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1	STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
2	OIL CONSERVATION DIVISION
3	ORIGINAL
4	APPLICATION OF THE NEW MEXICO OIL AND GAS
5	ASSOCIATION FOR AMENDMENT OF CERTAIN PROVISIONS OF TITLE 19, CHAPTER 15 OF THE NEW MEXICO
6 7	ADMINISTRATIVE CODE CONCERNING PITS, CLOSED-LOOP SYSTEMS, BELOW-GRADE TANKS AND SUMPS AND OTHER ALTERNATIVE METHODS RELATED TO THE FOREGOING MATTERS, STATE-WIDE.
8	MATIERS, STATE-WIDE.
9	CASE NOS. 14784 AND 14785
10	
11	TRANSCRIPT OF PROCEEDINGS
12	VOLUME 15 COMMISSION MEETING September 27, 2012
13	COMMISSION MEETING
14	Santa Fe, New Mexico $\mathcal{I} \bigcirc \mathcal{I}$
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18	THE COMMISSION: JAMI BAILEY, Chairperson
19	GREG BLOOM, Commissioner
20	DR. ROBERT BALCH, Commissioner MARK A. SMITH, Esq.
21	FLORENE DAVIDSON, Commission Clerk
22	KIM ROMERO
23	
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Page 3053 CHAIRPERSON BAILEY: It is 9:00 on 1 2 Thursday, September 27th, 2012. 3 This is a meeting of the Oil Conservation 4 Commission for the purpose of deliberating 5 Consolidated Cases 14784 and 14785. We are continuing deliberations that we began on Monday, 6 7 September 24th. All three commissioners are here, and so 8 we do have a guorum. 9 Commissioners, I was looking over the work 10 that we did yesterday, and I see that there's a 11 couple of areas that we need to clean up before we 12 go much farther. Is it your pleasure that we go 13 ahead and take care of those now before they get 14 lost in the... 15 16 COMMISSIONER BLOOM: Absolutely. 17 COMMISSIONER BALCH: Sure. CHAIRPERSON BAILEY: Okay. I'm looking 18 specifically at 19.15.17.11, having to do with 19 20 "Design and Construction Specifications." COMMISSIONER BLOOM: What part are we 21 22 looking at? 23 CHAIRPERSON BAILEY: Section D(4), having 24 to do with fencing. 25 COMMISSIONER BLOOM: What were your

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1 concerns in that?

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2 CHAIRPERSON BAILEY: At the very last phrase of D (4) it says livestock, wildlife, or 3 human safety as one of the conditions for variance. 4 But due to the work we did on variances 5 yesterday, that phrase should be consistent with 6 7 better protections to public health, et cetera. And the exact phrase is found in variance 3B. 8 COMMISSIONER BLOOM: The fresh water, 9 public health, and environment? 10 11 CHAIRPERSON BAILEY: Exactly. COMMISSIONER BALCH: Every time I said 12 13 protections to -- better protections, to have used 14 that other phrase. COMMISSIONER BLOOM: So it was fresh 15 water, public health, and the environment. 16 COMMISSIONER BALCH: Public health and the 17 environment. 18 We have been taking the environment to 19 include wildlife and livestock and public health to 20 21 include safety. 22 CHAIRPERSON BAILEY: So do we agree on 23 making that change? 24 COMMISSIONER BLOOM: Madam Chair, my only 25 concern would be that fencing does particularly

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Page 3055 relate to livestock and wildlife. And I think we 1 2 might want to consider leaving that in or naming it 3 in addition to. CHAIRPERSON BAILEY: We are creating a 4 5 contradiction -- an enforcement problem if we have the conditions for a variance in 3B naming public 6 7 health -- water, public health, and the environment, and a change in those conditions to the criteria for 8 9 number 4. I'm just trying not to create a problem for enforcement. 10 COMMISSIONER BALCH: If we go to 3 --11 there's another 3 right above that, the additional 12 13 requirements of fencing to protect the wildlife in 14 particular areas. So it's specifically pointing out wildlife for fences in that location. 15 And there is another place in here where 16 they're describing the barbed wire fences, and 17 those -- when we had our discussion more directly to 18 livestock. 19 20 COMMISSIONER BLOOM: Okay. I think this language would be sufficient, then, particularly as 21 to who will be cognizant of cattle and fencing. The 22 23 four-strand is in there, so I think we'll be fine. 24 CHAIRPERSON BAILEY: So are we agreed to 25 change that phrase?

Page 3056 COMMISSIONER BLOOM: Agreed. 1 2 COMMISSIONER BALCH: Agreed. 3 CHAIRPERSON BAILEY: Okay. The next one that I saw was... 4 5 Okay. Delete "livestock, wildlife, or human safety," and change it to, what, "fresh water, 6 7 public health, and the environment." 8 COMMISSIONER BALCH: A comma after "fresh 9 water." CHAIRPERSON BAILEY: Okay. And delete the 10 "S" on "protection." 11 Are we happy with that now? 12 13 COMMISSIONER BLOOM: I believe that will work. 14 15 CHAIRPERSON BAILEY: Okay. Thank you. 16 Then let's go to Section 19.15.17.14, 17 which is "Emergency Actions." 18 COMMISSIONER BLOOM: We are looking at about page 42, further down. 19 20 COMMISSIONER BALCH: Right there. CHAIRPERSON BAILEY: Okay. When we 21 reworked the definition for "emergency pit" and 22 23 reworked number D, paragraph D, we eliminated the need for paragraph E, because the very first 24 25 sentence of paragraph A says: "In an emergency, an

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Page 3057 1 operator may construct a pit without a permit to contain fluids," et cetera, where the first sentence 2 of E says: "This section does not authorize 3 construction or use of an emergency pit." So we 4 5 have created a contradiction right there. 6 In paragraph D we say that if an emergency 7 lasts more than 48 hours they need to seek approval for the continued use and shall remove all the 8 9 fluids within 48 hours after cessation of use, which means that E is redundant when it talks about 10 removal of fluids within 48 hours. 11 COMMISSIONER BLOOM: Madam Chair, what 12 13 about the existing language stating that such a pit 14 might be required by EPA? 15 COMMISSIONER BALCH: That's, I think, more 16 of a longer-term emergency. I think the EPA would be involved in something after 48 hours. 17 18 COMMISSIONER BLOOM: I was wondering if that was part of a possible EPA modification or 19 20 something to -- to a site that would be required, due to federal law, to have a pit being used in an 21 emergency on a site. 22 23 CHAIRPERSON BAILEY: That's a real stretch, to have EPA have any kind of authority for 24 having a pit on New Mexico lands. 25

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1	COMMISSIONER BLOOM: I would agree. Do we
2	know why that was in there originally or
3	CHAIRPERSON BAILEY: It may have just been
4	borrowed from other regulations.
5	COMMISSIONER BALCH: Okay. It seems to me
6	that there's an EPA regulation that the operator in
7	that emergency would have to deal with them directly
8	on that federal issue versus a state issue.
9	CHAIRPERSON BAILEY: Only when it comes to
10	underground injection control.
11	COMMISSIONER BALCH: UIC programs?
12	CHAIRPERSON BAILEY: UIC programs. That's
13	the only place.
14	COMMISSIONER BALCH: So if the operator is
15	having an emergency and has a UIC permit, they will
16	already be cognizant of EPA requirements.
17	COMMISSIONER BLOOM: And it's so I
18	think if it were to be related to spill prevention
19	it would not necessarily be termed an emergency pit;
20	it could be something else.
21	COMMISSIONER BALCH: Right. But if we go
22	back to 2 and 10, the rest of that is that an
23	emergency release will you want to minimize that
24	area affected by emergency release.
25	So our intent is really A through D, to

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 Page 3059 1 deal with --2 COMMISSIONER BLOOM: Agreed. I would be fine with moving --3 COMMISSIONER BALCH: -- deal with the 4 5 immediate problem. 6 CHAIRPERSON BAILEY: So we will delete 7 paragraph E in its entirety. The following section for "Exceptions and 8 9 Variances, " 19.15.17.15, "Exceptions and Variances." If you scroll down to B4a -- yes. 10 At the end of that first line of 4a, I 11 believe it says "U-N" and it needs to say U-N-D-E-R, 12 13 "under." 14 COMMISSIONER BALCH: Under. CHAIRPERSON BAILEY: Okay. And I seem to 15 have skipped one. 16 17 Scrolling back up to 19.15.17.12, "Operational Requirements." 18 19 COMMISSIONER BLOOM: Page 22, approximately, and 23. 20 CHAIRPERSON BAILEY: Okay. If we go down 21 22 to B (4), we have the "60 days from the date the operator releases the last drilling or workover rig 23 24 associated with the relevant application for permit to drill." 25

Page 3060 1 The APD is applicable to a well. The temporary pit is permitted separately, so it's not a 2 3 reference to the relevant application for permit to drill; it should be associated with the relevant pit 4 5 permit. 6 COMMISSIONER BALCH: Okay. 7 CHAIRPERSON BAILEY: And we will be 8 dealing with pit permits when we get to --9 COMMISSIONER BALCH: This could be construed to allowing you two years. I think you do 10 want to tie it to the pit permit. 11 CHAIRPERSON BAILEY: Yes. Because an APD 12 13 has to do with one well. 14 COMMISSIONER BLOOM: And the pit permit would specify the APDs. 15 16 COMMISSIONER BALCH: That are associated with it. 17 18 CHAIRPERSON BAILEY: Yes. 19 COMMISSIONER BLOOM: That are associated 20 with it. Okay. That is fine. Yeah. That's one 21 that -- I was thinking through some other things. This will be fine. Thank you. 22 23 CHAIRPERSON BAILEY: Okay. So, Kim, we 24 will change that phrase "application for permit to drill" to "the relevant pit permit." 25

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Page 3061 Okay. Those were the problems that I 1 discovered from last night. 2 We were in the process of looking at 3 exceptions under 19.15.17.15. 4 5 COMMISSIONER BALCH: Somewhere around page 44 or 45. 6 7 CHAIRPERSON BAILEY: And we had gone through the process for hearings and exceptions and 8 what all will be required. 9 And in C5, beginning with C4 and C5, in 10 that area, we talked about sending notice out for 11 12 comments and setting the exception for hearing. But what we did not include was the 13 authority of the director to administratively take 14 care of orders or exceptions that did not receive 15 16 comments or did not merit a hearing. If you scroll down, Kim, to the 17 crossed-out areas in through there. 18 19 COMMISSIONER BALCH: We are talking about 20 5? CHAIRPERSON BAILEY: Okay. Well, 4 has a 21 sentence at the very beginning, and I can read it 22 off: "The Santa Fe office may grant the exception 23 administratively if the Santa Fe office receives no 24 25 comments or requests for hearing within the time for

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Page 3062 commenting established in that reference." 1 2 COMMISSIONER BLOOM: That disappeared. COMMISSIONER BALCH: We may have moved 3 4 that up to -- we may have moved that up already, and we had been working on that when we stopped 5 yesterday. 6 7 COMMISSIONER BLOOM: It's interesting. Ι show that on what Theresa sent us last night 8 9 paragraph 4 is still lined out. 10 CHAIRPERSON BAILEY: Uh-huh. COMMISSIONER BLOOM: But here, it's gone. 11 12 COMMISSIONER BALCH: I think we moved it 13 up. Maybe the version wasn't quite saved. The language in 4 here, I think -- no, 5. 14 15 Let's see. All right. In 5 is where we were working on that 16 language last night when we stopped. 17 CHAIRPERSON BAILEY: And that's "if the 18 director determines a need for a hearing." 19 20 But it does not give the director the 21 authority for approval of the exception without a 22 hearing. 23 COMMISSIONER BALCH: Right. 24 CHAIRPERSON BAILEY: So we need to add a 25 sentence in there, which is the first part of the

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1 crossed-out 4 on my copy.

COMMISSIONER BLOOM: Okay. Do we need to 2 continue on with established -- this is paragraph 3 3 of subsection A, that link carry over? 4 CHAIRPERSON BAILEY: I can barely make 5 that out. We may not need to have that if we put 6 7 the period after the comment -- "for commenting." COMMISSIONER BLOOM: Okay. And then the 8 rest of the language in that? 9 10 CHAIRPERSON BAILEY: Is crossed out. COMMISSIONER BLOOM: We would leave 11 12 crossed out. Okay. 13 CHAIRPERSON BAILEY: Right. But we would 14 also add the first couple of lines of paragraph 5, where it says: "If the director does not determine 15 that a hearing is necessary due to technical merit, 16 significant public interest, or otherwise." 17 18 COMMISSIONER BALCH: Doesn't that go after 19 sentence one --20 CHAIRPERSON BAILEY: Uh-huh. 21 COMMISSIONER BALCH: -- and before the 22 sentence that begins: "If the director determines 23 that a request for hearing presents issues." 24 So we want to have a case where it does 25 not present issues, there's no comment.

Page 3064 Right. 1 COMMISSIONER BLOOM: CHAIRPERSON BAILEY: So we can have a --2 3 include another additional paragraph before we list 4 what the application needs to have. We can have a 5 new paragraph 7 that incorporates what to do if --6 COMMISSIONER BLOOM: Scroll down to 7. 7 CHAIRPERSON BAILEY: Yes. COMMISSIONER BLOOM: This would be a 8 new -- 7 will become 8 and then... 9 10 CHAIRPERSON BAILEY: Yes. 11 COMMISSIONER BLOOM: Okay. So... 12 CHAIRPERSON BAILEY: While she's doing that, commissioners, do you have any changes from 13 yesterday's work that we should think about? 14 COMMISSIONER BLOOM: Nothing that I can 15 think of, Madam Chair. 16 COMMISSIONER BALCH: I focused on the 17 material we need to cover today. 18 CHAIRPERSON BAILEY: Okay. Well, shall we 19 20 agree on where we go next, after she takes care of 21 this? 22 COMMISSIONER BALCH: After the remaining part of the crossed-out portions -- we'll probably 23 have to address those. There's a Section B, 24 "Alternative Methods," which is now no longer 25

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Page 3065 1 relevant. CHAIRPERSON BAILEY: I believe that we can 2 delete the entire Section B that has the -- is 3 4 crossed out. 5 COMMISSIONER BALCH: Because we've created 6 а 7 CHAIRPERSON BAILEY: A process already. COMMISSIONER BALCH: -- a process already. 8 9 COMMISSIONER BLOOM: Yes, that would be fine. 10 CHAIRPERSON BAILEY: Okay. And then, 11 Greq, if you could show her the first portion of the 12 13 crossed out 5. COMMISSIONER BLOOM: Is that still down 14 15 there? CHAIRPERSON BAILEY: Is it still there? 16 17 COMMISSIONER BALCH: It's pulled down. CHAIRPERSON BAILEY: Yes. 18 Okay. You'll want to copy the first complete 19 20 sentence and put it at the end of where you have 21 just typed. 22 Then we will need to clean that up a bit. 23 And we'll scratch -- we'll delete the words "the environmental bureau in the divisions." 24 25 And delete "in the divisions."

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Page 3066 COMMISSIONER BLOOM: And then we added 1 "the" in front of "Santa Fe." 2 3 CHAIRPERSON BAILEY: Do you-all agree with 4 that paragraph? COMMISSIONER BLOOM: Yes, I believe that 5 will work. 6 7 COMMISSIONER BALCH: Yes. 8 CHAIRPERSON BAILEY: Yes, both agree? 9 COMMISSIONER BLOOM: Agreed. I think we need to go down and perhaps delete the rest of what 10 11 remained. CHAIRPERSON BAILEY: Okay. If you will 12 13 scroll all the way down to the next -- yes, all of that crossed-out area needs to be deleted. 14 COMMISSIONER BALCH: All of 5 and all of 15 Section B. 16 17 CHAIRPERSON BAILEY: Yes. 18 COMMISSIONER BLOOM: Should we next look 19 at permit approvals, Section 16? 20 CHAIRPERSON BAILEY: All right. That's next in line here. 21 22 In the title, the suggestion is made to delete the words "or variance." 23 Since we've dealt with variance in the 24 25 previous section, shall we go ahead and delete the

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Page 3067 words in this title? 1 2 COMMISSIONER BALCH: This is -- yes. CHAIRPERSON BAILEY: Yes? 3 COMMISSIONER BLOOM: I think that would 4 5 make sense, yes. 6 CHAIRPERSON BAILEY: Okay. 7 Then in 16A, the very first line we can delete "and variances at the top." Yes, "and 8 9 variances." Now, the OCD has some suggested language. 10 Instead of A, B, and C -- do you have the OCD 11 12 suggested language? 13 COMMISSIONER BALCH: I do. COMMISSIONER BLOOM: 14 Yes. CHAIRPERSON BAILEY: What the language 15 does is agree that within 30 days of receiving any 16 kind of application the division shall make an 17 administrative completeness determination or provide 18 written notice of deficiencies to the applicant. 19 20 The application will be considered complete if 21 written notice is not provided by the division within the 30-day evaluation period. It's not 22 approving an application after 30 days, it's saying 23 that the application is complete, by default. 24 25 COMMISSIONER BLOOM: Yes, Madam Chair. Ι

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Page 3068 would -- I hear your concerns about the proposal 1 which would deem an application or permit approved 2 if no response had been received in 30 days. 3 And I just have one question about the OCD 4 language. I think it may be addressed in C. 5 If the division issues a denial, then it 6 7 will state why the petition was denied. Is that 8 correct? 9 CHAIRPERSON BAILEY: Yes. C says specifically that an application will be evaluated 10 11 under the Oil and Gas Act or the regulation and 12 notify the applicant. 13 COMMISSIONER BALCH: Of the cause for 14 denial or additional information? 15 CHAIRPÉRSON BAILEY: Right. 16 COMMISSIONER BLOOM: Now, it says --17 looking up at B above, the second sentence, it says if the division does not take action within 60 days 18 the application is deemed denied. 19 20 So in those cases the division would not 21 give a reason why they didn't take action or ... 22 COMMISSIONER BALCH: This really comes down to the arguments that we had in testimony. 23 24 What the proponents of the modifications 25 were seeking was a way to make sure that the

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1 timeline kept moving along.

2

COMMISSIONER BLOOM: Correct.

3 COMMISSIONER BALCH: The problem with that 4 is if you have -- in my opinion, the problem with 5 that is if you have applications automatically 6 approved, as in their suggested language, then you 7 have the risk of unvetted processes or procedures or 8 locations being used.

9 So even if there is a default on the side 10 of the division, the division doesn't do their job, 11 it's lost in a pile of paper or something, the OCD 12 version does at least put a time line on it where 60 13 days later they can go to hearing.

14 It's probably not -- you know, in a 15 perfect world, everybody's application is going to 16 be reviewed in a timely manner, no documents will 17 get lost, and whatnot.

18 I think we ought -- but in reality,19 sometimes things do get lost.

We also had testimony that if somebody was in the process of an application there might be some contact with the division district office periodically in that process, so that the risk of an application really being lost was small; it's more of whether or not the application was complete.

