit or closed-loop system."

Are we closing the closed-loop system?

COMMISSIONER BALCH: Now, we are not doing

anything with the closed-loop system.

CHAIRPERSON BAILEY: No, we are talking about the drying pad associated and the tank associated.

COMMISSIONER BALCH: Yeah. There's no closure standard for that.

What are we trying to do with (1)?

CHAIRPERSON BAILEY: Make sure that there is a plan that is submitted with the permit application that gets approved by the OCD.

COMMISSIONER BALCH: But for (1) -- but for B, we're talking about the disposal on site.

CHAIRPERSON BAILEY: Their plan for disposal on site has to be a part of the permit application that gets approved by the OCD.

COMMISSIONER BALCH: But in (1), are we talking about closure or are we talking about the disposal, the burial?

CHAIRPERSON BAILEY: It says you are not going to commence closure.

COMMISSIONER BALCH: But -- okay. Maybe this will clear it up.

"Notwithstanding the following, the operator shall not commence closure without first obtaining approval of the closure plan submitted

with the permit application."

I think that all the other language in between the first "closure" and the "closed-loop system" on the second line is extraneous. It's already described what we are talking about in B.

And we're really talking about they can't do the closure, which in this particular instance of B includes on-site or nearby disposal of the waste from temporary pits or closed-loop systems.

(1) modifies B, so I don't know if we really need to explicitly state that again, especially since it's --

CHAIRPERSON BAILEY: How many times do we want to repeat it?

COMMISSIONER BALCH: Well, and it's unclear language because, again, are we disposing of the tank on site? I don't think so.

COMMISSIONER BLOOM: Mr. Balch, you raise a good point. And I think the existing language in the existing Rule 17, which sometimes it gives time limits for how many days' notice an operator will give OCD. I believe it was -- 72 hours was some things and a week or a month for a permanent pit, for example. I don't know where that was.

COMMISSIONER BALCH: This is that you're

planning on closing it subject to your closure plan?

COMMISSIONER BLOOM: Correct. Maybe that's what this was trying to get at.

COMMISSIONER BALCH: Well, no, I understand the intent. You don't want them to do the closure until they notify OCD.

But I think if you remove the highlighted material in (1) you still have the same effect, because (1) modifying --

COMMISSIONER BLOOM: B.

COMMISSIONER BALCH: -- B. Okay.

COMMISSIONER BLOOM: Or B modifies (1), or sets the context for it.

COMMISSIONER BALCH: Right, sets the context for it.

COMMISSIONER BLOOM: Yeah. I think we can delete that language, yes.

CHAIRPERSON BAILEY: Yes.

MR. SMITH: Do you need the "notwithstanding the following"? Is there anything in the following that would seem to indicate anything contrary to the remainder of number (1)?

COMMISSIONER BALCH: Well, I think referring to (2), (3), (4), but maybe those should actually really be (a), (b), and (c), if they are

going to use "notwithstanding the following."

MR. SMITH: Well, but if you are going to have --

CHAIRPERSON BAILEY: I have looked at the rest of the page, and I don't see any reason to have it.

COMMISSIONER BLOOM: I would agree with you.

MR. SMITH: Unless (2), (3), and (4) in some way imply that closure could be begun before the plan is approved.

COMMISSIONER BALCH: I think -- I don't know about the intent, but it seems like what we want to have happen is before they go to close they're going to notify OCD, period.

MR. SMITH: Well, and they do it with an approved plan.

COMMISSIONER BALCH: Well, they would have an approved plan when they file the original C-144. That's part of the -- you have to have an approved plan.

CHAIRPERSON BAILEY: Let's go ahead and delete "Notwithstanding the following."

COMMISSIONER BLOOM: Now we are really saying: "The operator shall first obtain approval."

COMMISSIONER BALCH: I think this is pretty clear. This is basically saying don't start your plan until you tell OCD you're going to do so.

COMMISSIONER BLOOM: Okay.

CHAIRPERSON BAILEY: And then number (2): "The operator shall demonstrate and comply with the siting criteria and the closure requirements."

COMMISSIONER BLOOM: Is that still subsection C up in Section 10?

CHAIRPERSON BAILEY: We are going to have marked -- go through every citation to make sure it's accurate.

COMMISSIONER BALCH: What is subsection C?

MR. SMITH: I'm so pleased.

CHAIRPERSON BAILEY: We've been manipulating so many paragraphs that...

COMMISSIONER BLOOM: On-site closure.

And then the last part seems strange, in that it's -- I mean...

CHAIRPERSON BAILEY: We're talking about the same subsection we are talking about.

COMMISSIONER BLOOM: Is that necessary?

COMMISSIONER BALCH: I think you just need to comply with the siting criteria.

COMMISSIONER BLOOM: In Section C?

CHAIRPERSON BAILEY: Yes, because the closure plan is part of the permit application process, where it gets approved or not. So we could eliminate that whole phrase.

COMMISSIONER BLOOM: Yeah.

CHAIRPERSON BAILEY: Then going to paragraph (3), "prior to closure," here's where you were thinking, maybe.

COMMISSIONER BLOOM: Reasonably achievable.