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Page 3070 CHAIRPERSON BAILEY: That's a large part 1 2 of it. COMMISSIONER BALCH: And I think that the 3 4 OCD language does at least address that. There's probably not a perfect solution to 5 this, but you really don't want to have unvetted 6 7 permits. COMMISSIONER BLOOM: I fully agree with 8 that. 9 CHAIRPERSON BAILEY: So, commissioners, do 10 you approve of the language as submitted by the OCD 11 to replace A, B, and C? 12 13 COMMISSIONER BLOOM: Yes, Madam Chair. We would be replacing A and B here with A, 14 B, and C, as proposed by the OCD, correct? 15 16 CHAIRPERSON BAILEY: That's correct. 17 We're not replacing C at this point. COMMISSIONER BALCH: Mr. Smith reminded me 18 that another part of this discussion and testimony 19 20 was, I believe by the industry side, that the permit 21 approval process needed some streamlining. 22 I'm not sure if we concluded that that would really have to be done on the division side 23 24 rather than through this rulemaking. 25 CHAIRPERSON BAILEY: I think most of the

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Page 3071 delays that have been encountered have been trying 1 to enforce the rule as it is currently written. 2 By working through this amendment I 3 believe that most, if not all, of the complaints 4 5 will probably be limited because of the changes that we are possibly making here. 6 COMMISSIONER BLOOM: Correct. Because if 7 we look at the existing language, there's no time 8 line in A. 9 10 ' CHAIRPERSON BAILEY: That's right. COMMISSIONER BALCH: And then Mr. Gantner, 11 in his direct testimony -- I don't have the 12 citation, but it was very early on -- directly in 13 response to questions said that the rule was very 14 15 hard to navigate. CHAIRPERSON BAILEY: 16 That's correct. So while she is doing that, we can look at 17 the current paragraph C with the proposed changes 18 and consider what we want to do with those, with C 19 and D. 20 Well, the OCD 21 COMMISSIONER BALCH: 22 language replaced A, B, C, and D. CHAIRPERSON BAILEY: No, it replaced A and 23 The "Conditions" are still under --24 Β. 25 COMMISSIONER BALCH: This would be D,

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Page 3072 1 then? CHAIRPERSON BAILEY: Yes. It would become 2 3 a D. 4 COMMISSIONER BALCH: Yes. Their A, B, and 5 C will be replacing A and B? CHAIRPERSON BAILEY: Yes. 6 7 COMMISSIONER BLOOM: Under C we might remove "safety." 8 9 COMMISSIONER BALCH: Fresh water, public health, and the environment. 10 CHAIRPERSON BAILEY: And we have the word 11 "reasonable" in there, too. 12 13 Is that in your copy? I have it in mine. That is a suggestion. 14 COMMISSIONER BLOOM: I do not see that, 15 16 no. 17 CHAIRPERSON BAILEY: It's not in your copy? 18 19 The line would read: "The division may 20 impose conditions or requirements that it determines are necessary and proper for the reasonable 21 protection." 22 23 I believe we had a lengthy discussion 24 about "reasonable." 25 COMMISSIONER BALCH: We did have a

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Page 3073 discussion on reasonable. And I think that the 1 bottom line was it was really up to the discretion 2 3 of the judge to determine what was reasonable in the 4 case. 5 CHAIRPERSON BAILEY: Exactly. 6 COMMISSIONER BALCH: In that case, the 7 judge would be a district officer or whoever was assigned review of that permit, and so that would 8 9 have to be discretionary. And everywhere else we have used the 10 language -- usually we use "equivalent" or "better." 11 12 But every other place we've used language that ended 13 with "protection of fresh water, public health, and the environment." 14 CHAIRPERSON BAILEY: Uh-huh. 15 16 COMMISSIONER BALCH: We've not applied "reasonable." 17 18 CHAIRPERSON BAILEY: So when she's done, we will agree to delete the word "reasonable" from 19 20 the opinion? 21 COMMISSIONER BLOOM: Yes. 22 CHAIRPERSON BAILEY: And do we want to 23 ensure that only Oil and Gas Act and only OCD 24 regulations are used in the evaluation? This 25 narrows it from possibly EPA regulations and water

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1 quality control regulations.

COMMISSIONER BALCH: It seems, to the 2 3 point that the Oil and Gas Act authorizes the division, that if -- and that there are already 4 natural constraints, that they have to deal with 5 statutes from other outside entities. So it's 6 7 redundant to have it specifically stated. I think it's more clear that people know 8 9 which regulations they're dealing with, and if there are other regulations which supersede that, that 10 11 would become apparent. 12 CHAIRPERSON BAILEY: They're not immune 13 from the authority of other regulations. 14 COMMISSIONER BALCH: Right. 15 CHAIRPERSON BAILEY: So by including this language we are simply giving guidance to the 16 compliance officers, that they look to the Oil and 17 Gas Act and to the oil and gas regulations. 18 So when she's ready for us we'll be able 19 to work with that. 20 21 COMMISSIONER BLOOM: We will add that to 22 "Conditions"? 23 CHAIRPERSON BAILEY: Yes. 24 COMMISSIONER BLOOM: Okay. Very good. 25 CHAIRPERSON BAILEY: In the following

Page 3075 paragraph, D, the suggestion has been made that the 1 division may deny in writing an application for a 2 3 permit. 4 COMMISSIONER BALCH: I think any denial, 5 which would be subsequently up for the appeal process, should be in writing. 6 7 CHAIRPERSON BAILEY: I never support verbal decisions. 8 9 COMMISSIONER BALCH: Handshake deals will get you in trouble. 10 11 CHAIRPERSON BAILEY: Yes, they will. 12 COMMISSIONER BALCH: That was either -that, apparently, might be more an OCD change, 13 because my version doesn't have that. 14 CHAIRPERSON BAILEY: Yes. This, 15 16 apparently, is an opinion. 17 COMMISSIONER BLOOM: This would be to add that the division will provide a written denial? 18 19 CHAIRPERSON BAILEY: Yes. 20 COMMISSIONER BLOOM: Okay. I agree with that. 21 22 Might I just say that the language towards the end is redundant. I don't know if it fits with 23 24 some of the other language used versus -- for 25 example, "applications do not sufficiently

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Page 3076 1 demonstrate that the operator can construct, operate, and close the proposed pit ... " 2 3 COMMISSIONER BALCH: That poses the 4 systems are not --5 COMMISSIONER BLOOM: Subject. 6 CHAIRPERSON BAILEY: -- permitted. 7 COMMISSIONER BALCH: Below-grade tanks 8 aren't permitted either. They're registered. 9 CHAIRPERSON BAILEY: That is right. 10 COMMISSIONER BALCH: So we are really 11 looking at pits of various types. 12 COMMISSIONER BLOOM: Then it says "fresh water, public health, safety, or the environment." 13 14 CHAIRPERSON BAILEY: So delete "safety," 15 then? 16 COMMISSIONER BLOOM: Safety. 17 COMMISSIONER BALCH: Do we want to change that "without" to be -- "without detriment" to be 18 19 "protective of," to be consistent with our other 20 language? 21 CHAIRPERSON BAILEY: So they "do not 22 sufficiently demonstrate that the operator can 23 construct, operate, and close the proposed pit, or 24 proposed alternative." COMMISSIONER BALCH: I think you actually 25

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Page 3077 might want to go to the full language of "equivalent 1 or better protection of." 2 3 COMMISSIONER BLOOM: Not "equal or 4 better"? 5 COMMISSIONER BALCH: Equivalent, or 6 whatever we have been using. Equivalent or greater, 7 something like that. 8 COMMISSIONER BLOOM: Okay. 9 CHAIRPERSON BAILEY: So "close the 10 proposed pit or proposed alternative without equal or better protection." 11 12 COMMISSIONER BALCH: What's the exact 13 language that we used. 14 CHAIRPERSON BAILEY: Equal or better? 15 COMMISSIONER BALCH: Okay. Equal or 16 better. 17 COMMISSIONER BLOOM: Okay. 18 Might we turn to discussion of Section A? 19 CHAIRPERSON BAILEY: Well, we still have 20 one more. 21 COMMISSIONER BLOOM: I'm sorry. E. 22 CHAIRPERSON BAILEY: So remove the word 23 "safety." 24 COMMISSIONER BLOOM: And also, it talks 25 about -- the third sentence -- "any modification

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Page 3078 that is equivalent to an exception of any paragraph 1 2 of the 19.15.17 NMAC should be subject to the notice and approval procedures prior to an exception." 3 4 CHAIRPERSON BAILEY: I'm sorry. I just 5 found your sentence. Any modification done is equivalent what? 6 7 COMMISSIONER BLOOM: "To an exception of any paragraph of 19.15.17 NMAC should be subject to 8 the notice and approval procedures required for an 9 exception." 10 I just want to make sure that's fine as it 11 stands. 12 13 COMMISSIONER BALCH: Actually, you may 14 want to say for --15 CHAIRPERSON BAILEY: Because we have noticed --16 COMMISSIONER BALCH: We have noticed for 17 variances as well. 18 CHAIRPERSON BAILEY: We don't have notice 19 requirements for variance. 20 COMMISSIONER BLOOM: Do we even need that 21 22 sentence in there? Because if it's an exception, it's going to be dealt with as an exception. 23 Ιf it's a variance, it would be a variance. 24 25 CHAIRPERSON BAILEY: I think this sentence

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Page 3079 does create ambiguity, by having that sentence. 1 We 2 could just delete that entire sentence. 3 COMMISSIONER BLOOM: The following 4 sentence says: "The division may revoke, suspend, or impose additional operating conditions or 5 limitations on a permit at any time, after notice 6 7 and opportunity for a hearing." It doesn't give a time span or, really, 8 9 length to... 10 COMMISSIONER BALCH: It does sort of seem to be a catchall that, basically, would allow them 11 to modify anything after the fact. 12 CHAIRPERSON BAILEY: If the division 13 14 determines that there has been a material breach of statutes or rules. 15 16 COMMISSIONER BALCH: Okay. And that it's 17 necessary for protection of fresh water, public 18 health, or the environment. COMMISSIONER BLOOM: Well, I think it goes 19 on, then, I'm sorry, to talk about that -- that 20 process. 21 22 CHAIRPERSON BAILEY: This gives the cease operations authority. 23 24 COMMISSIONER BALCH: This is necessary in 25 case something was done wrong on either side.

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Page 3080 CHAIRPERSON BAILEY: 1 Yes. COMMISSIONER BALCH: I don't know if the 2 3 last part, an emergency... 4 COMMISSIONER BLOOM: The --COMMISSIONER BALCH: We would probably 5 have to change the language there for public health. 6 7 COMMISSIONER BLOOM: It says "the operator shall have 10 days after receipt of notification to 8 9 request a hearing." It doesn't say what amount of time the OCD 10 has to set a hearing. 11 12 COMMISSIONER BALCH: That's set up by the rule we were talking about yesterday having to do 13 with hearings. 14 15 CHAIRPERSON BAILEY: Well, rule --16 COMMISSIONER BALCH: Rule 8.4, or 17 something like that. CHAIRPERSON BAILEY: It's Rule 4. 18 19 COMMISSIONER BALCH: Rule 4. 20 CHAIRPERSON BAILEY: And how to go ahead 21 and initiate a hearing and what kind of notice is 22 required. 23 COMMISSIONER BLOOM: Do you want to cite that, adding in "pursuant to," or "as per"? 24 CHAIRPERSON BAILEY: We can. 25

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Page 3081 "And the operator shall have 10 days after 1 2 receipt of notification to request a hearing 3 pursuant to 19.15.4." 4 Is that right? 5 COMMISSIONER BLOOM: That might make 6 sense. CHAIRPERSON BAILEY: And then we come to 7 F, which would be "Transfer of a permit." 8 9 The second sentence should be deleted, and -- well, up through "NMAC," and then a capital 10 "T" for: "The division's approval of an application 11 to transfer," is associated -- "will constitute 12 approval of the transfer of the permit." 13 14 Okay. But below-grade tanks are not permitted, they're registered. 15 16 COMMISSIONER BLOOM: I would agree. 17 CHAIRPERSON BAILEY: So we would remove 18 the word "tank" in both places. 19 COMMISSIONER BLOOM: Madam Chair, we may in the future have a well without a permitted pit, 20 because we may have a pit that is serving -- I guess 21 any pit is going to be associated with at least one 22 well. 23 24 COMMISSIONER BALCH: At least one well. COMMISSIONER BLOOM: So it still works. 25

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Page 3082 1 CHAIRPERSON BAILEY: Okay. So you are 2 ready for us to look at A and B and C, which was the OCD language. 3 COMMISSIONER BLOOM: You need a word after 4 5 "deficiencies." 6 CHAIRPERSON BAILEY: The last line of A, "within" needs to be one word. 7 Okay. Then are we agreed that those -- A, 8 B, and C are acceptable? 9 COMMISSIONER BLOOM: Agreed. 10 COMMISSIONER BALCH: Agreed. 11 12 CHAIRPERSON BAILEY: Okay. Going on down to B, that paragraph that's 13 14 listed under B, that whole thing should be deleted. Then for "Conditions," that becomes 15 16 paragraph D. The word "safety" on the third line needs 17 to be deleted. 18 19 What is our stop phrase? Was it "and" or "or"? 20 21 COMMISSIONER BLOOM: It's typically "and." But I think in cases of a denial it could be "or," 22 23 because you could deny for --24 COMMISSIONER BALCH: Any of the three 25 reasons.

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Page 3083 COMMISSIONER BLOOM: .-- any of the three 1 reasons. But I think this would be an "and." 2 3 CHAIRPERSON BAILEY: Okay. There is --4 COMMISSIONER BALCH: This one is --5 CHAIRPERSON BAILEY: Oh, wait. It's 6 missing a sentence here. "Safety or the environment 7 provided the conditions." Commissioner, again, would you give her 8 9 your copy of that portion of it so that she can... COMMISSIONER BLOOM: I don't have that on 10 mine. 11 COMMISSIONER BALCH: I don't have it 12 either. 13 14 CHAIRPERSON BAILEY: Oh, okay. COMMISSIONER BALCH: I haven't been 15 tracking that. 16 17 CHAIRPERSON BAILEY: All right. Then scrolling down to D, the first line, "The division 18 may deny." 19 20 COMMISSIONER BALCH: That would become E. CHAIRPERSON BAILEY: That becomes E, yes. 21 22 On the first line it says: "The division may deny;" and insert the words after "deny," "in 23 24 writing." Then the fourth line down we have the 25

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Page 3084 words "closed-loop system." That -- those words 1 2 should be deleted. COMMISSIONER BALCH: And below-grade tank. 3 CHAIRPERSON BAILEY: And "below-grade 4 5 tank," right beside it. And then where it says "without," change 6 7 that to "with equal or better protection of," and then delete "detriment to" the following words. 8 Okay. The following paragraph should be 9 renumbered F. 10 Madam Chair? COMMISSIONER BALCH: 11 CHAIRPERSON BAILEY: Yes. 12 COMMISSIONER BALCH: I think there's still 13 14 two things we need to fix on E. CHAIRPERSON BAILEY: Okay. What else 15 16 needs to be ... COMMISSIONER BALCH: We have "better 17 protection of fresh water, public health, and the 18 environment." 19 CHAIRPERSON BAILEY: Oh. 20 COMMISSIONER BALCH: "Or the environment," 21 22 in this case. CHAIRPERSON BAILEY: We need to delete the 23 word "safety." 24 25 COMMISSIONER BALCH: And then I have a --

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Page 3085 a question for the commissioners. 1 2 CHAIRPERSON BAILEY: Okay. COMMISSIONER BALCH: "Denial of 3 4 application. The division may deny in writing an 5 application for a permit." 6 CHAIRPERSON BAILEY: So we could put a 7 comma after "deny" and after "writing"? COMMISSIONER BALCH: Well, I'm wondering 8 if this allows them to deny verbally, if you say 9 "may deny in writing." 10 CHAIRPERSON BAILEY: Well, you have to go 11 to the next paragraph -- the next few lines, the 12 following clauses: "If it finds the application and 13 the materials that the operator submitted for the 14 application do not demonstrate..." 15 16 You're right. 17 COMMISSIONER BALCH: I'm reading it as being optional, "may deny." 18 19 CHAIRPERSON BAILEY: So you want to put 20 the word "shall"? COMMISSIONER BALCH: I think that's the 21 22 procedure anyway, right? These are always denied in 23 writing? 24 CHAIRPERSON BAILEY: No, they are not 25 always.

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Page 3086 Should they always be 1 COMMISSIONER BALCH: 2 denied in writing? CHAIRPERSON BAILEY: Yes, I believe they 3 4 should. Then "shall" would be COMMISSIONER BALCH: 5 a better word than "may." 6 7 COMMISSIONER BLOOM: That fixes it. CHAIRPERSON BAILEY: And delete the word 8 "may," right? 9 Are we okay with E? 10 COMMISSIONER BALCH: 11 Yes. COMMISSIONER BLOOM: 12 Yes. CHAIRPERSON BAILEY: Okay. Scroll on down 13 to F. 14 15 In the third sentence it says: "Any 16 modification" should be -- that whole sentence should be deleted. 17 18 Then coming up from the bottom, maybe the fourth line from the bottom, we have "after the 19 receipt of notification to request a hearing." 20 Instead of a period -- where your cursor 21 is, yes. 22 23 Instead of a period, add the words "pursuant to 19.15.4 NMAC." 24 25 The next two lines down we have the Okav.

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Page 3087 word "safety" at the end of the next-to-the-last 1 2 line. COMMISSIONER BALCH: "Public health and 3 4 safety, or the environment." Remove the word "safety." 5 And this, I think, is also in lower case. 6 7 COMMISSIONER BLOOM: I would agree. CHAIRPERSON BAILEY: Okay. The next 8 paragraph should be G. And the entire second 9 1.0 sentence that begins with "Except for" should be deleted. 11 No, stop after NMAC. Don't delete the 12 words after "NMAC." Delete that. Then "the" 13 becomes a capital "the." 14 15 Following along that sentence we have 16 "below-grade tank or closed-loop system." 17 COMMISSIONER BLOOM: Just go up a couple of lines. 18 CHAIRPERSON BAILEY: You'll delete 19 "below-grade tank or closed-loop system." 20 And also in the line above that we have 21 "below-grade tank or closed-loop system." And 22 delete the comma that's just before your cursor. 23 24 COMMISSIONER BALCH: And the remainder of 25 that language has to deal with the grandfather tanks

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Page 3088 which we have already dealt with in another section. 1 2 CHAIRPERSON BAILEY: Right. So all of 3 that language that has the crossout can be deleted. Then G becomes H, right? 4 5 COMMISSIONER BLOOM: Yes. CHAIRPERSON BAILEY: And H becomes I down 6 7 below. COMMISSIONER BALCH: 19.15.14.1206 through 8 1215, that's the specific regulations regarding OCD 9 hearings? 10 And so, 11 CHAIRPERSON BAILEY: Right. really, that's unnecessary. That's redundant, 12 13 because we inserted 19.15.4 in paragraph F. COMMISSIONER BLOOM: What's the difference 14 15 between 4 and 14?16 CHAIRPERSON BAILEY: 4 has to do with drilling permits -- I mean 14 has to do with 17 drilling permits, and so that is an incorrect --18 19 COMMISSIONER BALCH: That's not a 20 correct --CHAIRPERSON BAILEY: -- citation anyway. 21 So let's go ahead and delete, right? Because we 22 23 have already covered it. 24 COMMISSIONER BLOOM: I would agree. 25 CHAIRPERSON BAILEY: Okay.

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Page 3089 So, Kim, if you would just go ahead and 1 2 delete that. So shall we read that over, think about 3 it, take a break for 10 minutes and come back at 10 4 after and be able to vote on whether or not to 5 approve it as it stands here? 6 7 COMMISSIONER BLOOM: Madam Chair, that's fine. Thank you. 8 (A recess was taken from 10:00 a.m. to 9 10:11 a.m.) 10 CHAIRPERSON BAILEY: Okay. We should have 11 been reviewing the changes that we made in 12 19.15.17.16. 13 14 Commissioners, do I hear a motion for adoption of the new changes as we have gone through 15 16 this section? 17 COMMISSIONER BLOOM: Yes, I so move. 18 COMMISSIONER BALCH: And I will second. 19 CHAIRPERSON BAILEY: All those in favor? 20 Aye. 21 COMMISSIONER BALCH: Aye. 22 COMMISSIONER BLOOM: Aye. 23 CHAIRPERSON BAILEY: None opposed. 24 Passes 3 to 0. CHAIRPERSON BAILEY: I believe that we 25

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Page 3090 cannot address the areas that we skipped over, such 1 as closure, reclamation, siting, until we discuss 2 the low chloride fluids, drilling fluids, because 3 that does determine a lot of the decisions that are 4 5 made as far as those other categories are concerned. COMMISSIONER BALCH: A lot of the 6 7 discussion is -- is essentially intertwined. CHAIRPERSON BAILEY: Yes, it is. 8 9 COMMISSIONER BALCH: But I think we should, as you say, address the low chloride -- low 10 chloride fluids first. Because without it, we don't 11 12 context. 13 CHAIRPERSON BAILEY: That's right. 14 COMMISSIONER BLOOM: That puts us back up in definitions, correct? 15 16 CHAIRPERSON BAILEY: Yes. 17 So page 2, Kim. COMMISSIONER BALCH: Is this our last 18 definition? 19 Well, restore. 20 CHAIRPERSON BAILEY: We don't really get to restore until we talk about 21 reclamation. So it's the last -- it's the pivotal 22 23 one here. 24 Do I hear discussion on chloride fluids? 25 COMMISSIONER BALCH: Well, there was

Page 3091 actually guite a bit of discussion and testimony 1 about low chloride fluids. 2 I think in particular -- well, okay. So 3 there was a 30,000-foot view which came from Mr. Dan 4 5 Neeper. And then there were low chloride fluids 6 also discussed by technical experts Arthur and 7 Thomas. 8 If you place in the record for 9 Mr. Gantner, who I thought was perhaps relevant, 10 that starts on page 55, line 6: 11 12 "Okay. So we are talking now about siting, temporary pit siting. Water -- again, to 13 14 draw this distinction that one class doesn't fit all, we said that water-based drilling muds were 15 addressed by adding low chloride drilling fluids to 16 the definition. 17 18 "At first we didn't have a number. We just said low chlorides. Then we began looking for 19 20 numbers. We came up with 15,000 milligrams per liter threshold for low chloride drilling fluids. 21 22 "Now, this distinction will accommodate water-based fluids in the San Juan Basin, and that's 23 what" --24 25 I'm sorry. The next part is a question on

Page 3092 direct: 1 2 "Now, this distinction will accommodate water-based fluids in the San Juan Basin, and that's 3 4 what it's intended to do?" 5 And Gantner's response was: 6 "That's correct. It would distinguish the 7 difference between brine-type muds and low -water-based drilling fluids." 8 9 And then the other important part about that -- so part of Mr. Gantner's argument was a 10 practical aspect. 11 And a part of that was through analysis 12 and other product process knowledge. Because when 13 they look at other states -- and this is line 11 on 14 page 56: 15 16 "Texas has a definition for low chlorides, 17 and it's set at 3,000, but it's strictly for how you 18 dispose of the materials. They say if you are less than 3,000 milligrams per liter or kilogram of 19 chlorides, then you can land-spread it." 20 21 So if you have dry rocks that have salt on them, you can just throw them out on the ground. 22 23 Okay. You can land-spread the cuttings. "If it's above that, you have to dispose 24 25 in place" -- by burial, presumably. "But they don't

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Page 3093 prohibit a pit based on chlorides or a low chloride 1 number." 2 It continues to talk about Colorado. 3 "Colorado had something more to the 4 thinking that we were. They said that if you had 5 low chloride fluids, and they defined it at 15,000, 6 you didn't need to get a permit from the commission. 7 You could go ahead and have a pit without a permit. 8 Above that threshold, they said you have to have a 9 permit for that level. So 15,000 seemed reasonable 10 11 on that." 12 And then the final paragraph I thought of 13 Mr. Gantner's testimony that was relevant, it's on page 57, lines 3 through 8: 14 "The other thing that we used on 15 occasion -- the other thing that we used on 16 occasions, a material called KCL," slickwater, and 17 "which is usually a 2 percent solution for drilling. 18 Occasionally, you need that to control the well." 19 20 So this is an operational constraint. "And that would fall just below that 21 22 15,000 number. I think if you ran the math, the chloride comes to about 12- or 13,000" for 2 percent 23 KCL solution. 24 25 I paraphrased a little bit there at the

Page 3094 end. 1 Do you want me to continue with the direct 2 citations? 3 COMMISSIONER BLOOM: If you have others, 4 They are helpful references. 5 sure. COMMISSIONER BALCH: Okay. So Mr. Thomas 6 7 mostly talked about the chloride fluids in the context of risk and the pathways for 8 transportability. 9 10 The reference I have is on page 465, lines 6 through 22, that the risk is in the 11 12 transportability. And, let's see. 13 14 COMMISSIONER BLOOM: As in risk in 15 transport? 16 COMMISSIONER BALCH: Transport is if there 17 is a release of that fluid from the pit. That was 18 the context that was used there. Let's see. Mr. Arthur, on page 525, lines 19 20 7 through 25. This was -- he was --COMMISSIONER BLOOM: Before we go on. 21 From Dr. Thomas, I believe his slide, 22 Exhibit 11, Slide 14, mentioned adverse effect of 23 chlorides on plant growth. 24 25 COMMISSIONER BALCH: Right. That's why

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Page 3095 I'm bringing up the risk and the pathways. Because 1 a lot of the argument for low chloride fluid was 2 that you were reducing the risk to a manageable 3 level. And that was a justification for changing 4 siting and closure requirements for those cases. 5 Chloride was particularly talked about by 6 the technical experts Arthur and Thomas, because 7 with a good marker they could use that -- they could 8 assume if the chloride was there that the other 9 constituents of concern, which they boiled down to 10 TPH and benzene and chloride were present or could 11 be potentially present. 12 All right. Mr. Arthur's testimony on 13 page 525, lines 7 through 25. 14 15 Although it was questioned about closure, 16 he went on at great length about the primary risk of 17 a fluid release is going to be during the operational phase. He was very adamant in all of 18 his testimony that once it was dried and mixed and 19 stabilized, that there was very low transport risk. 20 And that was even lower in the case of the low 21 chloride fluids versus traditional drilling mud. 22 23 COMMISSIONER BLOOM: Do you recall if -- I 24 seem to remember Mr. Arthur saying that a fluid release could be a surface release or spill, as 25

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1 well. Is that correct?

4

2 COMMISSIONER BALCH: Yes. And that would 3 be covered by the spill rule on this.

COMMISSIONER BLOOM: Yes.

5 COMMISSIONER BALCH: Actually, a lot of 6 the larger chloride releases that I am aware of are 7 things like pipeline failure, where piping produced 8 water to expose a site and get a leak in the 9 pipeline, nobody notices it for a couple of days, 10 and you have a large spill.

11 So I'm going to page 540, lines 3 through 12 15. This is where Mr. Arthur is talking about the 13 difference between high and low chloride fluids.

14 So I just moved on from Mr. Thomas -- or 15 Dr. Thomas. Let me see if I can find the -- I'm 16 sorry. That's at the beginning of Volume 3, if 17 you're looking at the PDF, if you're tracking your 18 document that way.

Page 540, lines 3 through 15 reads -- it's
a question. I think this was on direct:

21 "And then back on page 2 -- I apologize
22 for jumping back and forth -- there is a definition
23 of low chloride fluids. And what's the reason that
24 the proposed industry revisions differentiate
25 between low chloride and non-chloride fluids?"

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Page 3097 And the answer from Mr. Arthur was: 1 "You know, when -- when you're -- when 2 3 you're dealing with water, really, from a different 4 number of different perspectives and not just with pits, but in this perspective pit, is that if I have 5 6 a low chloride fluid versus a fluid that may --7 maybe is very high in chloride, 200,000 milligrams 8 per liter TDS, treating those the same, managing those the same, really doesn't make sense 9 10 technically." 11 And then on page 541 there was a defining question on that. The question was: 12 "And as both a petroleum and environmental 13 engineer, does the level at which this distinction 14 is set, 15,000 milligrams per liter, make sense to 15 16 you?" 17 And the answer was: "It does. You know when -- and I could just think of the number of 18 different contexts, but relative to what we're 19 20 dealing with and what I've seen from EPA and a 21 number of states, that is a pretty good cutoff." 22 Let's see. On page 548, he was talking 23 about siting criteria with respect to low chlorides. It starts at the bottom, line 23. And there is a 24 25 question, again:

Page 3098 "In the first section here ùnder 1A, we 1 talk about changing the depth to groundwater from 50 2 to 25 feet below pits. And there is a distinction 3 4 there for low chloride fluids. And again for 50 feet, if it's not a low chloride fluid, what's 5 the rationale for that change?" 6 7 Mr. Arthur's answer on page 549, lines 4 through 17, essentially: 8 9 "When we look at some of the setback requirements -- and this occurs, Eric, really kind 10 of throughout these -- this part of the rule 11 section. But what we are really trying to do is 12 distinguish -- really, a couple of things. 13 "But one is that we have low chloride 14 fluids versus fluids that are not low chloride 15 16 fluids. So we're trying to adjust for those, and 17 then to look at what is appropriate based on -based on what we believe is appropriate. 18 "And why would it be appropriate" -- and 19 20 this is a question: 21 "And why would it be appropriate to have a lower -- why would it be appropriate to have a lower 22 depth to a low chloride fluid?" 23 24 And the answer was: 25 "Because there is less -- less risk,

Page 3099 less -- you know, less perceived risk, less 1 endangerment. It's a fresher water." 2 3 So it's coming back to the 4 transportability. 5 And then --COMMISSIONER BLOOM: Say that again, 6 7 less --8 COMMISSIONER BALCH: Less perceived risk 9 and less endangerment -- less risk, less perceived 10 risk, and less endangerment. It's fresher water, was his conclusion. 11 12 COMMISSIONER BLOOM: Commissioner Balch, could we cover here sort of a risk/benefit ratio or 13 what -- what sort of savings does the industry get 14 when you go from being able to site something at 15 25 feet above groundwater to -- from 50 feet? 16 17 COMMISSIONER BALCH: Well, I'm actually 18 getting to the arguments from that point of view. 19 And I want to stress that the arguments, as I heard 20 them and then as I reviewed the transcripts, is 21 really risk based and then response based. If you have a risk -- if you have a lower 22 chloride fluid you can -- you are more agile in your 23 response than if you have high chloride fluid. 24 You 25 can deal with it more effectively over a shorter

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1 period of time.

2 So on page 550 of the transcript, line 6, 3 there's another -- he's continuing his discussion. 4 And he says:

5 "What typically happens, even if you have, 6 say, some leak or something like that, unless it's a 7 drastic leak, you want to have -- you want to be 8 able to have time to be able to respond. And the 9 importance and significance of response, you know, I 10 think depends a little bit on the chloride content. 11 "But even from a longer-term period after

12 closure, when we talk about" -- I don't have to 13 repeat all of these "you knows."

"Once we have gotten a closure, you know, 14 15 and it's just -- just what you see is -- you don't tend to see from, say, a closed pit that you're 16 17 going to have 100,000, say, milligrams per liter 18 chlorides moving down and going on forever. Ιt 19 equalizes. It disperses. It dilutes. So we see it getting smaller and smaller over time. 20 And that's less of an issue with a lower -- or a low chloride 21 fluid than a high chloride fluid." 22

23 So basically the risk, according to what 24 Mr. Arthur has adduced, in my opinion -- and then if 25 you specify a low chloride fluid as you disperse

Page 3100

Page 3101 that plume across an area, you diminish the risk 1 2 even more. COMMISSIONER BLOOM: I think we have seen 3 4 that in most of the cases we have looked at with 5 respect to chlorides moving down. 6 COMMISSIONER BALCH: He goes on. I don't 7 know if you want me to keep talking about this. 8 But page 551, lines 10 through 14, he 9 uses -- this is in response -- that the response time justifies closure setbacks, for example, to 10 rivers and things like that. 11 12 And then on page 551, line 15, through page 552, line 16, he directly says as smaller 13 setbacks are protected, and that includes wetlands. 14 And -- on page 553, line 22, to page 554, 15 16 line 5. 17 And I think that's most of what I have on chlorides. 18 19 So just to summarize what I thought the industry argument was, you're reducing your -- the 20 21 reason that they were using low chloride fluids is because the risk was low and it reduced the chance 22 23 that the response would be able to adequately deal with it; and, therefore, the setbacks could be 24 25 closer, both vertically and horizontally. And that,

Page 3102 operationally, it fit in -- it was in line with what 1 2 other states had done. And also, operationally, they sometimes 3 4 used a KCL water in the northwest, and that would still be under that limit. And that would be 5 6 something that would be for safety -- used for 7 safety. So that's what I had. 8 I don't know what you might have found that you could add to that. 9 COMMISSIONER BLOOM: I would -- I quess I 10 would agree with you that chlorides tend to 11 disperse, or that the contamination level tends to 12 drop off with travel or distance from the site or 13 where something happens. I mean, we certainly have 14 15 seen that in some of the cases that Dr. Neeper did. 16 In some of the cases that Ms. Martin 17 cited, we see that the chlorides tail off and kind 18 of reduce as they move down -- downward. 19 They can still -- I think what matters, 20 though, is what level they are at and what that And I think -- I don't know if you've 21 means. 22 tracked some of Dr. Neeper's concerns about 23 chlorides. He speaks to a threat there, plans that -- we have fluids that are at the 24 15,000 milligrams per liter level, bearing in mind 25

Page 3103 that seawater is about 19,000 milligrams. 1 2 COMMISSIONER BALCH: Seawater is about 3 30,000. 4 COMMISSIONER BLOOM: I'm sorry? COMMISSIONER BALCH: Seawater is about 5 30,000. 6 7 COMMISSIONER BLOOM: Okay. I had 19. 8 COMMISSIONER BALCH: I actually paid -well, I'm not going to qualify that. I paid close 9 attention to all of the testimony, but I paid 10 particular attention to the -- the testimony and 11 modeling done by Dr. Neeper and also by Mr. Mullins, 12 13 because that's an area that I have some expertise 14 in. 15 I think the risk-based argument that was 16 presented by NMOGA was based on the idea that most 17 of your risk is going to be during the operational 18 phase. And if you build your model based on the operational phase, characteristically, you may have 19 20 infiltration rates that would give you results 21 consistent with modeling of Dr. Neeper. And if you look at what Mr. Mullins did, 22 he primarily did modeling based on the post-closure 23 phase, where you have material mixed, isolated, 24 25 dried, and buried.

Page 3104 So I would definitely agree with 1 2 Dr. Neeper. If you have 15,000 parts per million chloride water on the surface as a pond, or directly 3 impacting those first few inches of soil, you are 4 5 going to have an impact on plants. There's no doubt about that. 6 7 CHAIRPERSON BAILEY: But the guestion before us right now is whether or not we should make 8 a distinction between low chloride and high 9 chloride, and to put a level for definition of the 10 low chloride fluid at 15,000. 11 12 COMMISSIONER BALCH: Well, we --CHAIRPERSON BAILEY: We will get into 13 14 further discussions concerning siting and closure and reclamation. 15 COMMISSIONER BALCH: So maybe if I can go 16 17 back to the risk-based argument. The idea is if you have a -- say you have 18 a pond or you have a pit, and it's 15,000 CL in it 19 and it fails catastrophically, every bit of liquid 20 in there spreads out across the land. 21 You'll have an area that's affected. And 22 as we get away from the pit the effects will 23 diminish. 24 25 COMMISSIONER BLOOM: Can I ask you a

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Page 3105 question? 1 COMMISSIONER BALCH: 2 Sure. COMMISSIONER BLOOM: How does 3 15,000 milligrams per liter translate to milligrams 4 per kilogram? 5 COMMISSIONER BALCH: This is where Mr.- --6 7 Mr.- -- Dr. Thomas made a distinction of why they 8 went with liters versus kilograms. And that's because, to Dr. Thomas, all the risk was in the 9 10 transportability, the pathways. And the liquids provided a transportation pathway, and solids really 11 didn't. 12 And his estimation, particularly when you 13 14 consider the bentonite muds and the clays -- and I remember you cross-examining him on that pretty 15 extensively, so I'm not going to belabor that point. 16 17 So... 18 CHAIRPERSON BAILEY: Milligrams per liter deals with fluids --19 20 COMMISSIONER BALCH: Right. 21 CHAIRPERSON BAILEY: Where kilograms per liter will --22 23 COMMISSIONER BLOOM: I was wondering how 24 you translated that. I think somebody mentioned that in their testimony. I can't remember what it 25

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Page 3106 It was the equivalent of what would 1 was. 2 15,000 milligrams per liter be and milligrams per 3 kilograms. 4 COMMISSIONER BALCH: In some places they 5 use them interchangeably, which is probably not correct. 6 7 CHAIRPERSON BAILEY: It isn't. 8 COMMISSIONER BALCH: It would really 9 depend upon the material that you're looking at. 10 But certainly as you dry things out you would tend to concentrate things, which I think is why they 11 have the 3-to-1 mix there --12 13 CHAIRPERSON BAILEY: For the stabilization. 14 15 COMMISSIONER BALCH: -- for stabilization. 16 So if you basically concentrate your material by three times, as you turn it into a 17 solid, you then mix it to get it back to that 15,000 18 level. 19 20 COMMISSIONER BLOOM: The reason I ask this is because Dr. Neeper talked about how you get what 21 he called a death zone, on page 1261 of the 22 23 transcript, when chlorides are at 10,000 milligrams 24 per liter or higher. 25 And then in his work, when we talked about