COMMISSIONER BALCH: I think the reason they added that language is because "all" is pretty definitively -- I mean, if you were to take materials -- if you withdrew all the liquids from it, you put it in the kiln for a couple of weeks at 500 degrees and then you would probably be 99.9999 percent, you still wouldn't be in compliance of "all."

MR. SMITH: What -- would those liquids be free, though? I mean, is "free" the modification that does away with your concern about the kiln?

COMMISSIONER BALCH: I think the way it reads is fine. Whether the language "reasonably achieved" should remain there, I'm not sure.

CHAIRPERSON BAILEY: If there is a small

little puddle of free liquid in the middle of the pit sitting on top of high vis mud, you're not going to be able to reasonably get --

COMMISSIONER BALCH: You know, there was testimony kind of around this issue -- not at this directly, but just -- if you have a regulation that allows good practices, I can think of your puddle in the middle.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: You're going to have some guy wearing boots walking out there with a hose to get that last little bit of liquid, and then you are compro- -- you know, you are risking compromising your liner for not a very large gain.

And something like that would be an example of why "reasonably achievable" might be a good criteria.

CHAIRPERSON BAILEY: My only problem with this paragraph is that it should have a "D" with "closed-loop system" on the line below.

Commissioners, are you okay with paragraph (3) the way it's written?

COMMISSIONER BLOOM: I was checking to see if OCD had any comments on that, but I don't believe I see any.

COMMISSIONER BALCH: So in this case I think the tank associated with a closed-loop system is fine, because you are going to drain off the liquids, and there will be sludge in the bottom of the tank that they will just shovel out probably onto the pad, so that's fine.

COMMISSIONER BLOOM: Yes, that's fine.

CHAIRPERSON BAILEY: Okay. On to paragraph (4): "Prior to closure of the existing pit or transferring the waste contents from a drying pad and tank associated with a closed-loop system into a temporary pit or burial trench," I would like to put the words "for closure" after "trench," just so we know that it's being put over there for closure rather than just whatever other purpose that could be.

COMMISSIONER BALCH: You want "for closure" at the beginning instead of "prior to"?

CHAIRPERSON BAILEY: It could be unnecessary words. "The operator shall stabilize or solidify to a bearing capacity sufficient to support a mix in contents with a ratio no greater than 3-to-1, and then pass the paint filter test, EPA 9095 or subsequent -- relevant subsequent publication."

COMMISSIONER BALCH: And again, I think anything associated with it is good for this definition.

CHAIRPERSON BAILEY: So are we okay with paragraph (4)?

MR. SMITH: Just for the record, did you-all have testimony on the 3-to-1 mix?

COMMISSIONER BALCH: That's a carryover, isn't it, from the original rule?

CHAIRPERSON BAILEY: It is a carryover from the original.

COMMISSIONER BALCH: There was no testimony, and we are leaving it alone.

CHAIRPERSON BAILEY: Yes. Trenches should have an apostrophe instead of the E, on the fourth line down where it talks about "trench's final cover."

Yes. Subtract the E and put in an apostrophe.

Okay.

MR. SMITH: Just for clarity later on, why don't you do a search for "publication" and make sure that it's all either relevant subsequent or subsequent relevant and just make them consistent.

Is that okay?

CHAIRPERSON BAILEY: Yes, please.

And then we can go to paragraph (5), where groundwater is 100 feet or less from the base of the disposal pit or trench. We are talking closure. We are talking about sampling.

COMMISSIONER BALCH: Now, here, I think the five-point test is appropriate, because you are sampling mixed material.

CHAIRPERSON BAILEY: Because we will have mixed it and stabilized it to the -- okay.

This doesn't talk about the paint filter liquids test, because that was referred to in the paragraph above.

That should be Table I, not Table II, in the last line.

Just as a side note, we still need to determine what those concentration limits are in Table I. We just decided to use that table, but not particularly accepting what those limits are as proposed.

COMMISSIONER BALCH: We haven't discussed it.

CHAIRPERSON BAILEY: That's right.

COMMISSIONER BLOOM: Madam Chairman, OCD, on page 10 of its closing -- or findings of fact

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does have some slightly different language for (4) and (5) to split up...

CHAIRPERSON BAILEY: Are you talking about page 8?

COMMISSIONER BLOOM: Page 10, I'm sorry.

CHAIRPERSON BAILEY: Page what?

COMMISSIONER BLOOM: Page 10, number (4) at the top of page 10.

CHAIRPERSON BAILEY: So it adds the sentence: "When transferring the waste contents from a drying pad and tank associated with the closed-loop system into a temporary pit or burial trench, the operator shall stabilize or solidify the waste contents to a capacity sufficient" -- so it repeats the language.

COMMISSIONER BLOOM: It breaks it up. Yeah, I think it still drives the same point, that the operator shall stabilize -- stabilize or solidify the contents to a bearing capacity, so that's okay.

The line below, there's no inclusion of groundwater is 100 feet or less from the base of the disposal pit or trench, so that's the recommendation there.

CHAIRPERSON BAILEY: To remove that?

COMMISSIONER BALCH: I don't think they are addressing this (5) in their findings.

COMMISSIONER BLOOM: I think they're just saying that after the solidification and stabilization has been determined, then you collect a five-point sample.

COMMISSIONER BALCH: Okay. What OCD did was they moved the qualification portion to table -- what we call now Table I.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: What the intent -- or not the intent. I think what they are trying to present here is that if the groundwater is greater than 100 feet you don't need to do a five-point composite test. So maybe that could be more clearly stated or perhaps debated, if we need to debate that.

CHAIRPERSON BAILEY: Well, (6) deals with depth to groundwater greater than 100 feet, so they broke it out.

COMMISSIONER BALCH: Okay. But if there is no qualifying statement in (5)...

COMMISSIONER BLOOM: Just because depth to groundwater might be greater than 100 feet doesn't tell us what the distance to the surface might be.

And if the --

COMMISSIONER BALCH: Well, there's a --

COMMISSIONER BLOOM: -- pit contents, even after mixing, were highly contaminated no action would be required.

COMMISSIONER BALCH: The green here is from IPANM.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: We are trying to correlate OCD's findings with these two numbers.

They're replacing (5) with a much shorter sentence where you always take a five-point composite test.

And then they have if you exceed or you do not exceed -- and then it just goes on. If you do exceed -- well, I guess you couldn't dispose on site.

CHAIRPERSON BAILEY: But there's also that phrase at the end of (5), "or a division-approved alternative concentration limit," which OCD does not have in their --

COMMISSIONER BALCH: You know, I mean, this maybe comes down to a place where a site-specific variance could be sought if the concentrations were high. For example, if you were

in an area where the groundwater was at 500 feet you may not be concerned about chlorides in the waste.

CHAIRPERSON BAILEY: But if groundwater is 100 feet, then I'm not particularly in favor of the division-approved alternative.

COMMISSIONER BALCH: Or 99 or 100 --

CHAIRPERSON BAILEY: Yeah.

COMMISSIONER BALCH: -- or 1, 101.

CHAIRPERSON BAILEY: Yeah. And it's -- it's trying to make a distinction there based on the depth to groundwater as to what the closure testing is all about. (5) requires testing, (6) does not.

COMMISSIONER BLOOM: Madam Chair, I'm looking at the OCD's proposed language in this binder as well, and there is completely different language suggested in there.

CHAIRPERSON BAILEY: The OCD language for paragraph number (4) in the binder I think is very clear.

COMMISSIONER BALCH: I think so, too. I like how they have broken it into two paragraphs.

CHAIRPERSON BAILEY: Commissioner Bloom, did you like the way that was presented also?

COMMISSIONER BLOOM: Right now we have "for closure of the existing..."

Yes, I think that's a little better written.

COMMISSIONER BALCH: Well, it will be (4). It's in the sidebar there.

MR. SMITH: While Theresa is putting that in, let me ask you: There are references here to a mixing ratio of greater than 3-to 1.

COMMISSIONER BALCH: Not greater than 3-to-1. Basically --

MR. SMITH: Well, it says: "The operator shall not mix the contents with the soil or other material at a mixing ratio of greater than 3-to-1.

Shouldn't that be less than 3-to-1? Greater than 3-to-1 would be 4-to-1, 5-to-1, and you don't -- that's okay, isn't it?

COMMISSIONER BALCH: Well, I guess I can't -- first of all, nobody asked us to change this, and it was in the part of the original pit rule hearing and deliberations, so I don't think we can change it anyway.

But the -- I believe the reason why they say "not greater than" is you could take pure salt and mix it with dirt, and you end up with half salt. Or you could -- equal -- if you used equal volumes.

But if you used 10 times as much dirt, you

have a 10 percent salt. The salt is still there, it's just distributed across a greater volume. So this is to eliminate -- the reason I think the "not greater than 3-to-1" is in there is not to impact the amount of salt necessarily -- chlorides or other contaminates in a particular volume, but to restrict the amount that could be leached out of that material to the limit set.

CHAIRPERSON BAILEY: Since the size of your bowl is the same, the volume of salt within that bowl is the same.

COMMISSIONER BALCH: No matter how big you make the bowl you still have the same amount of salt. But you can dilute it to the point where it will pass the paint filter test. But if you leached all of that salt out, you would exceed the concentration that we are intending to be as protective.

We haven't quite gotten to that table yet, but there's a good reason for the not greater than 3-to-1.

COMMISSIONER BLOOM: I have some questions as well, since we haven't heard any testimony on it.

COMMISSIONER BALCH: Well, nobody asked us to change it, so nobody really talked about it. But

the intent was to -- is to prevent you from basically just making it a larger volume that still contains the same amount of waste, which could then be leached. It's to limit the amount of waste in place that could be leached through.

MR. SMITH: Well, let me -- let me say this.

I think that if this said the opposite of what you wanted it to say, in the same vein as correcting mistakes that we talked about earlier, I think you would have the authority to change that. But if "if greater than" is correct from your perspective, you know certainly better than I.

COMMISSIONER BALCH: They don't want you to mix it more than 3-to-1. That's --

MR. SMITH: So can they mix it 2-to-1?

COMMISSIONER BALCH: You can mix it 2-to-1 or 1-to-1 or .5-to-1 or 2.5-to-1.

MR. SMITH: The first number being the non-waste?