	Page 3107
1	a pit that had been buried and was looking at the
2	surface, it looked like salt had come up. And the
3	only thing he found out there was snakeweed, which
4	is around page 1115 of the transcript.
5	Then he found what's called a death zone,
6	and found that the death zone was created in areas
7	where chlorides were at 250 to 4,000 milligrams per
8	kilogram.
9	COMMISSIONER BALCH: That was in the
10	surface of the soil.
11	COMMISSIONER BLOOM: Correct.
12	COMMISSIONER BALCH: And I think that's
13	probably true, if you were to have those levels
14	there.
15	I mean, there were some arguments by
16	Dr. Buchanan in rebuttal that native plants in the
17	southwest have a higher salt tolerance than you
18	might have in Missouri or something like that.
19	CHAIRPERSON BAILEY: It's
20	COMMISSIONER BALCH: It's apples and
21	oranges.
22	CHAIRPERSON BAILEY: Yes.
23	COMMISSIONER BALCH: Because what we're
24	faced with, what's proposed to us to do is not going
25	back to something like those pits that Dr. Neeper

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Page 3108 examined; it's going -- it's modifying Rule 17, 1 2 which is four or five years old, and there hasn't been any problems ever since then that anybody has 3 4 ever identified, surface or otherwise. 5 COMMISSIONER BLOOM: Which I cited one 6 reason maybe not to change the rule. And I gave the 7 example during the hearing that if we had really good measures for preventing deep sea catastrophes, 8 drilling catastrophes, and we want to scale it back, 9 10 then we end up with a Deepwater Horizon/Macondo type of accident. 11 So I don't know that current success 12 should be cited as a reason to scale things back. 13 COMMISSIONER BALCH: Well, I think if you 14 go to 603, then we can dome back to Mr. Arthur's 15 testimony. 16 17 It's page 603. And this is the argument 18 that Commissioner Bailey has brought up a couple of And that is: How much protection do you 19 times. 20 really need? 21 Basically, if you have the same level of protection at a lower concentration, at a lower 22 23 setback, why have the higher setback if it does cause issues otherwise, such as increases to 24 25 operating costs, and then potentially reductions to

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Page 3109 land sales from the land office or -- or I mean when 1 you sell the land, you get more money from that, you 2 also get a royalty right. So nothing -- the other 3 thing, you don't get that royalty money. I may not 4 5 understand how the land office works very well. 6 CHAIRPERSON BAILEY: Once again we are 7 getting away from the focus of what we need to deal 8 with at this moment. 9 COMMISSIONER BALCH: But I think that 10 this --CHAIRPERSON BAILEY: We will get to siting 11 requirements. We will get to reclamation 12 requirements. We will get to closure. 13 At this moment we need to determine if we 14 have a definition to deal with. 15 16 COMMISSIONER BALCH: Maybe my interpretation is incorrect. But I think that for 17 Mr. Bloom to make that definition he wants a little 18 19 more comfort with some of the other involved concepts. And I won't belabor it much longer. 20 21 But if I can put one or two more points 22 out. 23 COMMISSIONER BLOOM: And I will just go ahead and I'll state my concerns after that. 24 25 COMMISSIONER BALCH: Okay.

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Page 3110 So on page 603, this is Mr. Arthur. 1 And the question is: 2 "How would New Mexico's rules stack up 3 against other major producing states, even with the 4 industry revisions included in them? 5 6 "Well, one of the things we tried to do as 7 part of this -- I wanted to look at exactly that. So if you -- if you look just very generally at the 8 oil and gas producing states, you know, there's 9 about 33 states that do this." 10 And if you -- if we look at -- if you 11 12 remember -- and it talks about earlier... If I can paraphrase this? 13 14 CHAIRPERSON BAILEY: Sure. 15 COMMISSIONER BALCH: Okay. 16 CHAIRPERSON BAILEY: Because it's --17 everyone can go to the transcript if they want the specifics. 18 19 COMMISSIONER BALCH: It's lines 4 through -- 4, on page 603, through 17 on page 605. 20 So I'm probably not even going to read the entire 21 22 thing. 23 But he basically concludes that even with -- with every recommendation from NMOGA and 24 25 IPANM, that we would still have by far the most

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Page 3111 stringent regulations of all the oil producing 1 states. It would be more protective than anybody 2 else, even with the modifications. That's -- was 3 his opinion. And -- in looking at it from a 4 5 risk-based approach. So I think that's all I had on that. 6 7 CHAIRPERSON BAILEY: Commissioner Bloom, 8 you had some concerns? 9 COMMISSIONER BLOOM: Yes. So my -- I have 10 dual concerns. I think the reason that we have been 11 discussing what -- the significance of this point 12 that's been offered by NMOGA, that 13 15,000 milliliters per liter is important because it 14 crosses over to siting. And if we permitted low chloride fluids it would be another area allowing 15 them to be at 25 feet to groundwater. 16 17 And I think we've seen a significant number of cases here where Dr. Neeper and Ms. Martin 18 have had somebody come give public testimony. 19 As20 well, there might have been -- I'm blanking on his 21 name. 22 But there were quite a few cases where 23 chlorides got down into the 30, 40, 45-foot range. Mr. Boyd, I was thinking of, who came in. 24 25 So if we agree to the definition, we could

Page 3112 be agreeing to the siting requirements or vice 1 So I'm just concerned about it from that --2 versa. from that angle. 3 COMMISSIONER BALCH: Maybe this is another 4 5 apples and oranges thing, you know. The risk, I think -- and I agree with the 6 7 experts that the risk is in transportability, so you are looking at the operational phase. 8 9 The release is going to occur when the 10 fluid's in the pit and there's a breach of the pit. 11 A lot of the cases that were brought up 12 that had contaminant transport, chloride in particular, to the distances that you're talking 13 about, were unlined pits or pits that were not lined 14 under even Rule 50 standards or the initial Rule 17 15 standards. 16 17 So you're not -- you're looking at a scenario where things were not monitored very well 18 in the past. And if you had a release, or you might 19 20 have fluid sitting there in the pit for two years 21 and the liners degrade, if there was a liner, and 22 you have lots of material moving. 23 The risk is, in a modern pit defined under 24 Rule 17, or I think even under proposed 25 modifications to Rule 17, are still going to be in

Page 3113 1 transport. 2 But we have reduced that transport risk by reducing the amount of time a fluid is going to be 3 4 in the pit. 5 If you're -- in changing setbacks, you're reducing the amount of chlorides that can be in that 6 pit. If -- and you are having people inspect the 7 pits more often, keeping a log of it. 8 If there is a leak you have a response 9 10 time to deal with it, instead of looking at the pit three years after a leak occurred without any 11 remediation having occurred at that point. 12 13 Yes, you're going to see transport, because you have a head of chloride-loaded water 14 that nobody is doing anything to stop its movement. 15 But if the same leak were to occur in a 16 modern pit under any version of Rule 17 we are 17 considering, then there would be a much more 18 immediate response. And the experts testified that 19 20 at the low chlorides that risk was reduced even 21 more. 22 So if you had a leak in a pit right now, 23 the worst it would be is a week before somebody noticed, and then there would be an immediate 24 response under the spill rule to that, and it would 25

Page 3114 never make it to that 25 feet. And that's the 1 2 justification for having a low chloride fluid. It reduces the risks even further than if you had a 3 high chloride fluid. 4 But not only that, the policies in place, 5 even in modifications, are such that the response 6 time would be much, much faster than for the legacy 7 pits that did have problems. 8 9 COMMISSIONER BLOOM: In two of the pits 10 that -- and I'm wrapping up here, Madam Chairman. The two pits that concerned me were the 11 Pride Energy 1878, which was spudded in November of 12 2004, and then it was completed in March of 2005. 13 14 Sampling was in '08. 15 You have water. You have chlorides moving 16 at the velocity of 9 to 90 feet per year. And there was horizontal movement of 150 feet, with chlorides 17 at 14 feet up to 4,200 milligrams per kilogram, and 18 20 feet up to 2,600 milligrams per kilogram. 19 So... And then the other one was the AP94 20 21 Marbob. And that was spudded April '05. And in the soil investigation two years later, this had a --22 23 this pit had a 12-mil liner in Rule 50, and you end up with 45 feet below the pit level, 3,500 parts per 24 mil of chloride. 25

Page 3115 So these transport rates I find 1 2 concerning, where we have -- we could have temporary pits with fluids in them for 14 months, and then we 3 have this -- this chloride, which can affect plant 4 5 life. 6 COMMISSIONER BALCH: I might also want to 7 differentiate between transport rate and transport distance. 8 9 In the cases that you're talking about, we have a well spudded, so the pit is put into place 10 around that time, and we know that. So it's 2004 11 for Pride Energy -- both cases, really, 77 and 78, 12 closure around 2007, so three years of essentially 13 14 nobody looking at that pit. You don't know when the leak occurred, how it occurred, what the problem 15 Both of those pits would have used Rule 50, I 16 was. 17 believe. CHAIRPERSON BAILEY: With a thinner liner? 18 COMMISSIONER BALCH: With a thinner liner. 19 20 So rate is not -- it's probably not the correct way to discuss the results of those leaks, 21 because you don't know when the release occurred. 22 That rate -- the rate could have been an inch per 23 year. And if you multiply that by three years, then 24

25 you have your 200 feet or whatever.

Page 3116 I think most of the modeling on both sides 1 2 show that the -- that in general, the rates are not that guick. You wouldn't see 100, 150 feet away of 3 chloride in a week. You might see it after a couple 4 of years. 5 6 And that's really only -- and then the 7 drivers for that, also discussed by Mr. Arthur -and I could probably find the citation if you wanted 8 it -- is you have to have a continuing influx of 9 fluid to maintain a rate of flux, right? 10 To keep it pushing, you have to keep 11 adding fluid to it. If you don't add fluid to it 12 it's going to go to a certain point and stop. 13 14 CHAIRPERSON BAILEY: Similar to the head 15 that Dr. Neeper discussed. COMMISSIONER BALCH: Yes. 16 And then the Marbob case. Here we have a well spudded in 2005. 17 In 2007, when they -- when they looked at it, they 18 identified a compromised pit. Again, two years. 19 20 They don't know when the pit was compromised. You don't know how long or at what concentration rate 21 22 was in there. The rate is impossible to predict. 23 All you can see is the impact of what happened. 24 And I would -- I would posit that with the protections that we have in there, you have to look 25

Page 3117 at the pit while it's in operation once a week and 1 2 report on it once a month, I believe. Is that what 3 we came up with? 4 CHAIRPERSON BAILEY: I believe so. 5 COMMISSIONER BALCH: So the longest time 6 period you're going to have between a release -- and 7 it's probably going to be less, because people are out there on that site while it's in operation, for 8 the most part. 9 But even if they drilled a well and 10 they're just waiting for it to get pumped off, at 11 least once a week they're going to be looking at it. 12 So the greatest time period you're going to have 13 without an inspection of some sort is going to be a 14 15 week. 16 And the spill rule -- I think we had 17 testimony during the hearing that the results of not 18 dealing with a leak that is greater than 5 barrels is pretty painful. It can be quite expensive. 19 20 There's an incentive that did not exist at the time of AP94 or AP77 or AP78 to control your 21 22 fluids. The spill rule came into play in 2008, I believe. 23 CHAIRPERSON BAILEY: I believe there has 24 been a spill rule in effect. Now it's been amended, 25

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1 and that is probably when.

2 COMMISSIONER BLOOM: First of all, do you have any concerns about a leak, a compromise of the 3 liner that is probably small but steady over the 4 course of the year? I could see if there -- you 5 know if somebody tried to drill-bit into the pit and 6 7 you've got a six-inch hole, you might see the fluid level comes down noticeably overnight. But if it's 8 9 smaller than that, just from a rock puncture or something... 10 COMMISSIONER BALCH: This comes around 11 to -- this comes around to closure, which 12 Commissioner Bailey doesn't want us to talk about 13 yet. But when you close it, you're looking to see 14 15 if there's any wet or discolored soil, things like that, and then you have to test. 16

17 So if you're not careful about how you run 18 your pit, you're going to once again trigger that 19 testing, and then you're going to trigger the spill 20 rule if it exceeds that limit.

21 So I think, again, you're being 22 protective. And the fact that we have much more 23 oversight at all levels, you have much better 24 designed pits, you have thicker liners, you have 25 operational constraints of what can go into those

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Page 3119 pits. You can't throw your drill bit in there. If 1 you do you're going to get a fine, if somebody comes 2 out there and finds a drill bit. 3 I think when you tie that into risk, via 4 Dr. Thomas' argument of response time and 5 Mr. Arthur's argument of response time, you're not 6 7 going to see those kind of releases that were brought up, and I think rightfully brought up, 8 because they are a sign of what could happen. 9 But I think that what was demonstrated to 10 me, from the testimony of the experts, was that that 11 is extremely unlikely to occur. The risk is very 12 low under the constraints of Rule 17 as proposed. 13 14 I don't know if that answers your question. 15 16 COMMISSIONER BLOOM: Thank you. Madam Chair, I'll say I'm generally not in 17 support of the newly-proposed low chloride fluid 18 classification or definition. So if it's something 19 20 that you'd like to proceed with, I know you can do 21 that. COMMISSIONER BALCH: I've had this happen 22 And I think Commissioner Bailey will maybe 23 before. But I really think it's important that 24 frown at me. 25 we have a consensus wherever possible. So if I

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Page 3120 could understand where your concerns are from and 1 2 then maybe address them, I would try to do so. If you think that would be a futile 3 exercise then we could just move on and we can deal 4 5 with other consensus. 6 COMMISSIONER BLOOM: The -- part of my 7 concerns that I have with the low chloride fluid classification is how it affects siting. And so we 8 can turn to the siting and look at that. 9 But... 10 COMMISSIONER BALCH: Well, we are just talking about low chloride fluid, the definitions, 11 now, and siting would be a later discussion. 12 If you don't think the low chloride fluids 13 14 warrant the different siting criteria, that would be a discussion for later on. 15 16 CHAIRPERSON BAILEY: That's what I keep trying to say here. 17 18 COMMISSIONER BALCH: I want to lay the foundation. 19 20 CHAIRPERSON BAILEY: All we want is a definition, and then we can determine whether or not 21 we should have siting requirements that take that 22 23 into account or closure requirements or reclamation 24 requirements or operational requirements, once we 25 have this definition.

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1	COMMISSIONER BLOOM: Okay. Then I guess
2	the next question because part of the definition
3	is what is a good level to set low chloride fluid
4	at, what we consider low.
5	You know, there I've heard testimony
6	about the possible toxicity on plants at around
7	10,000. We have New Mexico Game and Fish asking
8	that low chloride fluids be left at no level higher
9	than 3,000 milligrams per liter.
10	We have heard some conflicting testimony
11	about the effects of chlorides on plants. And that
12	is something that has to deal with closure, and it
13	also comes in up front here as well.
14	So is the 15,000 milligrams per liter
15	where you-all want to be?
16	COMMISSIONER BALCH: Well, I'll restate my
17	opinion. And that is that the risk is primarily in
18	the operational phase. We have good monitoring
19	during that phase, and the transportability is
20	lower, much lower, once you stabilize whatever is
21	left in the pit after you've drained off the fluids.
22	So your risk is of a release during operation.
23	And at the 15,000 milligrams of chloride
24	per liter level, I'm comfortable with that level of
25	risk. I think it's very low, that you would have

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Page 3122 if you did have a release it would be noticed. Ιf 1 it was large enough under the spill rule to impact 2 surface fauna, which is basically you have an 3 overflow of the water, then it would be remediated. 4 It would be resolved. It wouldn't just be left 5 behind. 6 7 So I think it's protective. And in the sense that it allows for operation in the San Juan 8 Basin of KCL-drilled wells under that standard, I 9 would support it. 10 11 CHAIRPERSON BAILEY: The brine water that's required for drilling, which we have 12 13 testimony goes 12- to 13,000 parts per million, is 14 essential for the safe operation of any kind of 15 drilling operation. There are multi-purposes for the use of 16 17 brine water in preparation of drilling wells. It is a safety factor as well as an operational factor for 18 preventing swelling of clays, for example, so we 19 20 don't -- so we are able to drill to the depths that 21 oil and gas wells need to go to. 22 Because of the inherent concentration of 23 chlorides in drilling muds by using brine water, KCL 24 water, I believe 15,000 is a reasonable cutoff for the definition of low chlorides. 25

Page 3123 It is comparable to Colorado, which has 1 2 very strict environmental regulations for drilling. 3 It is more protective than the Texas requirement that allows land farming of 3,000 parts per million 4 that remain at the surface. 5 With the 15,000 milligrams per liter we 6 7 have before us areas where we can determine safety regulations that will protect safety, human health, 8 the environment. That's what we are charged with 9 doing. 10 And I think that that 15,000 is a 11 12 justifiable level for going farther in determining 13 the use of low chloride fluids and the remediation 14 that will be required. 15 COMMISSIONER BLOOM: Let me ask you this. Does -- I don't remember where the low 16 17 chloride fluids impact the pit rule. And right now I'm blanking on it, if it is anywhere outside of --18 outside of the siting requirements in Section 10. 19 20 COMMISSIONER BALCH: It's primarily -- I 21 think the primary impact of chlorides is going to be in closure. Can you --22 23 COMMISSIONER BLOOM: I guess -- and that's 24 where the apples and oranges thing is. The amount 25 of chlorides in the pit at the end of the process

Page 3124 does not necessarily depend on whether a low 1 chloride fluid was used up front. 2 COMMISSIONER BALCH: It will impact it to 3 4 some degree. Because if you have a -- basically 5 have a mud at the bottom of the pit, its very 6 constituents, one of them is going to be the fluid that is carrying it that has a higher concentration 7 of salt. Then, after you pump off the fluids, there 8 will still be a higher concentration in that mud. 9 And that's where the distinction comes in, but that 10 will be more of a closure discussion. 11 12 COMMISSIONER BLOOM: Yeah. I think that's 13 fine. I think originally I may have -- yesterday or Monday may have inflated some of my concerns about 14 chlorides as to other facts. 15 16 But my understanding of where low chloride fluids comes into play in the amendments to the pit 17 rule is really in Section 10, where we get into --18 19 we get into siting on -- and so I guess I'm opposed 20 to having low chloride fluids if they only exist to 21 reduce distance to groundwater and surface water. 22 Okay? 23 CHAIRPERSON BAILEY: The modeling that was 24 done by Mr. Mullins was based on 15,000 parts per 25 million.

Page 3125 And so when we have discussion on this 1 modeling, then that, I think, is one of the basic 2 assumptions. And so we have to take into account 3 4 and work with that definition. 5 COMMISSIONER BLOOM: I think we can take 6 into account that he modeled 15,000 milligrams per 7 liter, and then he shows how that shakes out -comes out in the model. And I expressed some of my 8 9 concerns about his modeling. COMMISSIONER BALCH: But I think that may 10 be better discussed when we are talking about --11 12 about siting and closure. The tentative, at least acceptance of a 13 definition of low chloride fluids is necessary 14 before we even begin that discussion. If there's no 15 low chloride fluids, maybe there's no point in 16 discussing Sections 10 and 11, right, with regards 17 to siting criteria in particular. 18 19 So I think we have to have some sort of a 20 definition, even if it's tentative, that we can base our discussion on. 21 And all of the evidence that was presented 22 23 by the industry side, NMOGA and IPANM, had to do 24 with that chloride level. And they did establish a 25 basis for that level in Colorado.