COMMISSIONER BALCH: Right. 2.999-to-1.

MR. SMITH: Right? The first number is non-waste?

COMMISSIONER BALCH: Right.

MR. SMITH: And the number after the colon

is waste?

COMMISSIONER BALCH: No, it's the other way around.

CHAIRPERSON BAILEY: Yes. Because that's the way it's defined in the wording.

COMMISSIONER BALCH: Soil to contents, 3-to-1. So you could have 3 soil to 1 contents. And "contents," here, is referring to the waste material.

MR. SMITH: Tell me again which is 3.

COMMISSIONER BALCH: Okay. If we are in the top section labeled (4): "The operator shall not mix the contents with soil or other material at a mixing ratio of greater than 3-to-1 soil or other material to contents."

So if soil or other material to contents is what you are using for the 3-to-1, soil is 3, other contents is 1. Soil or other material is the 3. Contents is the 1.

MR. SMITH: Okay. So you are diluting the 1 with the 3.

COMMISSIONER BALCH: Uh-huh.

COMMISSIONER BLOOM: Yes.

MR. SMITH: All right. So if you dilute 2-to-1, aren't you going to be diluting it less?

COMMISSIONER BALCH: Yes. But if you -- if you know that the chloride concentration of your pit is low, say you are in the northwest and you're not using a KCL-based drilling mud and you know you are at 5,000-to-1, and the table says 2,500, if you can cut it in half you have already met the limit.

Also, you have not exceeded the leachate level, which has been modeled in their other testimony.

So basically, you're -- you're not having to provide that extra soil to dilute it 3-to-1. In fact, they may go out there and mix it 2-to-1, find out it doesn't match the test, and then add some more dirt and try again, as long as they don't exceed 3-to-1.

MR. SMITH: 3 soil to 1 waste?

COMMISSIONER BALCH: To 1 waste.

MR. SMITH: So 4 soil to 1 waste would be diluting it more, would it not?

COMMISSIONER BALCH: Yes.

MR. SMITH: And you want to prohibit that?

COMMISSIONER BALCH: Yes.

MR. SMITH: Okay. As long as it's what you want I am happy.

COMMISSIONER BALCH: Well, there was not

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testimony to the effect that 3-to-1 should be increased. And my understanding of the modeling is that it was designed around X amount of concentration. And it doesn't matter if the concentration is distributed across a 1-foot layer or a 2-foot layer. If you have the same amount of chlorides in there, in theory, it could all be leached through. So you are trying to limit the amount of chlorides you could have in the waste bed.

CHAIRPERSON BAILEY: If you would pass me my...

COMMISSIONER BLOOM: What he means is you might get to a situation, where you may have 10-to-1, and you would have so much more volume when you go back in the pit that you were trying to bury it in.

COMMISSIONER BALCH: Yes. I guess the bottom line is nobody asked us to change it, and it's reasonable -- or at least it passes the...

MR. SMITH: The bottom line for me is you have considered it and you are happy.

CHAIRPERSON BAILEY: Okay. So do we choose the upper paragraph (4) or the lower paragraph (4)?

I choose the lower paragraph (4) that the

OCD submitted. I believe it's clearer, and we would still have -- oh, you did go ahead and change our relevant subsequent publication.

COMMISSIONER BLOOM: I, too, prefer the second language of OCD.

COMMISSIONER BALCH: I believe that's more clear.

CHAIRPERSON BAILEY: Okay. So would you please delete the upper one?

Okay. All right.

Our numbering became different from what the draft -- maybe not.

Okay. (5). We were talking about breaking it out for depth to groundwater from the base of the pit or the trench, whether or not we want to do that, that IPANM suggested or not.

COMMISSIONER BLOOM: I would -- not to include IPANM's suggested language, because the pit contents will also be approximately to the surface and could have effects later.

COMMISSIONER BALCH: I think I'm comfortable with -- based on the testimony of Dr. Buchanan in particular -- with just about any concentration as long as it's properly reclaimed, as far as going towards the surface.

The greater protection that you want to have at higher concentrations of chloride is going to be for vertical transport to an aquifer.

Again, you could make the argument, I think -- I think it was actually made by some of the witnesses that the salt bulge should be protected at pretty much any concentration.

And I believe under my cross-examination of Dr. Buchanan under rebuttal, that he testified -- I asked him what would happen at 100 years, a thousand years, 10,000 years. And he said you would see the same salt bulge, you would just see higher concentrations.

I think the concern that I might have in this regard is -- is where we are asked to set a definitive limit for -- for burial.

And it comes down to a question. Do you -- if groundwater is sufficiently deep -- and whatever sufficiently is we may have to determine -- is it safe to bury any concentration of chloride?

That essentially would allow on-site burial in the southeast part of the state.

If you remove the qualifier and only depend upon Table I, then you have a similar situation to the way you have now, where you cannot

bury it on site in most of the southeast.

So it comes down to what we, as commissioners think, first of all, was proposed and what we think is reasonable.

COMMISSIONER BLOOM: So if it's 100 feet to groundwater and you're using the kind of chloride concentrations that you need in the southeast, you could have concentrations of 200,000 milligrams per --

COMMISSIONER BALCH: Well, that would be in the liquid. So I don't know what it would -- how it would translate, but it would definitely be higher than the standards of Table I, I would say.