Page 3126 Mr. Arthur stated in a broad sense that 1 2 New Mexico regulations were more stringent even under all of the modifications. 3 Mr.- -- or, I'm sorry. Dr. Thomas --4 5 COMMISSIONER BLOOM: I would qualify Mr. Arthur's testimony as saying that we're the most 6 strict state. 7 COMMISSIONER BALCH: Well, I can give you 8 the citation if you want it. He did say that. 9 COMMISSIONER BLOOM: I think I still have 10 it. He said that: 11 12 "New Mexico's liner requirements are more 13 stringent than four out of the six states that I chose in this comparative analysis. New Mexico's 14 freeboards meet or exceed all other six states. 15 New Mexico has more detailed setback requirements 16 than all the other six states." 17 I'm not sure -- I can't recall what six 18 states they were. But, you know, previously he was 19 20 talking about this 33-state analysis and... 21 COMMISSIONER BALCH: I asked him about the six states in my examination of Mr. Arthur. 22 23 COMMISSIONER BLOOM: So liners are required for at least some pits in 23 states, 24 require some sort of minimum freeboard in 16 states. 25

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Page 3127 So if you look at Colorado and New Mexico and 1 2 Texas... COMMISSIONER BALCH: If we go to page 604 3 and 605, there's a couple of pages there saying --4 COMMISSIONER BLOOM: 5 Yeah. 6 COMMISSIONER BALCH: -- and you may have 7 missed part of what his response was. 8 My question on page 605 at line 9 -- and this goes to my statement of he broadly said our 9 rules are more stringent than anybody else's. 10 11 The question was: 12 "And even with the revisions to proposed 13 Rule 17, does that have an impact on New Mexico's leading position in how they regulate the impacts of 14 15 pits, or does that leave us still as one of the leading states?" 16 17 And the answer was: "I would say that with the proposed 18 19 rules -- the proposed Rule 17 is more detailed and 20 stringent than regulation rules in most of the other 21 states managing oil and gas production, and especially with high levels of current oil and gas 22 23 development." So that does qualify that statement a 24 little bit. 25

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Page 3128 COMMISSIONER BLOOM: And one of the things 1 I discussed with Mr. Arthur was do we necessarily 2 3 want to set our levels based on what other states are at? 4 5 If you compare us to the six more stringent states, or if you compare us to the six 6 least regulated states, of course they're regulated 7 by comparison. 8 So... 9 COMMISSIONER BALCH: Well, I think in general, you don't want to base your regulations 10 11 solely upon some other state's practice. For 12 example, we might look at the Texas standard, which 13 some people might think is too low. 14 But the other example on the other side, the standard that was taken by NMOGA was the 15,000 15 chloride standard. And Colorado was, by no means, a 16 conservative when it comes to regulating waste. 17 I think that's a -- I think the 15,000 18 level, besides being operationally important for use 19 20 of the KCL water, is essentially -- you know, even 21 if you don't want to talk about, right now, closure 22 or disposal on site, the difference between the 23 closed-loop system and being able to use a pit is 24 also determined by the low chloride fluids, and to 25 some extent the proposed setbacks for those.

Page 3129 Closed-loop systems are not appropriate 1 2 everywhere. That was testified to. There was a lot of testimony about the 3 And I -- there are some citations I can give 4 cost. 5 you directly from Mr. Gantner, I think in particular, and his experience of \$105,000 per well 6 additional cost for a closed-loop system. 7 Basically, the way I interpreted the 8 9 direct testimony was that the current rule did not allow practices that would really be safe, and 10 11 that's why they were asking for these things to be relaxed a little bit -- not removed, not taken down 12 13 to the Texas level, perhaps, but lowered to 14 something that made a little more business sense, but still providéd a low risk, but you would not be 15 as protective of public health, environment, and 16 fresh water. 17 COMMISSIONER BLOOM: I may have gone 18 astray a little bit again. Again, I -- I can't join 19 you in adopting this definition right now. 20 If we want to set it aside, look at siting requirements, 21 and do so. 22 23 CHAIRPERSON BAILEY: The siting requirements proposed changes are based on low 24 25 chloride fluids. If you take a moment to go over to

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1 Section 2.

2 COMMISSIONER BLOOM: No, and I certainly 3 understand that. And if we are moving forward with 4 this definition I don't support a temporary pit even 5 with low chloride fluids. It distances -- as close 6 as 25 feet to the groundwater. 7 COMMISSIONER BALCH: But I think that's a 8 separate issue of why you think it's a low chloride

9 fluid or not. I mean if you are at a point where 10 you can't say that 15,000 is a low chloride fluid,

11 then we are possibly not going to get past that.

12 COMMISSIONER BLOOM: Yeah. I mean that's 13 the point I'm at right now.

14 COMMISSIONER BALCH: So we can either 15 agree to discuss siting closure with that 16 understanding that it's based upon the proposed 17 definition, or we can adopt the definition -- or we 18 can try to adopt the definition without Mr. Bloom's 19 support.

20 CHAIRPERSON BAILEY: I think that we 21 should go ahead and go to siting, and maybe we can 22 find a common ground.

If Mr. Bloom's concerns have to do with low chloride, as defined, then we will have that siting discussion. Or if there -- we'll just see

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Page 3131 i how that discussion goes. 2 COMMISSIONER BLOOM: Okay. Sure. 3 COMMISSIONER BALCH: Let me ask one more 4 question of you. 5 COMMISSIONER BLOOM: Okav. 6 COMMISSIONER BALCH: Do you think that a discussion of siting closure would make the 7 definition more clear in your mind, or is there just 8 no chance you're ever going to accept the definition 9 of low chloride fluids at 15,000? 10 COMMISSIONER BLOOM: If you change the 11 siting requirements I would be in favor of adopting 12 it, because it essentially wouldn't matter. So I'm 13 14 not going to do that. 15 CHAIRPERSON BAILEY: Okay. So let's go on to siting. If we can't reach any agreements with 16 that, then we'll just have to go ahead and not have 17 a consensus, or just have a majority of the 18 commission. 19 20 If we will go to 19.15.17.10, "Siting Requirements." 21 The first proposed language is to include 22 multi-well fluid management pits in the siting 23 24 requirements, and to remove below-grade tank as being constrained by siting requirements. 25

Page 3132 1 COMMISSIONER BALCH: Okay. So the way 2 this section is organized, you have A, then you have (1) and (2). (1) is "Temporary/Multi-Well Pits," 3 and (2) is "Permanent Pits." 4 5 CHAIRPERSON BAILEY: Right. 6 COMMISSIONER BALCH: I would say that we 7 probably ought to look at multi-well pit and siting requirements separately from temporary pits. 8 9 CHAIRPERSON BAILEY: Okay. COMMISSIONER BALCH: And then that would 10 be A (1), (2), and (3). 11 12 CHAIRPERSON BAILEY: Yes. So we can begin 13 with simply looking at siting requirements for 14 temporary pits. 15 COMMISSIONER BLOOM: And come back and look at multi-well? 16 17 COMMISSIONER BALCH: Well, I'm saying because of the logical progression of the temporary, 18 multi-well, and the permanent. 19 20 CHAIRPERSON BAILEY: Right. 21 COMMISSIONER BLOOM: Okay. 22 COMMISSIONER BALCH: Because you have 23 temporary, permanent, and the hybrid. 24 CHAIRPERSON BAILEY: So dealing only with 25 temporary pits, subsection A, we have already agreed

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Page 3133 not to have the distinction between confined or 1 unconfined waters. So in A we can delete 2 "unconfined," which appears to have already been 3 4 done. COMMISSIONER BALCH: I don't think we want 5 6 to -- I mean, I think we had a word search done on that word. 7 8 CHAIRPERSON BAILEY: Okay. 9 COMMISSIONER BALCH: Do you want to delete the "or multi-well fluid management pit on 10 below-grade tank"? 11 12 CHAIRPERSON BAILEY: I think we have agreed to do that and save it for a different 13 14 section. COMMISSIONER BLOOM: That's fine. 15 16 CHAIRPERSON BAILEY: So just a colon after "temporary pit." 17 The question before us now is whether or 18 not, A, an operator can locate a temporary pit where 19 20 groundwater is less than 25 feet below the surface -- or below the bottom of the pit, if that 21 pit contains low chloride fluid. 22 23 If the pit contains higher -- or fluid that does not meet a definition of low chloride 24 fluid, then groundwater must be 50 feet below the 25

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1 bottom of the pit.

2 COMMISSIONER BALCH: Which is the current.
3 CHAIRPERSON BAILEY: Which is the current
4 regulation.

5 COMMISSIONER BALCH: Would it be helpful 6 to look at an exhibit that tabulates the siting 7 requirements?

8 COMMISSIONER BLOOM: I think what happened 9 here is, the proposal was to have groundwater at 10 25 feet below the bottom of the pit when it was 11 unconfined groundwater; otherwise, it was going to 12 be at 50 feet.

13 CHAIRPERSON BAILEY: But we've eliminated 14 that distinction for confined or unconfined. So 15 we're saying where groundwater is less.

16 COMMISSIONER BLOOM: Right. So then I 17 think it would be -- by not recognizing groundwater, 18 don't we then leave behind the proposed change to 19 25B? Because that was only to be for an area where 20 there was confined groundwater.

21 COMMISSIONER BALCH: Well, I think the 22 intent -- I think the intent was that if you -- my 23 interpretation is that if you have low chloride that 24 it's is 25. If you have high -- anything else, 25 that's 50. And confined or unconfined, we have

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1 removed that distinction.

2 COMMISSIONER BLOOM: Because the proposal 3 was if there was unconfined groundwater at less than 4 25 feet, I guess only a low chloride fluid could be 5 used?

6 COMMISSIONER BALCH: Maybe. We could 7 refer to NMOGA Exhibit 3-6, which was the exhibit 8 Mr. Hansely used when he was discussing his part of 9 the rule.

This is why I think the intent was based 10 upon the floras in the drilling fluid, based on 11 12 where the groundwater was confined or otherwise. 13 And this shows the changes to siting requirements. Essentially, if you're above low 14 15 chlorides, then the siting requirements would be unchanged from the existing Rule 17, and they would 16 be reduced in four categories if they were low 17 chloride. They would be reduced in groundwater 18 depth, they would be reduced in distance to a 19 watercourse, reduced in distance to a water well, 20 21 and reduced to a wetland. 22 CHAIRPERSON BAILEY: But if it doesn't 23 qualify as low chloride, then there are no changes.

24 COMMISSIONER BALCH: No changes were 25 requested.

Page 3136 1 CHAIRPERSON BAILEY: That's right. So 2 it's only for low chloride fluids. Okay. 3 COMMISSIONER BLOOM: CHAIRPERSON BAILEY: 4 So we need to determine if we have that -- that definition for low 5 chloride fluids, if we can change the distance to 6 7 groundwater from the bottom of the pit. COMMISSIONER BALCH: I think they would 8 9 pick the instruction of the lower chloride content -- much of which, by the way, as it was also 10 pointed out by Mr. Arthur, is bound chloride, not 11 free to form particle salts, as potassium chloride. 12 13 That -- and with the response time, based 14 upon the inspection level at a minimum of every 15 week, more often during operation, when something is 16 likely to go wrong. But I would be comfortable with 17 that. 18 CHAIRPERSON BAILEY: And at this point, I'd like to bring out Mr. Mullins' model, which had 19 to do with distance to groundwater 25 feet, given 20 low chloride fluids, and the concentration of 21 chlorides that would be found if regulation is 22 performed and closure is performed in the way it's 23 been proposed or it -- yes. 24 25 What are the possibilities, and do we

Page 3137 1 interpret Mr. Mullins' calculations and the 2 concentrations, which I think is the key to everything. 3 4 COMMISSIONER BALCH: Okay. So for Mr. Mullins' modeling, his modeling was really for 5 the case of a closed site. It wasn't for 6 7 infiltration with a hydraulic head. It was for natural infiltration using rainfall rates that he 8 attained from historic data. 9 10 CHAIRPERSON BAILEY: Right. And to the extent COMMISSIONER BALCH: 11 that it's inadvisable to model much longer than the 12 data that you have, the key input data that he has 13 is probably 50 years' worth of weather data. 14 15 So you're looking at around 50 years of meaningful model in anybody's case that uses that 16 17 infiltration rate. 18 But we are really not looking, here, at that issue. We are looking at siting for the 19 operational phase where you are going to get fluids 20 that are there temporarily in a light head. 21 Ιf there's a leak, there will be a response. And the 22 risk in that case is low, and also different than 23 the risk of the stabilized and dry material left on 24 25 site, which we'll talk about during closure.

1 CHAIRPERSON BAILEY: You're right. 2 COMMISSIONER BALCH: So I think that's why 3 I'm comfortable with changing this distance. It's 4 not because of Mr. Mullins' modeling. That will 5 come up later in a different context. But it's 6 because you're going to have, at most, a week of 7 fluid draining.

8 There is a defined system for checking 9 whether your pit is structurally working, and there is a defined response in this and in the spill rule 10 for what you do. There would be a response. 11 It wouldn't sit there for two to three years with a 12 13 hydraulic head on it pumping water down into the 14 water table. It would only be for a very short 15 period of time for which, when a leak was identified, it would be drained, we would move the 16 17 head, you'd remove the force that is pushing the fluid. 18

19 CHAIRPERSON BAILEY: And we have 20 determined the length of time that we would allow 21 fluids, even with extensions of time. 22 COMMISSIONER BALCH: Yes. 23 CHAIRPERSON BAILEY: And during the --24 COMMISSIONER BALCH: And during that time 25 there would be a weekly inspection. So the longest

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Page 3139 you'd have of unabated significant release would be 1 2 a week. And that would be protective, and was 3 presented as -- in testimony -- as protective, based on the risk of the release. And if there was a 4 release, you could respond to it for a breach of 5 groundwater at a 25-foot depth. 6 7 I believe that is in Mr. Thomas' testimony. I have the citation, but not... 8 9 COMMISSIONER BLOOM: What was the last part again? If there was a leak, you could --10 COMMISSIONER BALCH: You would respond to 11 it within a week. So you don't have a year or two 12 years of hydraulic pushing fluid. You're going to 13 14 have a contained leak due to the fact that you would 15 notice it in a week. If it was a tear in the liner 16 or you saw the fluid level drop, you would pump all the fluid off within 48 hours. Okay? So nine days 17 would be the effective length that a leak could be 18 pushing fluid into the ground. 19 20 And the evidence that was presented to us 21 by the experts was that in that case it would not 22 reach groundwater within nine days, or they said it would be protected, which can be implied to mean 23 24 that. 25 Now, Dr. Neeper's models I think also did

Page 3140 not say that they would be there within nine days. 1 And that was assuming infiltration rates that we are 2 talking about. 3 COMMISSIONER BALCH: Okay. So that's the 4 risk side of it. 5 What's the reward side of it? 6 The reward side of it is you can allow the 7 operator to be more flexible in their operations. 8 They don't have to use a closed-loop system. 9 Potentially, in our discussion of closure, they may 10 not have to necessarily haul the waste offsite. 11 That's for a different discussion. 12 13 They can use the correct operation for a site. 14 There are some places that a closed-loop system would be better, other places they wouldn't 15 And we'll talk about the siting for tanks later 16 be. I think they actually recommend that the 17 on. groundwater below a tank be 10 feet, because it is 18 protective. I mean, is contained in the tank. 19 Basically, we're not leaving these things 20 21 laying around like we used to. We're keeping a close eye on them. Any release -- significant 22 release that would trigger this spill rule and 23 24 remediation process would, at most, have a nine-day 25 period when the leak was occurring.

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Page 3141 1 CHAIRPERSON BAILEY: It's a better 2 precautionary design and construction. 3 COMMISSIONER BALCH: And better design 4 construction. So the reward is I quess, if you will --5 and Mr. Smith said we could use that as a 6 7 consideration -- is that if we reduce operating 8 costs or allow flexible operating costs, you allow flexible operating procedures to release costs and 9 more capital is available for other development by 10 leases drilling other wells. And that benefits the 11 state of New Mexico which, to me, is very important. 12 13 COMMISSIONER BLOOM: Waste is -- it's on 14 the waste case, though, because -- but I think oil 15 and gas is still there. Maybe at a future time there will be technologies which allow for this 16 extraction and that it, therefore, becomes 17 economical again. 18 And I give the case, for example, of we 19 20 are now exploiting oil shales that we couldn't have 21 exploited 20 years ago. We could have gone down 22 straight into them; it wasn't economically viable. But now that oil is recoverable because you can go 23 24 through horizontally and directionally drill it. 25 COMMISSIONER BALCH: But I want to also

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Page 3142 bring up the point that it's not as operationally 1 2 safe to try to drill along horizontal, such as what you need for a shale well, in a closed-loop system. 3 So the question -- I think you maybe 4 5 address this in your interpretation of Continental versus SEC. When is the lease defined? What is 6 7 waste in the context of time? 8 Because you are correct. They argue that the oil and gas is still there. 9 So... No, I didn't address that. 10 MR. SMITH: 11 The issue was -- yesterday, we talked about the --12 the issue was whether, as I perceived it, was 13 whether you could take the economics of the industry 14 into account. And my recollection is that NMOGA argued that it was a matter of waste if it -- if 15 development was discouraged. And OGAP argued that 16 if it's left in the ground that doesn't mean it's 17 waste because it can still be pulled out later on. 18 And those arguments, however, were in 19 20 service, I believe, of whether economics could be 21 taken into account. 22 And my answer to you was that I believe that economics could be taken into account. 23 Ι didn't rely on the definition of waste; I relied on 24 the necessity of regulations being reasonable and a 25

citation to the Clean Water Act that discussed
 economics of a project.