I would posit that at some groundwater depth it doesn't matter what the concentration of chlorides is. It's not going to get transmitted to groundwater.

COMMISSIONER BLOOM: It's also horizontal, as well.

COMMISSIONER BALCH: Another thing that was brought up in testimony, that I guess we really haven't discussed a whole lot, is because we are mostly dealing with one-dimensional models. You are taking your transport and it's in a straight line and then it's in another straight line. That's how

the models were presented to us, because they are one-dimensional, even though we are looking at two dimensions, a one-dimensional model in one direction and then another one-dimensional model in another direction.

If you were to model -- model this in a three-dimensional sense you have a fixed amount of chloride. And as you distribute that plume in a 3D volume the concentration will tend to diminish at the front. It's not like -- not like all the concentration goes down and then moves out. Some of it stays in the grid blocks or cells of the model that you pass it through, which correspond to real volumes of dirt in the real world.

So all of these are not taken into account in any of that at all. In that respect pretty much every model that was presented to us is probably going to be pretty conservative.

I think it really boils down to whether you want to allow on-site burial of high chloride waste in at least places in the southeast where groundwater is deep.

CHAIRPERSON BAILEY: Or nonexistent.

COMMISSIONER BALCH: Or nonexistent.

CHAIRPERSON BAILEY: Because there are

places such as that.

COMMISSIONER BALCH: And I would say that that would probably be better than disallowing it.

My concern would be more for the cases where you are close to 100 feet of groundwater. Because if you do have the worst-case scenario, then you have a chance for -- the risk versus the -- the possibility of whatever risk you are trying to mitigate gets higher as the chlorides go higher.

CHAIRPERSON BAILEY: So the effort to keep the chlorides from being transported vertically is absolutely dependent on the reclamation at the surface?

COMMISSIONER BALCH: Well, it's -- I would say that for the vertical -- to the point where you are not trying to create a scenario where you have a playa lake flowing on top of your site, where you're going to have your infiltration rate greater than that which is presented by nature. That's where your risk comes in.

I think the evidence that was presented to us, all of the cross-sections that were dug for all the various pits -- you do see the salt bulge. There's a natural limit based on infiltration.

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: If your reclamation is such that it prevents infiltration from occurring at that site is greater than natural levels, then I think virtually any chloride level will be fine, because you're going to get down to the salt bulge.

As Dr. Buchanan said, your concentration will increase but your location of it will not.

CHAIRPERSON BAILEY: And Dr. Neeper's cartoons indicating the -- I hope everyone understands cartoon is not something funny. I mean, it's a drawing.

The drawings that he had of the salt bulge that were graphed indicated that at some depth below that salt bulge the concentrations of chlorides became equal to what the natural concentration was.

COMMISSIONER BALCH: Whatever was in the soil below that level.

CHAIRPERSON BAILEY: That's right. And so the whole point of allowing burial for these very high chloride concentrated drilling muds is to ensure that we maintain the salt bulge at a level that does not conflict with the depth to groundwater. It doesn't create problems.

COMMISSIONER BALCH: You want to make sure that your salt bulge is always well above

groundwater.

CHAIRPERSON BAILEY: Exactly.

COMMISSIONER BALCH: That's where the protection comes in.

CHAIRPERSON BAILEY: And the resumption of the concentration back to natural levels ensures that whatever we do --

COMMISSIONER BALCH: Again, we are talking about the case where you are dealing with solid waste in unsaturated flow conditions.

CHAIRPERSON BAILEY: That's right.

COMMISSIONER BALCH: But if you have an operational problem you could have greater vertical transport over a short period of time. However, we have already built in limitations on how long an unobserved operational leak would be occurring for, and there are remediation standards in the spill rule.

CHAIRPERSON BAILEY: So if groundwater is greater than 100 feet below the bottom of the pit --

COMMISSIONER BALCH: Or the bottom of the pit --

CHAIRPERSON BAILEY: -- then we can feel fairly certain that the salt bulge will occur within the top 20 or 30 feet, as I pointed out to

Dr. Neeper during the testimony.

Why don't we take a break until 10 after 4:00.

(A recess was taken from 4:00 p.m. to 4:11 p.m.)

CHAIRPERSON BAILEY: If we look at paragraph (5), it triggers the need for sampling and comparison with Table I.

If we look at paragraph (6), it says no sampling is required. That whatever that content is, if the depth to groundwater is greater than 100 feet, then we could still have on-site burial. To me, that's the big distinction of (5) and (6), and including the depth to groundwater as one of the qualifiers.

COMMISSIONER BALCH: Well, okay. We are looking at more than just chlorides. We are also looking at BTEX, benzene, and TPH. And I think it's fair that we want to limit composition of the material in those respects.

Well, not necessarily being concerned about chloride contamination of groundwater, if you remove any testing at all, then you could have any level of TPH, BTEX, and benzene if groundwater is greater than 100 feet.

So I think we may want to be careful to specify that we -- I'm thinking that that would be an unintentional, perhaps, impact of keeping the language the way it's written now.

CHAIRPERSON BAILEY: So that it doesn't matter what the depth to groundwater is. A sample will be taken if the analysis shows that the impact --

COMMISSIONER BALCH: -- BTEX, benzene, and TPH --

CHAIRPERSON BAILEY: -- that are in Table I are not exceeded --

COMMISSIONER BALCH: Excluding chloride.

CHAIRPERSON BAILEY: -- burial can go ahead and take place.

COMMISSIONER BALCH: That's what I would feel comfortable with.

CHAIRPERSON BAILEY: So your suggestion is to remove IPANM's language, if groundwater is 100 feet, to make no distinction.

COMMISSIONER BALCH: I think you have to test for the other constituents.

CHAIRPERSON BAILEY: Commissioner Bloom, do you agree that we should delete the suggested language that makes a distinction in the depth to

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groundwater so that any depth to groundwater is tested?

COMMISSIONER BLOOM: Yeah, I agree you could test it. And I'm concerned about chlorides as well, but at least this would include a test to look at the benzenes. So...

COMMISSIONER BALCH: Benzene, BTEX, and TPH.

CHAIRPERSON BAILEY: Okay. So we are agreeing to delete the language in green.

COMMISSIONER BALCH: The reason for that distinction is those are the components that would be more likely to impact the near surface, so we don't want to have increasingly large volumes of those.

CHAIRPERSON BAILEY: Let's make sure that any table reference in both (5) and (6) refer to Table I.

MR. SMITH: In (6), the reference to the constituent concentrations in Table I --

CHAIRPERSON BAILEY: Yes.

MR. SMITH: -- is that after stabilization with soil?

CHAIRPERSON BAILEY: Yes.

MR. SMITH: Or before, either way?

CHAIRPERSON BAILEY: After stabilization will qualify.

So, Theresa, on the third line of paragraph (6) we need to change it. At the very beginning of the third line of the paragraph (6) change it to Table I, please, and delete the green language.

COMMISSIONER BALCH: Without discussing the pros of Table I, I would suggest that we would have to add a third category. Right now it's 25 to 50, greater than 50.

I think we would agree to have 25 to 50, between 50 and 100, and then greater than 100. And then we wouldn't have to specify "excluding chloride" in the language. We could just have a dash for that chloride, or not have a chloride concentration greater than 100, but retaining concentrations with TPH, BTEX, and benzene.

So if you go to the bottom of Table I -- and I don't know if you can do this very easily. But we would need a third block. So you have a block of 25 to 50, you would have a block of greater than 50. If we could -- I think if you copy all of that.

Are you good at manipulating tables,

Theresa?

All right. You know what I'm trying to get at?

For the commission I would say that you would have 25 to 50, 50 to 100, and greater than 100. The greater than 100 would have TPH, BTEX, and benzene, but no chloride concentration.

CHAIRPERSON BAILEY: Because we do not have the evidence to show any changes in TPH, BTEX, or benzene.

COMMISSIONER BALCH: Well, the witnesses from NMOGA testified that those levels were safe for greater than 50 feet.

CHAIRPERSON BAILEY: Right.

COMMISSIONER BALCH: And we could not extrapolate that those numbers have changed, either. But we haven't gotten to the point of talking about those numbers yet. I just want to put in the third provision so that we can avoid having to put "excluding any" text into the rule. We have a table in there, so we'll use it.

CHAIRPERSON BAILEY: It certainly helps everybody understand what the requirements are.

COMMISSIONER BLOOM: Mr. Balch, you are saying you want it to be greater than 100?

COMMISSIONER BALCH: That one will be greater than 100. The middle one will be 50 to 100.

And this is what was testified to by NMOGA's witness as protective.

And as Commissioner Bailey pointed out, there is no way we could extrapolate those numbers to be greater -- greater than 100 feet, but we could use those same numbers because they have already testified to be protective at greater than 50, and 100 is greater than 50.

CHAIRPERSON BAILEY: And while we are modifying it, the left-hand column should say "below the bottom of the trench pit," so that there's never any question on enforcement.

COMMISSIONER BALCH: Technically, that second range should be 51 to 100, also.

CHAIRPERSON BAILEY: And we can fill in the rest of it when we have the discussion on what those numbers should be.

COMMISSIONER BALCH: That takes us back to 27.

CHAIRPERSON BAILEY: Back to page 27.

We have just completed paragraphs (5) and (6).

And now we are looking at paragraph (7):

"Upon achieving all applicable waste stabilization and transfer of the wastes, operator shall cover the pit trench with" -- and let's delete the word "compacted." Number (7), yes. We have agreed compacted. We have already agreed that that was an incorrect way of filling in a trench or a pit, according to Dr. Buchanan.

MR. SMITH: I would like to suggest that in (6), after the word "if," you set off in commas "after appropriate stabilization."

CHAIRPERSON BAILEY: Okay. Because it's clear in (7), but not specific in (6).

MR. SMITH: Right.

CHAIRPERSON BAILEY: So would you put that in, Theresa, and we'll look at it.

COMMISSIONER BLOOM: It seems like in (6), the first sentence is a bit of a fragment. Right now it just says "if the contents do not exceed any of the constituent concentrations."