So I didn't really answer the question on 3 4 whether waste means producing in such a way that it 5 neutralizes a particular area or whether it means not encouraging development. I didn't answer that. 6 7 COMMISSIONER BALCH: In the context of some of the permits for acid gas injection wells 8 that come before the commission, I remember an 9 example through my own experience. Waste would 10 be -- there would be arguments, perhaps, that if you 11 have that acid gas injection well there you would 12 isolate or dilute or in other ways damage the 13 producibility of some other zone or area of interest 14 15 nearby. And it seems like waste, when we have 16 talked about it for -- in commission hearings, and I 17 understand that you have only been involved in the 18 pit rule hearing -- has been looked at a little more 19 short-term than forever. 20 21 You know we look at it as if you cause an 22 impact over the near future to producibility of oil 23 and gas then we cause waste. That has been argued to us before. 24

Now, OGAP's argument is that it will

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Page 3144 always be there. 1 So looking at the numeration of powers --2 3 and this is just the other powers. It doesn't really talk about the waste in it. I don't have a 4 5 page that talks about waste and correlative rights. MR. SMITH: There are several definitions 6 of waste. 7 8 COMMISSIONER BALCH: Well, and then I also just brought up the word "correlative rights." 9 Our first duty is to prevent waste. 10 11 The second one is to produce -- or to prevent correlative -- or preserve correlative 12 rights. 13 And then we have a list of 22 other powers 14 that we have. 15 16 So the reason I think that in my mind I 17 have interpreted waste as more of a short-term thing 18 is because of the correlative rights side of the 19 issue. So if you make it uneconomical for a 20 21 company to produce their gas lease, you have removed their right to that resource, in a sense. 22 23 I'm not sure that's the way correlative rights has been interpreted. 24 25 MR. SMITH: That is an even more than

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Page 3145 1 over-lunch question. CHAIRPERSON BAILEY: Because we also have 2 3 the definition of correlative rights in the OCD regulations. 4 5 COMMISSIONER BALCH: Okav. 6 CHAIRPERSON BAILEY: I have it here, if 7 you'd like to look at it over lunch. COMMISSIONER BALCH: 8 Is this waste issue 9 of such importance that we have to resolve whether a thousand years' worth of not producing it versus a 10 time of years not producing it is waste? 11 How important is the waste issue to you? 12 13 COMMISSIONER BLOOM: I think it's a 14 fundamental issue of the hearing. It's one of them, and protection of water and public health. 15 But... Well, will it help 16 COMMISSIONER BALCH: you to have that clarified? 17 18 COMMISSIONER BLOOM: Well --19 It's unlikely to COMMISSIONER BALCH: change? 20 COMMISSIONER BLOOM: I think I know where 21 I stand on it. And that is that -- and that is that 22 regulations such as these aren't creating a waste of 23 24 the resource. And waste is if we are going to do 25 things that would allow, for example, spacing so

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Page 3146 close, there's so much penetration of formations 1 2 they crash pressure and then -- you know, sort of the things from the early days of oil and gas. 3 That's one of the reasons you find the 4 creation of the OCD, for example. And there are --5 the regulations they may think are uneconomical at 6 some points, but it doesn't mean that the resource 7 has been wasted. 8 And I think I expressed, perhaps on 9 Monday, that I haven't seen particular evidence of 10 waste. And I have heard little evidence about the 11 12 effects of acquiring a closed-loop system on the 13 economics of the companies. COMMISSIONER BALCH: Well, there was a lot 14 15 of testimony on the closed-loop system and the impact of the costs of operations. 16 COMMISSIONER BLOOM: Well, I -- I mean, I 17 quess I don't qualify a few minutes of Mr. Gantner's 18 testimony as significant when we didn't even have a 19 20 breakdown of what those costs were. We asked for 21 it, we didn't receive it. He didn't know if it even 22 included the taxable implications of how does that reduce the cost, by the time you take that out of 23 your profit. 24 COMMISSIONER BALCH: We talked about this 25

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1	on Monday. There was Mr. Gantner's testimony, there
2	was Ms. Denomy's testimony, there was testimony from
3	Mr. Scott. And there was at-length discussion, so I
4	don't think it's insignificant testimony.
5	Now whether the specifics were to what you
6	want, I'm not sure if you would ever get to an
7	agreement on that. But everybody that we asked said
8	that there was some cost, whether it was a penny or
9	\$300,000, some cost.
10	COMMISSIONER BLOOM: No, I wouldn't
11	disagree with that.
12	COMMISSIONER BALCH: So there is some
13	impact on that. At some level you will have an
14	impact on production. And I
15	COMMISSIONER BLOOM: But I didn't hear,
16	for example, Conoco saying, you know, we can't
17	operate in New Mexico.
18	I didn't see companies coming in
19	COMMISSIONER BALCH: Well, they can
20	operate he did not say that. But he did say in
21	his direct testimony that if they weren't forced to
22	use closed-loop systems in 100 percent of their
23	operations, and instead could use it in 20 percent
24	where it's appropriate, that that additional capital
25	would be used for further development.

Page 3148 Further development means more wells, more 1 gas, more state revenues. And I think we did say we 2 were entitled to look at production of revenues of 3 4 the state as potential costs. 5 MR. SMITH: I think that you can look at 6 the economic impact of your regulations, you know, 7 to the state and to the regulated community. Ι would like to say this, though, before you go too 8 much further down the waste discussion. 9 There are some definitions, several 10 11 definitions of waste, actually, I think, in the Act. 12 I don't know whether those will resolve the issue, at least as I perceive it, between Commissioner 13 Bloom and Commissioner Balch on the definition of 14 15 waste. Those -- that controversy, I can't promise 16 17 you this. But I believe that controversy to be unresolved. And if you go either way predicated on 18 your definition of waste, then I think you are, in 19 20 either case, going to wind up leaving it to a Court to make that determination. 21 If you are able to resolve the 22 practicalities of your differences without focusing 23 on the definition of waste, I think in all 24 25 likelihood wherever you land on it you are going to

Page 3149 land on safer regulatory ground. 1 And as I say, I can't promise you that 2 3 it's unresolved, but I believe that it is in that 4 stage. 5 CHAIRPERSON BAILEY: Thank you for those 6 comments. 7 COMMISSIONER BALCH: Well, then, I will 8 not base my definition on waste. I will, instead, 9 base it on revenues to the state. 10 COMMISSIONER BLOOM: We heard Mr. Scott 11 say a few words about that. And that was his belief that the state land office is doing guite well on 12 its sales. And we have seen over the time that the 13 14 pit rule has been in effect, almost, an increase of 15 what we have seen in the monthly lease sale. It was 16 \$100 million last year. 17 COMMISSIONER BALCH: I think that's -this is an apples and oranges thing. We -- on 18 19 Monday, again, we looked at Mr. Scott's comparison 20 of three counties in New Mexico and three counties 21 in Texas. We started out with a 2-to-1 development 22 difference between Texas and New Mexico in essentially the same rock. And everybody had a 23 little economic downturn. 24 25 The price of oil skyrocketed. You saw a

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Page 3150 lot of development in Texas, maybe up to 5- or 1 6-to-1 compared to development in New Mexico, which 2 was steady, compared to the time of the 3 4 implementation of the pit rule. 5 COMMISSIONER BLOOM: And we don't know what else might have been happening in Texas at that 6 7 time. If there was one company driving production of certain units there to work new formations. 8 9 COMMISSIONER BALCH: If you were talking about a month or a few months I would agree. 10 If you were talking about a period of four or five years of 11 data, and you would maybe see a blip if it was one 12 company. 13 If it's systematic, then you see a trend. 14 Now, the trend is that there was a lot more 15 16 development in Texas than there was in New Mexico for the same global economic conditions. 17 COMMISSIONER BLOOM: 18 I just don't know that we have heard enough there to say that 19 20 production is up in New Mexico. We didn't hear 21 testimony to that. So... 22 COMMISSIONER BALCH: Actually, we have 23 exhibits that were talked about at great extent that 24 show the counts the same still five years later. 25 And it dipped in the interim and then it slowly

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Page 3151 recovered to that level and then went, essentially, 1 2 flat. While at the same time you have an 3 increase in Texas, a dip for something that also 4 affected New Mexico, and then a much steeper 5 increase in recount in Texas. 6 So I think there really was enough 7 evidence presented, and we did cross-examine 8 9 Mr. Scott at great length. Where we have a different interpretation 10 of his testimony -- I think there may be differences 11 in interpretation. But I don't think there's a 12 paucity of evidence presented to us. What we do 13 with that evidence is up to us as individuals. 14 15 COMMISSIONER BLOOM: Okay. Well, I'll 16 respectfully disagree there and leave it at that. 17 CHAIRPERSON BAILEY: If we go back to this 19.15.17.10.A (1), Commissioner Bloom, would you be 18 more comfortable having a qualifier for the low 19 chloride fluid, if it were water-based, to be within 20 25 feet? 21 COMMISSIONER BLOOM: Madam Chairman, I'm 22 still concerned about possible leaks of liner that 23 could go undetected, that there's not a significant 24 drop of water level so much in a week that it would 25

Page 3152 1 be noticed. It could be out there for 10 months or 2 more. I think we have seen -- you know, 3 fortunately the current rule may have worked too 4 well. We don't have examples of pits that have 5 leaked. And --6 CHAIRPERSON BAILEY: 7 Because we're not changing the design and construction requirements 8 9 for a temporary pit. We are retaining that thicker liner material. 10 COMMISSIONER BLOOM: But now we are 11 leaving some -- I understand that. That is one 12 reason I feel comfortable allowing the fluids to be 13 in the pit a little bit longer, that we have, 14 15 usually, multi-well temporary pits. When I look at some of the cases that 16 17 Dr. Neeper presented, Mr. Boyd, and Ms. Martin, I see Dr. Neeper's Well 49 leaching of the chlorides 18 25 to 30 feet; Well 321 leaching of the chlorides 30 19 to 35 feet; Mr. Boyd, 30 feet -- chlorides 20 penetrating to 30 feet with groundwater at 50 feet. 21 EP81 Chevron down to 20 feet is where that 22 one ended. 23 Pride Energy 1878 down to 30 feet. 24 He modeled it at 20 feet. 25

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1	So this area, I think, is pretty
2	vulnerable between 25 and 50 feet. So that's
3	that's why I'm opposed to having pits sited over
4	groundwater at 25-plus feet.
5	CHAIRPERSON BAILEY: Then why don't we
6	drop A for just a short time and go to B and see if
7	we can find any kind of common ground for changing
8	the distance for low chloride fluids to a
9	continuously flowing watercourse.
10	COMMISSIONER BLOOM: Okay.
11	CHAIRPERSON BAILEY: Because currently,
12	that siting requirement is 300 feet to a
13	continuously flowing watercourse, which we have
14	tightened up the definition for.
15	The suggested change is to take this to
16	100 feet for low chloride fluids or 200 feet of any
17,	other significant watercourse, which is the same, or
18	lakebed, sinkhole, or playa lake.
19	COMMISSIONER BLOOM: The only change here
20	would be if the pit has low chloride fluids, the
21	setback goes from 300 feet to 100 feet for a
22	continuously flowing watercourse.
23	CHAIRPERSON BAILEY: Correct.
24	COMMISSIONER BLOOM: What modeling did we
25	see about horizontal transport?

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1 COMMISSIONER BALCH: The horizontal 2 transport modeling was what happened to the 3 chlorides once you reached the water table surface -- subsurface. 4 The evidence that I found in the 5 6 transcript, and from my recollection of the 7 testimony, had to do with an assortment of experts saying, again, the risk is low because the response 8 would resolve the issue before the water would make 9 it that 100 feet. 10 Particularly, Mr. Arthur -- well, again, 11 the citation from before considering the operational 12 13 phase. 14 So again, that intense monitoring on closing the pit, we had a large release. 15 The 16 response would be the -- the risk before it would 17 reach that distance. At the end of each of these -- the 18 witnesses presented by NMOGA, Mr. Carr or Mr. Hiser, 19 20 depending on who was questioning them, would ask them if the rules as presented were protective, and 21 they all agreed that they were, so it's their 22 23 testimony. 24 There was cross-examination, and I think 25 we were all left with our interpretation of that.

Page 3155 But there was testimony that it was not modeled. 1 And I'll let you know -- this is a very 2 3 brief philosophical side point. I am a modeler, and I don't trust them further than I can throw them. 4 T 5 prefer to rely on physical data. 6 And to the extent that physical data was 7 presented I have a higher comfort level -- I have a comfort level with many of the criteria that were 8 suggested, particularly because of the salt. 9 The fact that we're talking about 25 feet 10 from the bottom of the pit you have a shorter 11 response period and you have a defined mitigation 12 response. 13 Those flows aren't going to make it down 14 15 there in the time that they have before they are dealt with. Or, according to the expert testimony, 16 17 it's not going to make it across the surface either, in those cases, even under sheath flow. And this 18 alleges you would have an even greater reduction of 19 risk because of the chloride concentration. 20 21 And you know, I think Mr. Arthur said that he didn't even think that 15,000 limit was -- was 22 23 high enough. He thought it was conservative. 24 So it really depends on your 25 interpretation of the evidence and what you -- what

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Page 3156 you think was meaningful or whether -- whether they 1 2 presented enough to make a judgment, in your 3 estimation. COMMISSIONER BLOOM: Now, look at the 4 5 closing from New Mexico Citizens for Clean Air and Water, Dr. Neeper and Dr. Arthur, on Finding 13: 6 "Transcript contains no technical 7 8 testimony to demonstrate that the numerical values of the horizontal and vertical separations of pits 9 and tanks from water provide adequate protection." 10 11 COMMISSIONER BALCH: I have a note in my 12 pad that it was due to the fact that the original 13 siting criteria was also similarly arbitrarily decided. 14 15 So basically, the -- there was not a technical model of the sheath flow, and you could 16 have done hydrology and made a calculation of the 17 sheath flow. Nobody did that. 18 19 In that respect, there's no technical 20 testimony. However, there was testimony of 21 technical experts in those areas that said that that did not pose a risk and it was protected. 22 23 Again, that really depends on how much 24 value you put on the testimony of any particular 25 person.

Page 3157 COMMISSIONER BLOOM: Do we have any way 1 to -- I don't -- I'm not sure I understand what the 2 3 risk is because I didn't hear testimony to it. Ι 4 didn't see a model of it. What are the benefits? How many -- how 5 much oil or gas can be accessed because there is a 6 7 setback of 300 feet from the edge of a river versus 100-foot from the edge of the river? 8 9 COMMISSIONER BALCH: Well, if you go to the discussion of the pits -- and there was some 10 sidebar. And an example that was given was because 11 pits were lumped in with -- tanks were lumped in 12 with pits and the 50-foot depth flow of the tank, 13 14 and it disallowed the use of below-grade tanks in places where groundwater was shallower than 50 feet. 15 16 Because of that, and because they used 17 gravity drainage to operate their separators and storage, particularly in the northwest, that they 18 then would have to build up land so that they could 19 20 still have gravity drainage to an above-ground tank 21 instead of a below-grade tank. 22 So that was a particular example there. So it primarily becomes operational expense of force 23 24 of the use of a closed system. 25 COMMISSIONER BLOOM: That's vertical,

Page 3158 though. I'm thinking -- I'm asking about horizontal 1 2 here. I'm sorry. COMMISSIONER BALCH: No, it really came 3 down to the experts saying that -- that a release 4 would not reach the river before it was responded 5 to, even at 100 feet. They felt that the original 6 7 regulation was overly protective. COMMISSIONER BLOOM: What does it -- what 8 does it cost an operator if they, say, lease a 9 section or a half section from the state land 10 office, and the northern edge of it borders a river 11 and they have to be 300 feet south of that, and 12 that's not something they could -- you know could 13 14 measure? COMMISSIONER BALCH: If the economics 15 16 dictate that they would -- that they would prefer to 17 use a pit, then where the setback comes into play is it tells them where they can drill a well on the 18 site. And there may or may not be an appropriate 19 20 location that allows them to use that setback. So it closes down -- potentially could 21 22 close down locations to drilling at all or drilling in a more expensive way. That was the testimony 23 24 that was argued. That is what was argued by NMOGA 25 and others. So the risk is an unmitigated surface

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Page 3159 flow releasing the pit fluids into a streambed. 1 The other side, the cost is greater 2 operational expenses and possibly an elimination of 3 the possibility of drilling a particular site, 4 depending on topography and a number of other 5 6 factors: Access on where you can put a road, all 7 kinds of things like that. That was their whole argument, and it was really kind of based on the 8 economics. 9 10 And then the experts said that those newly defined limits were protective or equally 11 12 protective. 13 COMMISSIONER BLOOM: But I didn't see 14 Conoco or another company come in and say we had to use closed-loop systems because we couldn't get away 15 from -- we couldn't get out of the setback 16 requirement on the parcel we had, or -- you know, we 17 18 couldn't -- we couldn't go, you know, across the river and then drill it horizontally. 19 20 You know, it's hypotheticals to create a two-thirds reduction in distance to a river, or it 21 depends upon the watercourse. 22 23 CHAIRPERSON BAILEY: I think we need to bear in mind that we are only talking about this 24 25 reduction for the lower chloride fluids. That the

Page 3160 higher chloride fluids that have a higher potential 1 2 for contamination, if they are there, are not being changed. Those that act for the category of 3 4 other -- of higher chlorides -- will still remain at the 300-foot limitation. That the hundred-foot 5 would only apply to those drilling fluids that have 6 7 that reduced amount of chlorides. I think that is necessary to bear in mind, 8 that the higher potential for contamination of the 9 surface water is reduced by reducing the chlorides 10 that would be in that temporary pit. 11 COMMISSIONER BLOOM: The chlorides are 12 reduced over other pits, but then there are other 13 14 chemicals in the other waste in the pit as well. 15 COMMISSIONER BALCH: Well, there was extensive testimony -- I think there were 3103 or 16 3203 chemicals in Rule 17 that would have to be 17 followed. 18 Again, Mr. Arthur and Dr. Thomas -- and 19 then I think also -- I think there were other 20 21 ones -- their testimony was that you could 22 effectively boil that down to three constituents of concern: Chloride, which makes a great marker. 23 This -- Dr. Thomas testified that he didn't think 24 chloride was really that dangerous but it was a good 25

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Page 3161 marker of the TPH and the benzene. 1 2 So those are -- those are the things that the experts said you ought to be worried about, 3 because they pose the real risk to the environment, 4 public health, and fresh water. 5 6 We can -- we haven't talked yet about 7 closures, so we haven't gone into the TPH and benzene and all of that stuff. But basically, what 8 they said was those are the things you have to worry 9 about. And when you're talking about a release 10 from --11 12 COMMISSIONER BLOOM: I would agree with 13 that, that it's those three. 14 COMMISSIONER BALCH: So when you're 15 talking about a release from the pit that would flow across the surface of low chloride fluid, you are 16 17 primarily looking at drilling mud with potassium chloride. You would have, at most, traces of the 18 other two constituents, benzene and others. You 19 20 would not have significant amounts of benzene or 21 other hydrocarbons. 22 So in the context of their testimony, they 23 felt the -- that the remediation time, the response 24 time, would allow that reduced setback. 25 CHAIRPERSON BAILEY: Commissioner Bloom?

Page 3162 COMMISSIONER BLOOM: I mean, I'm not --1 I'm not -- I can't get there on the low chloride 2 I think the two-thirds reduction in setback 3 fluid. 4 between the pit, and if you use the term "watercourses," is just too much for the risk to 5 outweigh the benefits. I didn't hear testimony as 6 7 to what those benefits could be, particularly on the horizontal setbacks. 8 9 CHAIRPERSON BAILEY: So have the 10 deliberations enabled you to make any kind of agreement on either paragraphs A or B? 11 COMMISSIONER BLOOM: No. I would move to 12 keep those unchanged, as they are. 13 14 CHAIRPERSON BAILEY: Well, Commissioner Balch, I don't think we'll be able to reach your 15 16 desire to have total agreement on either the definition or --17 18 COMMISSIONER BALCH: You are going to make 19 me lose sleep. I hate unresolved things. 20 CHAIRPERSON BAILEY: I know. 21 COMMISSIONER BALCH: Okay. So maybe I'll just ask a question, out of curiosity. 22 23 So we have come to a conclusion, and we have a rule that we agree on 97 percent of 24 25 everything, and there's that 3 percent we don't

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Page 3163 1 agree on, what happens then? 2 CHAIRPERSON BAILEY: In the findings we 3 can say the majority of the commission agreed that, 4 and then list whatever. 5 COMMISSIONER BALCH: So point by point where the disagreement was? 6 7 CHAIRPERSON BAILEY: That's what we have done before, in the past. 8 9 COMMISSIONER BALCH: Okay. And then if we come up with a different standard that you are 10 comfortable with, are you going to sign it in the --11 COMMISSIONER BLOOM: Well, I think if it 12 13 said a majority I would sign, yes. 14 CHAIRPERSON BAILEY: Yes, because that is an accurate reflection of what our deliberations 15 16 were. 17 COMMISSIONER BALCH: So I'm not -- I absolutely respect your -- your opinion and your --18 19 if your conscience dictates that you can't, that you 20 can't reach the same conclusion as we do, we see the evidence differently, then it's okay if we disagree. 21 CHAIRPERSON BAILEY: That's what we have 22 done in the past, and that's what -- it's an option 23 24 for us today if we can't reach total agreement. 25 So at this point, before we break for

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Page 3164 lunch, what we can do is have a vote on the 1 definition for low chloride fluids. 2 Then we can have a vote on A(1) (a) and 3 4 (b) that has been extensively deliberated over 5 today. 6 COMMISSIONER BALCH: I have another 7 question, I quess. Because in a lot of the -- a lot of the process has been not only looking at the 8 intent for what was proposed, but also changing the 9 language to be more effective. 10 If we have to make a change to the 11 language in a section, certainly your input would be 12 valuable, regardless of whether you agree or not. 13 14 COMMISSIONER BLOOM: I think there are some things here that we might agree on, and further 15 on, too, in the section, there are other things that 16 I have some changes on. 17 So we may have to 18 COMMISSIONER BALCH: wordsmith, maybe, 1 and 2 a little bit anyway, or we 19 20 should at least look at the wording as a result of changes to other components, besides there was the 21 removal of the unconfined groundwater and things 22 23 like that. So things may have gotten jumbled up a little bit. 24 25 CHAIRPERSON BAILEY: Then let's do that

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Page 3165 now, so that we can have at least that settled 1 before we break for lunch. 2 Did you want to change the definition of 3 4 "low chloride fluids," which is found on page 2? Did you want to include the words "water-based 5 fluids" that contain 15,000? 6 7 COMMISSIONER BALCH: I think all fluids are water-based, in a sense, so it would be 8 9 redundant. 10 CHAIRPERSON BAILEY: That would eliminate the hydrocarbon-based fluids. 11 COMMISSIONER BLOOM: So then the issue is 12 having hydrocarbon-based fluids at 25 feet above 13 ground? 14 15 COMMISSIONER BALCH: I would agree with that addition. 16 CHAIRPERSON BAILEY: Okay. So the 17 definition for "low chloride fluids" means "fluids 18 that contain" -- means "water-based fluids that 19 20 contain." Is that what you would like to see? 21 COMMISSIONER BALCH: Yes. CHAIRPERSON BAILEY: Then --22 COMMISSIONER BALCH: I'll make a motion to 23 adopt -- a motion to adopt the definition of low 24 chloride fluids. 25

Page 3166 1 CHAIRPERSON BAILEY: I second. 2 All those in favor? COMMISSIONER BALCH: 3 Aye. 4 CHAIRPERSON BAILEY: Aye. 5 Those opposed? 6 COMMISSIONER BLOOM: Nay. 7 CHAIRPERSON BAILEY: Okay. 8 Motion passes 2 to 1. We can now move on to page 9 for siting 9 10 requirements. A (1), we have already removed the words 11 "or multi-well fluid management or below-grade 12 tank." 13 So we are only specifically looking at 14 temporary pit siting. 15 16 In (a) we have already removed 17 "unconfined." 18 We have the proposal to change the 50 feet to 25 feet. I believe we have agreed to 25 feet as 19 20 part of our discussion, so delete 50. COMMISSIONER BALCH: You can accept the 21 deletion of the below-grade tank? 22 23 CHAIRPERSON BAILEY: Uh-huh. 24 COMMISSIONER BLOOM: Well, I'll just indicate my objection to the change to 25 feet. 25

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	Page 3167
1	COMMISSIONER BALCH: We'll vote on it.
2	CHAIRPERSON BAILEY: We will vote, yes.
3	Otherwise, where and then we deleted
4	"unconfined" again.
5	"Otherwise, where groundwater is less than
6	50 feet below the bottom of the pit."
7	There was testimony to include, along with
8	"cavitate and coal bed methane well," to include
9	"underground balance, drilling, workover, or
10	completion operations."
11	COMMISSIONER BLOOM: IPANM's version.
12	CHAIRPERSON BAILEY: Yes, IPANM's version.
13	I personally do not support the inclusion
14	of "underground balance, drilling, workover, or
15	completion operations."
16	Commissioner Balch, do you remember that
17	discussion, and would you like to see those
18	included?
19	COMMISSIONER BALCH: Where would those
20	words go? I'm sorry?
21	CHAIRPERSON BAILEY: After "coal bed
22	methane well", or "underground balance, drilling,
23	workover, or completion operations."
24	COMMISSIONER BALCH: You know, I'm
25	comfortable with leaving it out and let that be

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, 1	Page 3168 dealt with through variance, if an operator were to
2	find themselves in that particular situation.
3	CHAIRPERSON BAILEY: Okay.
4	And the appropriate finds, based upon
5	the operator's demonstration, that will protect.
6	And then we have eliminated "unconfined" again.
7	And temporary pit. We need to retain the
8	"temporary" in that last line.
9	So does that read as we need to have it?
10	Now, we are leaving it out yes.
11	We're not deleting it, we are keeping it.
12	COMMISSIONER BALCH: Retaining it.
13	CHAIRPERSON BAILEY: Okay. Then going to
14	(b).
15	COMMISSIONER BALCH: Mr. Bloom, even
16	though we don't agree on the points, I definitely
17	appreciate your help with wordsmithing.
18	CHAIRPERSON BAILEY: Well, the OCD had
19	some suggested language for (b) that said "within
20	100 feet of any continuously flowing watercourse or
21	other significant watercourse or lakebed, sinkhole,
22	or playa lake measured from the ordinary high-water
23	mark."
24	COMMISSIONER BALCH: I would just like to
25	read the modification myself here.

Page 3169 COMMISSIONER BLOOM: I'm wondering if the 1 2 intention of the proponents was going to include continuously flowing watercourse, have been changing 3 that setback and not the setback for the rest of 4 5 that statement, which is -- that include such things as lakebed, sinkholes, and playa lake. 6 7 COMMISSIONER BALCH: I think if you look at Exhibit 3-6, that appears to be the intent. They 8 did not intend -- they only intended to change it 9 for watercourses, not to playas or sinkholes or 10 anything like that. 11 12 CHAIRPERSON BAILEY: Oh, okay. I can see where that confusion came from. 13 14 So we could just leave it as proposed, 15 then? 16 COMMISSIONER BALCH: I think so. 17 COMMISSIONER BLOOM: I think you might 18 have an extra "a" in there. 19 COMMISSIONER BALCH: Yeah. I don't think --20 21 COMMISSIONER BLOOM: After the word "any" 22 in line (b). 23 CHAIRPERSON BAILEY: Okay. We are not 24 deleting that area in green. 25 COMMISSIONER BLOOM: Is that under IPANM's

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Page 3170 1 proposal or... 2 CHAIRPERSON BAILEY: I'm not sure where that came from. 3 4 COMMISSIONER BALCH: Back on Table 368. That's where they actually proposed the change. 5 6 CHAIRPERSON BAILEY: Oh, okay. 7 COMMISSIONER BALCH: And this limits us to groundwater and watercourses, water wells, and 8 wetlands --9 10 CHAIRPERSON BAILEY: Right. COMMISSIONER BALCH: -- or low playa 11 12 chlorides only. So essentially, the only thing we are 13 14 doing is providing an exception for low chloride fluids to 100 feet instead of to 300 feet. 15 16 CHAIRPERSON BAILEY: Water-based, yes. 17 COMMISSIONER BALCH: Well, and that's in the definition. 18 19 CHAIRPERSON BAILEY: That's part of the definition, yes. 20 21 COMMISSIONER BLOOM: Now, the parentheses 22 there for the rest of that seems to differ a little 23 bit from what was set out in terms of variance or exceptions. 24 25 COMMISSIONER BALCH: We can probably

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Page 3171 delete any -- I think you can take out everything 1 after "unless," because the variance and exception 2 clauses cover the entire document. 3 4 And those -- both of those clauses have the statement in there of fresh water, public 5 6 health, and the environment. 7 CHAIRPERSON BAILEY: Yes, that can be taken out. 8 COMMISSIONER BALCH: That will save a 9 10 tree. COMMISSIONER BLOOM: In considering 11 exceptions and variances, you might want to discuss, 12 if we wish to include changes to setbacks, as a --13 14 as a variance or an exception. CHAIRPÉRSON BAILEY: I don't think we need 15 to go through the hearing of public comments and 16 everything else. I mean, is it to the gravity? Do 17 we see it as the gravity of ... 18 COMMISSIONER BLOOM: I think with water 19 20 being the precious resource that it is, would --21 would we not want an opportunity for the public to comment if somebody wanted to put a temporary pit at 22 23 50 feet from the side of a river, for example? 24 COMMISSIONER BALCH: I would -- I would support language that led to an interpretation of 25

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Page 3172 setback changes for low chloride fluids being left 1 2 at the level of an exception. And that would invite public comment and any involved parties. 3 But the other setbacks I think should be 4 left to a variance because they are greater, and 5 there may be more cases for -- you know, really, you 6 are at 299 feet. That might be a reasonable 7 8 variance that would be taken care of administratively. 9 But for the case of the low chloride 10 fluids where we are decreasing the setbacks, that 11 12 might be something that would be appropriately -- if 13 you're asking for less than that, then you probably 14 need to go to an exception. 15 CHAIRPERSON BAILEY: And you support that, 16 do you, Mr. Bloom? 17 COMMISSIONER BLOOM: So that the -- inside any distances that are set for low chloride fluids, 18 either it be a low chloride or other fluid, would 19 then rise to the level of an exception? I think 20 21 that would make sense. 22 COMMISSIONER BALCH: The reduced setbacks 23 that would -- the fluids -- would be an exception level. Other setbacks would be a variance level. 24 25 That is essentially what I'm trying to say.

	Page 3173
1	Remember, when we talked about variances
2	and exceptions, we wanted exceptions that were
3	clearly not administratively resolvable.
4	COMMISSIONER BLOOM: Yes. I think I could
5	come around on that, particularly because I would
6	hope that the staff at the OCD district office would
7	be sensitive to that, you know.
8	COMMISSIONER BALCH: This would require a
9	bit of wording
10	CHAIRPERSON BAILEY: We need to correct a
11	sentence, then, to indicate that
12	COMMISSIONER BALCH: At the pleasure of
13	the commissioner, I would like to check on that.
14	CHAIRPERSON BAILEY: Okay. Why don't we
15	take a lunch break and be back at 1:15.
16	Does that give you adequate time?
17	COMMISSIONER BALCH: Yes.
18	CHAIRPERSON BAILEY: Okay.
19	MR. SMITH: Before do you that, could I
20	just say a couple of things about the waste issue,
21	just so you are aware? And this, by no means,
22	resolves the issue that you-all were talking about.
23	There was a case from the New Mexico
24	Supreme Court in 1975. For the record, Rutter and
25	Wilbanks, 87 New Mexico 286.

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Page 3174 And the issue was raised with regard to 1 2 whether the commission's finding regarding waste was 3 sufficient to be upheld. It had to do with the non- -- with nonstandard proration units. 4 5 But the point is the commission found that having to drill a third well under certain 6 7 circumstances would create economic waste, and the Court held that the finding on economic waste was 8 sufficient to uphold the commission. 9 Now so you are aware, that was in '75. 10 As 11 nearly as I can tell, two years later the -- just a 12 second -- the Statutory Unitization Act was adopted. 13 And waste, there, is defined as -- in addition to the other definitions of waste -- shall include both 14 economic and physical waste resulting, or that could 15 reasonably be expected to result, from the 16 development and operation separately of tracts that 17 could best be developed and operated as a unit. 18 19 And when you put that together with the 20 Rutter case, I'm not entirely certain where that 21 leaves you with respect to the ability to use 22 economic waste broadly in a definition of waste. 23 I still believe in adopting regulations 24 that you can take into account the economics on the 25 industry. But I wanted to tell you that at least

Page 3175 1 waste, as economic waste, is, to some extent, 2 addressed. There may be better answers out there, but 3 I'm -- this is -- I think that we are looking at a 4 Law Review article. 5 COMMISSIONER BALCH: Well, in the 6 7 Continental case, that was decided in '71, so all of this is post. 8 9 COMMISSIONER BLOOM: What was the second case, Mark? 10 11 MR. SMITH: Rutter and Wilbanks, 87 12 New Mexico 286, 1975. 13 COMMISSIONER BALCH: In the '71 to '75 14 area, as well. 15 MR. SMITH: But I don't know how to fit 16 that in with later statutory adoption. So I'm not telling you that it's definitive. I'm just telling 17 you that economic waste, as waste, has been 18 addressed at least in that context. 19 20 CHAIRPERSON BAILEY: We will reconvene at 21 1:20. And then we will take a short break a few 22 23 minutes before 2:00 for a function upstairs that you-all are invited to. 24 25 So we will see you in an hour and 10

Page 3176 1 minutes. 2 (A recess was taken from 12:10 p.m. to 3 1:21 p.m.) 4 CHAIRPERSON BAILEY: We are back on the 5 record. We were discussing the need to insert some 6 7 sentences in 19.15.17.10.A (1) (a), and (b) to indicate that -- changes from the prescribed 8 9 proximity limitations. COMMISSIONER BALCH: Madam Chair? 10 CHAIRPERSON BAILEY: 11 Yes. COMMISSIONER BALCH: We were discussing 12 having the reduced setbacks for low chloride drum 13 pits having exception levels rather than variations. 14 15 I'm wondering if we should separate 16 temporary pits to low chloride and other, and then 17 define things separately so we can clearly state these are exception level, these are everything 18 else, by the -- that would be, as a result, a 19 variation level. 20 21 CHAIRPERSON BAILEY: That would be for paragraphs (a) and (b) and (d) and (f). Okay. 22 23 So I see where you're going with that. 24 COMMISSIONER BALCH: It just might be more 25 clear what is facing an exception.

Page 3177 Would you say your COMMISSIONER BLOOM: 1 recommendation again? 2 Well, we're talking 3 COMMISSIONER BALCH: about temporary pits, multi-well pits, and then 4 we'll talk about permanent pits after that. 5 There are some setback changes that we're 6 7 going to vote on for low chloride fluids. And we -immediately before we left, we had discussed that 8 changes -- that anybody seeking a difference from 9 that, those shorter setbacks, would need an 10 exception rather than a variance. 11 Yesterday, when we were talking about 12 13 exceptions and variances, we wanted to allow 14 variances to cover the entire document except for 15 where we explicitly pointed out an exception was 16 needed. It might be more clear if we separate low 17 chloride and regular drilling temporary pits so that we can just have one line that says these setbacks 18 are subject to exceptions if the change is sought, 19 rather than a variation. 20 COMMISSIONER BLOOM: Or perhaps we could 21 22 add language saying exceptions -- operator shall 23 seek an exception when seeking to locate a pit 24 inside distances set for low chloride fluids. COMMISSIONER BALCH: 25 That's true.

Page 3178 1 CHAIRPERSON BAILEY: And that can be a 2 sentence right up at the very beginning of (a), rather than having to ... 3 4 COMMISSIONER BLOOM: So even if the temporary pit didn't have low chloride fluids, it 5 6 would -- somebody would have to seek an exception --7 COMMISSIONER BALCH: Well, normally 8 when --9 COMMISSIONER BLOOM: -- if they want to go within 100 feet of a river or a watercourse. 10 11 COMMISSIONER BALCH: I guess maybe we would want to put in a clause, and that's where it 12 seems to go, in the things we've talked about, where 13 14 there is an explicit statement where you can have a variance, and I think we're going to remove those. 15 16 But they have them located at the bottom of the 17 section. 18 CHAIRPERSON BAILEY: So you are suggesting that we have a subparagraph (j) to deal with 19 20 exceptions and variances for ... 21 COMMISSIONER BALCH: That would probably 22 work. CHAIRPERSON BAILEY: Okay. So with that 23 24 in mind, let's just look at paragraph (a). 25 We have already agreed, and agreed to

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Page 3179 1 disagree, on paragraphs (a) and (b). 2 Then why don't we go ahead with (c), and 3 when we get down to (j), then we can craft that 4 language. 5 (c) has the recommendation of adding 6 "occupied" to a permanent residence, school, 7 hospital, institution, or church. 8 COMMISSIONER BLOOM: Well --CHAIRPERSON BAILEY: We wrestled with that 9 earlier, and I believe it was yesterday. 10 COMMISSIONER BALCH: Right. We didn't 11 12 want two crumbling adobe walls and a caved-in tin 13 roof to be a permanent residence necessarily. 14 CHAIRPERSON BAILEY: Exactly. COMMISSIONER BALCH: We also didn't want 15 an empty house to be unoccupied or be inferred that 16 it would always be unoccupied during the duration of 17 18 an operation. I believe that we talked about it in the 19 context of below-grade tanks. 20 I remember discussion over -- around this 21 word "occupied." 22 23 CHAIRPERSON BAILEY: Uh-huh. 24 COMMISSIONER BALCH: And I think the 25 reason they wanted to put "occupied" was because of

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Page 3180 the first case -- the first example I made of two 1 crumbling walls and a caved-in roof. 2 But it seems like common sense would 3 4 really tell you whether something was a permanent 5 residence or not. Now, I remember on the -- well, I'm not 6 7 sure that there's really -- common sense, I'm not sure there is a problem with taking out "occupied." 8 9 Somebody should be able to say this is a residence, this is not a residence. 10 11 COMMISSIONER BLOOM: Or we could --12 Chairman Bailey suggested if somebody moves back in it's occupied, and if someone were to go out and 13 14 look at a house and, you know, the lawn is neatly 15 kept but people are on vacation for a week, I think 16 they would intuit that it's still an occupied house. Perhaps we'll leave occupied and just leave it at 17 18 that. I don't know that that will --19 COMMISSIONER BALCH: That it's up to the 20 operator to determine whether it's occupied or not? 21 COMMISSIONER BLOOM: Yeah. And if the 22 person that's there gets upset then they could say, 23 well, yeah, this is an occupied house. And all they would have to show is a certificate of occupancy and 24 25 show that they spend time there.