COMMISSIONER BALCH: That's true. It would be similar to what is in (4) when you say they may be -- may be disposed of.

COMMISSIONER BLOOM: It should be, then, operator can either proceed to dispose of wastes in an existing --

MR. SMITH: You need a comma after "NMAC," I think, and then "the operator may."

COMMISSIONER BLOOM: I just think -- all right.

CHAIRPERSON BAILEY: You're happy with that?

COMMISSIONER BALCH: I think so.

CHAIRPERSON BAILEY: Okay. In paragraph (7) we also had a reference to non-waste-containing earthen materials. I would like to insert the word "uncontaminated" before "earthen" here.

COMMISSIONER BALCH: Non-waste-containing, uncontaminated.

Are we referring to the right paragraph now?

CHAIRPERSON BAILEY: No telling, with all of the renumbering that we've done.

COMMISSIONER BALCH: Do you want to make a note to yourself that that appropriate paragraph needs to be identified?

MR. SMITH: I will go through and check all cross-references and then call them to your attention when you get the order.

CHAIRPERSON BAILEY: Good. Thank you.

Are we happy with paragraph (7), then?

COMMISSIONER BALCH: Yes. In paragraph (2) was where we were talking about the definition standards.

COMMISSIONER BLOOM: Where is the appropriate place to discuss that the top liner is necessary?

COMMISSIONER BALCH: That would also be in the --

COMMISSIONER BLOOM: Is that up above in --

CHAIRPERSON BAILEY: In reclamation.

COMMISSIONER BALCH: -- in reclamation.

COMMISSIONER BLOOM: Okay.

CHAIRPERSON BAILEY: Looking at paragraph (8), we deleted the difference from groundwater -- depth to groundwater previously.

COMMISSIONER BLOOM: Now that becomes Table I, correct?

CHAIRPERSON BAILEY: Correct.

COMMISSIONER BALCH: I think we don't need Section (8) anymore. I think Sections (6) and (7), along with Table II, with that added row, takes care of this case.

CHAIRPERSON BAILEY: I agree with you, because that table is going to be the -- make that

distinction.

COMMISSIONER BLOOM: And so what happens if something exceeds it?

COMMISSIONER BALCH: If you exceed BTEX, benzene, or TPH in the new Table I -- and we haven't achieved it -- we haven't talked about those limits yet.

COMMISSIONER BLOOM: Right.

COMMISSIONER BALCH: But if you exceed them, then you can't bury on site.

COMMISSIONER BLOOM: Okay. But you are talking about getting rid of the entire paragraph (8) there?

COMMISSIONER BALCH: I think it's covered by the table and language in (6) and (7). Basically, you are going to go in there and you're going to do your paint filter test after you stabilize. You're going to check it -- your results versus two things.

First is what's your depth to groundwater. You look that part up on the table, and then you will check the concentrations. You will either meet them -- if you are under them, then you can proceed to closure.

And if not, we don't explicitly yet say

what you do. But I think the assumption would be you can't close on site.

Now, we can explicitly state that if you exceed -- if the contents -- if you want to replace (8) with something that reads like: "If the contents, after mixing with soil your non-waste material to the maximum ratio of 3-to-1 from a temporary pit or drying pad/tank" -- the language here is different than elsewhere -- "associated with a closed-loop system exceed any of the components" -- what's subsection A?

That's removal?

COMMISSIONER BLOOM: No, that's closure where wastes are destined for disposal at a division-approved off-site.

COMMISSIONER BALCH: Okay.

COMMISSIONER BLOOM: So I think you need (8) because it's going to say if you don't meet the requirements in Table I --

COMMISSIONER BALCH: We'll just need a change of language a little bit, I think.

COMMISSIONER BLOOM: -- if you don't meet the requirements in Table I, then you have to go up to A above and take it to a division-approved off-site facility.

COMMISSIONER BALCH: That would be correct.

COMMISSIONER BLOOM: Okay.

I'll tell you what we don't need is, I --

COMMISSIONER BALCH: I think it is important to explicitly state what happens in the worst case.

CHAIRPERSON BAILEY: But we can delete the language in green.

COMMISSIONER BALCH: Yes.

And we may want to -- some of the language here that we -- words that are different from other paragraphs. For example, relating to 3-to-1 ratio and temporary pit or drying pad and tank, this is the only place I see pad/tank. You may want to use that similar language that we have in (5) or (4).

CHAIRPERSON BAILEY: Well, we have that similar language in (5), where we have pad/tank.

COMMISSIONER BALCH: Okay. We may need to do that later. Okay. That's fine. I think it's fine for now. We can come back to it.

CHAIRPERSON BAILEY: We can go to paragraph (9): "If the operator has removed the wastes and the liner," operator shall test soils, the five-point composite sample analyzed for

constituents of Table I. If they are exceeded, the division may require additional delineation.

COMMISSIONER BALCH: That's interesting.

CHAIRPERSON BAILEY: Uh-huh.

COMMISSIONER BALCH: I would just say "additional action."

COMMISSIONER BLOOM: "Additional action" instead of "delineation"?

COMMISSIONER BALCH: Is this the division or is this the division district office?

CHAIRPERSON BAILEY: This is the division district office for closure of the temporary pit.

COMMISSIONER BALCH: Also, when we were talking about the five-point composites that were taken on the permanent pits and multi-well pits, tanks, and temporary pits, we had other language than what is in (a) here. It was to include discolored areas or other obvious contamination.

I don't know if it's appropriate to move some of that language here or if it's not necessary.

COMMISSIONER BLOOM: Well, if --

COMMISSIONER BALCH: Or would we just point at that language?

CHAIRPERSON BAILEY: So we're talking closure. We're talking about the pit contents that

had been mixed and stabilized. They are in the bottom of the pit or at the bottom of the trench.

COMMISSIONER BALCH: No, no. This is if you're --

COMMISSIONER BLOOM: This is about --

COMMISSIONER BALCH: This is after you've removed the waste and liner --

COMMISSIONER BLOOM: -- removed for off-site disposal.

COMMISSIONER BALCH: This might actually be a subsection to (8) rather than (9).

I think that (9) should be (8) (a), because if we are pointing this to the case of you didn't pass your tests, you are going to remove all of your material.

COMMISSIONER BLOOM: I see (9) as saying that if the waste in the liner had been taken for off-site disposal you still want to potentially test underneath the liner, and that's why that's there?

COMMISSIONER BALCH: Well, there's two cases where this could occur. I mean, there's more than two. But the two that come to mind is you wanted to take care of it there but you couldn't, so you have to remove all of the material.

The other is if you are cleaning the pit

up in that location and moving the material to another on-site location.

So maybe you're right. Maybe it does have to be its own separate entity.

COMMISSIONER BLOOM: Right. Before I forget, (9) (a), I think there should be the word "and" between "taken" and "analyzed."

COMMISSIONER BALCH: Yes.

Do you recall where we had the language for the five-point composite sample already for the permanent pits?

CHAIRPERSON BAILEY: That was in 13 A (3) (a).

COMMISSIONER BALCH: We changed the language there to be a little more complicated.

COMMISSIONER BLOOM: We could use that below, "with guidance"?

COMMISSIONER BALCH: Well, we modified how the fact when the composite sample was taken to be -- originally, you'd just go out there and sample five areas. I don't know if you measure, pace off, or whatever. But we wanted them to specifically target areas that had some evidence of contamination.

CHAIRPERSON BAILEY: I think it would be

appropriate to go ahead and copy that language and include it in (9) (a).

COMMISSIONER BALCH: Or replace (9) (a).

CHAIRPERSON BAILEY: Or to replace (9) (a).

COMMISSIONER BALCH: Okay. Delete "delineation" in (b).

COMMISSIONER BLOOM: (9) (b)?

COMMISSIONER BALCH: Yes.

COMMISSIONER BLOOM: Remove "delineation."

COMMISSIONER BALCH: And I think "complete" is redundant.

COMMISSIONER BLOOM: I would agree.

COMMISSIONER BALCH: It should read "before proceeding with closure."

CHAIRPERSON BAILEY: Where are you, (9) (a) or (b)?

COMMISSIONER BALCH: In (9) (b).

CHAIRPERSON BAILEY: If it's in (9) (a) it would be redundant as well.

COMMISSIONER BLOOM: Can you delete "complete" there?

MR. SMITH: You might want to say "if the results of such analysis exceed."

CHAIRPERSON BAILEY: In the first line of

(b).

COMMISSIONER BALCH: Okay.

That's taken, if you're not specifically pointing, to apply to the preceding statement.

CHAIRPERSON BAILEY: Okay. Let's get through (c) and then call it a day.

COMMISSIONER BLOOM: We might add that same language, "if the results of the analysis do not exceed." Should we make that "with non-waste-containing uncontaminated earthen material"?

CHAIRPERSON BAILEY: Yes.

COMMISSIONER BALCH: And the rest of Section 13 is a large amount of deletion which primarily had to do with replacing that data into a table and then the table itself.

CHAIRPERSON BAILEY: But there are portions of the deleted sections that we may choose not to delete.

COMMISSIONER BLOOM: Could we do those tomorrow?

MR. SMITH: Madam Chair, I would like to ask a question before we move on, or before you move on.

You're referencing parameters here in

Table I. Do you recall -- have you previously referenced those as parameters or limits? And in any case, I think you want to be consistent in that reference.

COMMISSIONER BALCH: Okay. I think we can -- we can look at that. We'll certainly go to this section again once we have discussed Table I.

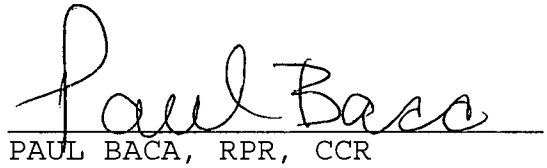
MR. SMITH: Okay. I just didn't want to forget it, and I will.

CHAIRPERSON BAILEY: All right. We will continue this case until Thursday morning, 9:00, here in Porter Hall. Thank you.

(Proceedings concluded.)

CERTIFICATE

I, Paul Baca, RPR, CCR in and for the State of New Mexico, do hereby certify that the above and foregoing contains a true and correct record, produced to the best of my ability via machine shorthand and computer-aided transcription, of the proceedings had in this matter.



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