Page 3181 The responsibility is 1 COMMISSIONER BALCH: on the operator, to stay within the confines --2 CHAIRPERSON BAILEY: I think that was the 3 4 crux of how we made our decision, was if somebody moves back in then they are in violation. 5 6 I gave the example of COMMISSIONER BALCH: 7 the school built next to a tavern which then had to close. 8 9 CHAIRPERSON BAILEY: Right. So then our decision would be to insert the word "occupied." So 10 we will accept that change. 11 12 Okay. Paragraph (d). The suggestion is to change the location next to a private, domestic 13 14 fresh water well or spring used by five households 15 or whatever. 16 So first, shall we look at whether or not we're going to consider shortening that distance 17 from a temporary pit to a private fresh water well 18 or a spring used by -- and Dr. Neeper had some 19 comments that a spring shouldn't have to be used by 20 less than five households. 21 22 COMMISSIONER BALCH: I think a spring is a spring. 23 24 CHAIRPERSON BAILEY: That's right. 25 COMMISSIONER BALCH: You want to preserve

1 its usability.

2 On the other hand, I did want to point out in the record -- again, this is Mr. Arthur. I just 3 wanted to -- this really struck me while I was 4 5 rereading it last night. And it's around line -- I'm sorry, 6 7 page 567, lines 9 through 16. He's talking about New Mexico, that the 8 setbacks for a septic system of 4 feet above 9 groundwater and 100 feet from -- and 100 feet 10 vertically -- or horizontally. 11 12 CHAIRPERSON BAILEY: Horizontally. COMMISSIONER BALCH: Which is fairly 13 14 striking, because Mr. - -- Dr. Thomas said that 15 septic waste was way more hazardous than was typically found in a pit at all, much less a low 16 chloride fluid pit. 17 18 So I think that I obviously don't advocate going to 4 feet above groundwater, but the hundred 19 is going to be protected for the same reasons we 20 talked about at great length this morning for a low 21 22 chloride fluid. 23 COMMISSIONER BLOOM: I don't know that I would argue septic tanks, because that has such an 24 25 effect on groundwater across the state that we are

Page 3183 1 still grappling with how to deal with that. 2 COMMISSIONER BALCH: Well, we are talking about the level of law and the regulation, the bar. 3 He was saying that he didn't understand it either, 4 that 4 feet was just simply not far enough, but 400 5 6 feet --7 COMMISSIONER BLOOM: No, too much contamination. 8 9 COMMISSIONER BALCH: Yes. This one is significant because they also 10 changed the setbacks for other wells to 300 feet 11 12 from 500 feet. 13 CHAIRPERSON BAILEY: Yes. Or a thousand 14 feet, for (d) being changed from a thousand to 300. 15 COMMISSIONER BALCH: Okay. That's 16 misrepresented in Table 3-6 from NMOGA's exhibit. 17 The fresh water well current rule is a thousand feet 18 from a well. 19 CHAIRPERSON BAILEY: I'm looking for it. 20 Siting requirements, 10 (d). The current requirements, within 500 feet of a private, domestic 21 fresh water well or spring used by less than five 22 23 households for domestic --24 COMMISSIONER BALCH: Okay. 25 CHAIRPERSON BAILEY: -- or within a

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Page 3184 thousand feet of any other fresh water well or 1 2 spring in existence at the time of the initial application. 3 COMMISSIONER BLOOM: Can I ask why we 4 5 wouldn't care about a spring used by more than five households? 6 7 Oh, but we do. CHAIRPERSON BAILEY: 8 COMMISSIONER BLOOM: I quess I don't 9 understand why it was... Why it was drafted 10 CHAIRPERSON BAILEY: that way? Probably because during the heat of the 11 12 moment. 13 COMMISSIONER BLOOM: Right. Okay. 14 CHAIRPERSON BAILEY: So yes, whatever we 15 do we'll need to change the location of the word "spring" so that it's not being modified by less 16 17 than five households. 18 COMMISSIONER BALCH: Now remember, this is 19 for the operational phase. This is while the 20 liquids are there temporarily. 21 CHAIRPERSON BAILEY: Uh-huh. 22 COMMISSIONER BALCH: You are less concerned, I think, because of response time, spill 23 24 rule, and mitigation. With it reaching groundwater, 25 we are worried about an overland impact from the pit

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to these features. 1

2 CHAIRPERSON BAILEY: The suggested changes 3 reflect the same footages as in paragraph (b) above. Because in (b) above, most of us agreed to 100 feet 4 between the pit and the continuously flowing 5 watercourse, and so the difference between a 6 continuously flowing watercourse and a private, 7 domestic fresh water well. 8 9 COMMISSIONER BALCH: That would be more protected. 10 CHAIRPERSON BAILEY: Right. 11 12 COMMISSIONER BALCH: Because it's subsurface. 13 14 CHAIRPERSON BAILEY: Right. COMMISSIONER BALCH: So I'm comfortable 15 with the change as presented by, now, NMOGA, for low 16 17 chloride fluids only. Now, the other change is to 300 feet 18 19 for --20 CHAIRPERSON BAILEY: Any other fresh water 21 well or spring. COMMISSIONER BALCH: Other -- no, for 22 other drilling pits where you didn't have low 23 chloride fluids, you could go to 300 instead of 500. 24 According to our table, the text there --25

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I'm not sure if that adequately represents the
 table.

3 CHAIRPERSON BAILEY: Yes. I think the 4 text reflects that higher chloride pits could be 5 within 300 feet.

COMMISSIONER BALCH: Okay. And that is 6 7 what their Table 3-6 shows. And I think 300 feet, even for higher chloride fluids, is still going to 8 be more protective for the same reasons that we 9 10 discussed for the low chloride fluids, in that you 11 have a maximum period of time at which the flow can 12 be occurring, and the response time and mitigation under the spill rule would repair the damage before 13 it had an impact. 14

I would not be comfortable when we had the 16 100 feet, but 300 feet to 500 would be reasonable. 17 CHAIRPERSON BAILEY: No, it's a thousand 18 right now. It's a thousand feet of any other fresh 19 water well or spring.

The 500 feet is confined to a fresh water well or spring used by less than five households. So there is a family use of that well. It is currently at 500 feet.

The thousand feet would be for a well that's used by more than five, as currently. Page 3186

Page 3187 COMMISSIONER BALCH: That would include 1 2 municipal oil well fields? 3 CHAIRPERSON BAILEY: No, that --COMMISSIONER BALCH: Water well fields? 4 5 CHAIRPERSON BAILEY: -- that's a separate 6 paragraph. 7 COMMISSIONER BALCH: Okay. CHAIRPERSON BAILEY: So if we have a 8 9 community using one water well, a temporary pit, as it stands, as the current rule says, has to be 10 outside of a thousand feet. 11 12 COMMISSIONER BALCH: Right. 13 CHAIRPERSON BAILEY: The drawdown for a 14 well used by more than five households would be a 15 factor in any kind of below-ground plume that might arise. 16 17 COMMISSIONER BALCH: Which would be more likely to occur in on-site disposal rather than in 18 19 the operational phase where impacts would be temporary surface-related or near-surface-related 20 21 and then mitigated quickly. 22 CHAIRPERSON BAILEY: We would have more 23 people impacted. 24 COMMISSIONER BALCH: The risk is -- the 25 risk is increased because of the number of people

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Page 3188 involved --1 2 CHAIRPERSON BAILEY: Right. COMMISSIONER BALCH: -- rather than the 3 risk of the flow. 4 CHAIRPERSON BAILEY: 5 Right. COMMISSIONER BALCH: I can understand 6 7 that. What is your opinion on it? 8 CHAIRPERSON BAILEY: My opinion is that 9 for low chloride fluids we can lower it to 100 feet, 10 the same as we have for a continuously flowing 11 12 watercourse. And -- and for -- I will stop it right 13 there. But I am not in favor for higher level 14 15 chloride fluids to be in temporary pits within 300 feet of a water well used by any number of 16 17 people or a spring. So I'm not in favor of the way this 18 particular paragraph is written. Because the way 19 20 this is written, it allows high chloride fluids to 21 be within 300 feet of a community water well or a 22 spring. 23 COMMISSIONER BALCH: I think I would have 24 to agree with you, because of the greater number of people that could be affected. Even though the risk 25

Page 3189 is still small, the reward is diminished by the 1 2 number of people that could be impacted. CHAIRPERSON BAILEY: So we could change 3 the location of the phrase where only low chloride 4 fluids are used and put it towards the end of that 5 sentence, making it modify both the private, 6 domestic water well and spring used for domestic or 7 8 stock watering purposes and any other fresh water well or spring. 9 Do you see what I'm saying? 10 11 COMMISSIONER BALCH: Yes. 12 CHAIRPERSON BAILEY: So this paragraph 13 would apply -- the changes that we make in this paragraph would only be allowed for the low chloride 14 fluids. 15 COMMISSIONER BALCH: That would make 16 sense. And we should get some wording up there and 17 look at it. 18 19 CHAIRPERSON BAILEY: Okay. 20 Kim, if you would highlight "where only 21 low chloride fluids are used." COMMISSIONER BALCH: That would be moved 22 to the end of that paragraph? 23 24 CHAIRPERSON BAILEY: Yes, to the very end, or at the very beginning. 25

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Page 3190 COMMISSIONER BALCH: I think it's more 1 clear to lay out what the limits are for most cases 2 and then point out the exception. 3 4 CHAIRPERSON BAILEY: Okay. So put it to 5 the very end of that sentence. 6 And now we can --7 MS. ROMERO: Do you want to take out the 500? 8 9 CHAIRPERSON BAILEY: I believe so, yes. 10 COMMISSIONER BALCH: No. 11 CHAIRPERSON BAILEY: No? COMMISSIONER BALCH: I thought the top 12 part was going to be referring to the other fluids. 13 So we would want to leave the existing standard for 14 15 other, which could be higher chloride fluids. 16 CHAIRPERSON BAILEY: Well, what I was 17 talking about was allowing 100 feet in the first instance. 18 19 COMMISSIONER BALCH: All right. Okay. 20 Yes. 21 CHAIRPERSON BAILEY: So go ahead and remove "500." Go ahead and remove "by less than 22 five households." 2.3 24 No. No, put it back. That may not be 25 correct.

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Page 3191 Otherwise, within 300 feet -- yes. Go 1 ahead and subtract the thousand feet. Subtract the 2 thousand. 3 4 So now we need to put in the footages for 5 other concentrations. 6 COMMISSIONER BALCH: Okay. So we want 7 this to go "within 100 feet of private, domestic fresh water well or spring used by less than five 8 9 households for domestic or stock watering purposes; otherwise, within 300 feet of any other fresh water 10 well or spring in existence at the time of the 11 initial application where only low chloride fluids 12 are used." 13 CHAIRPERSON BAILEY: I still think that 14 15 that phrase needs to go at the very beginning. COMMISSIONER BALCH: I think so, too, the 16 way it's written out. 17 18 CHAIRPERSON BAILEY: So that's at the 19 beginning of that paragraph. 20 COMMISSIONER BALCH: Must you say "a pit must be located greater than 100 feet from"? 21 CHAIRPERSON BAILEY: We don't want it 22 confined to the --23 24 COMMISSIONER BALCH: Probably not. CHAIRPERSON BAILEY: That defeats the 25

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1 purpose here.

2 COMMISSIONER BALCH: The temporary pit, 3 because we are talking about temporary pits. 4 CHAIRPERSON BAILEY: Right. 5 COMMISSIONER BALCH: The temporary pit. 6 CHAIRPERSON BAILEY: Where only low 7 chloride fluids are used, comma, beyond the hundred feet of the... 8 9 COMMISSIONER BALCH: Just take out the "within." 10 11 CHAIRPERSON BAILEY: Yes. 12 COMMISSIONER BALCH: Now in the same paragraph, do we describe the other situation or do 13 we make a new paragraph for the other situation? 14 15 CHAIRPERSON BAILEY: Well, we're getting it all confused. Because if you look to the top, 16 the opening of this entire thing is "Except as 17 otherwise provided in 19.15.17 NMAC, an operator 18 19 shall not locate a temporary pit." 20 COMMISSIONER BLOOM: You actually want it to say "within." 21 22 CHAIRPERSON BAILEY: Right. COMMISSIONER BALCH: "Shall not within." 23 24 Okay. 25 CHAIRPERSON BAILEY: Yes. So go back to

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Page 3193 "within." 1 COMMISSIONER BALCH: So then at the end of 2 this paragraph you say "otherwise," and then we have 3 4 the language for the existing Rule 17. 5 CHAIRPERSON BAILEY: Uh-huh. 6 MR. SMITH: If you want the 300 feet to 7 apply to low chlorides, I think you want to change "otherwise" to "and," unless I misunderstand what 8 9 you're up to here. 10 CHAIRPERSON BAILEY: You're correct. 11 That's correct. The "otherwise" can go at the end of that sentence to indicate --12 COMMISSIONER BLOOM: What follows. 13 14 CHAIRPERSON BAILEY: -- what follows, yes. COMMISSIONER BALCH: Wouldn't it be "or"? 15 You are talking about two separate sentences. 16 17 CHAIRPERSON BAILEY: Okay. So "or." COMMISSIONER BALCH: Then there needs to 18 19 be an "otherwise" at the end of it. 20 CHAIRPERSON BAILEY: Right. A period, and 21 then a new sentence. "Otherwise..." 22 COMMISSIONER BALCH: But then what was 23 the -- 300 feet. 24 CHAIRPERSON BAILEY: 500 was the original. COMMISSIONER BALCH: Of a domestic fresh 25

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Page 3194 1 water. CHAIRPERSON BAILEY: 2 Yes. COMMISSIONER BALCH: Okay. 500 feet. 3 4 CHAIRPERSON BAILEY: And then you can copy everything after 100 up above there. 5 COMMISSIONER BALCH: 6 In the same --7 CHAIRPERSON BAILEY: No, no, in the same paragraph we are working on. Copy everything above 8 9 there. 10 COMMISSIONER BALCH: Down to the period? CHAIRPERSON BAILEY: Uh-huh. And put it 11 after the 500 feet. 12 And then change the 300 to a thousand. 13 14 So paragraph (d) will read: "where only low chloride fluids are used within 100 feet of a 15 16 private, domestic fresh water well or spring used by 17 less than five households for domestic or stock watering purposes, or within 300 feet of any other 18 fresh water well or spring in existence at the time 19 of the initial application. Otherwise, within 20 21 500 feet of a private, domestic fresh water well or spring used by less than five households for 22 23 domestic or stock watering purposes, or within a thousand feet of any other fresh water well or 24 spring in existence at the time of the initial 25

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Page 3195 application." 1 2 COMMISSIONER BALCH: It looks fine to me. I wonder if "where 3 COMMISSIONER BLOOM: 4 only low chloride fluids are used" should go towards the end. Because right now it reads an operator 5 6 shall not locate a temporary pit where only low 7 chloride fluids are used within 100 feet of a... COMMISSIONER BALCH: We had it at the end 8 of --9 I think that makes 10 COMMISSIONER BLOOM: Because another reading: 11 more sense. "An operator shall not locate a temporary pit within 100 feet of 12 a private, domestic fresh water well or spring," 13 et cetera, et cetera, "or within 300 feet" --14 perhaps you could put at the end "when it's a low 15 chloride fluid pit," or something like that. 16 17 COMMISSIONER BALCH: I think if you put it 18 at the end you run the risk of someone reading half of the rule thinking it was 100 to 300 for 19 20 everything. COMMISSIONER BLOOM: Right. And I hear 21 it -- I hear you on that, too. 22 COMMISSIONER BALCH: So this is a 23 qualifier that immediately affects the first two 24 criteria. And then you have a case which is 25

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Page 3196 everything else, where you have a different new 1 criteria. 2 Moving the low chloride fluids to the end 3 4 of that first sentence would be equivalent to moving the "otherwise" to the end of the second sentence, 5 6 perhaps. 7 I think it makes more sense the way it's 8 written now. CHAIRPERSON BAILEY: As long as we are 9 sure that that comma after "used" stays there, 10 because that's the important grammatical... 11 12 COMMISSIONER BLOOM: Yeah. It should probably work. I don't know that there's a better 13 14 way. CHAIRPERSON BAILEY: Yeah. 15 16 COMMISSIONER BALCH: Not without turning it into several subsections. 17 18 MR. SMITH: Well, you could use romanettes if you want it to be clearer. You could put a 19 romanette one before the first occurrence of within, 20 21 and then you could put a romanette two in front of the next occurrence of within, and I think that 22 23 would make it clearer that your low chloride 24 modifier would apply to both parts. 25 CHAIRPERSON BAILEY: If you would help Kim

Page 3197 with that. 1 COMMISSIONER BLOOM: It does clear it up a 2 little bit. 3 Thank you. CHAIRPERSON BAILEY: Commissioner Bloom, 4 5 you did not have much to say when we were 6 manipulating that paragraph. 7 Do you have any comments on allowing low chloride fluids to be closer for private, domestic 8 9 water wells or springs? 10 COMMISSIONER BLOOM: I'll just note my opposition to the inclusion of low chloride fluids 11 in general. 12 So... 13 CHAIRPERSON BAILEY: Okay. Then we can go 14 on to paragraph (e), which has to do with incorporated municipal boundaries or within the 15 defined municipal wellhead protection area, which is 16 a change from the current fresh water well field, 17 which says that there is a definition for wellhead 18 protection areas in current OCD regulations. 19 20 COMMISSIONER BALCH: 15.2.7. 21 CHAIRPERSON BAILEY: Or covered under a municipal ordinance adopted pursuant to statutory 22 23 guidance, unless the municipality specifically 24 approves. 25 COMMISSIONER BALCH: I think the wellhead

Page 3198 protection area and then the defined statute is 1 2 better than the fresh water well field. 3 CHAIRPERSON BAILEY: I agree. 4 COMMISSIONER BLOOM: Are we citing the correct section of the NMAC? 5 CHAIRPERSON BAILEY: I can double-check 6 for definitions. 15.2.7. 7 We do have a wellhead protection area 8 defined in 15.2.7. 9 10 COMMISSIONER BALCH: What's that definition? 11 CHAIRPERSON BAILEY: "A wellhead 12 13 protection area means the area within 200 horizontal 14 feet of a private, domestic fresh water well or spring used by less than five households for 15 16 domestic or stock watering purposes, or within a thousand horizontal feet of any other fresh water 17 well or spring. 18 "Wellhead protection area does not include 19 20 areas around water wells drilled after an existing oil or gas waste storage treatment or disposal site 21 was established." 22 So the limitations for a wellhead 23 24 protection area are 200 horizontal feet for a 25 private, domestic well.

Page 3199 COMMISSIONER BALCH: And that's from my --1 2 when I'm jogging around Socorro, these areas are fenced, the wellheads that are within a municipal 3 4 boundary. 5 COMMISSIONER BLOOM: I just might ask if 6 we have introduced a contradiction between (d) and 7 (e). COMMISSIONER BALCH: The 100 versus the 8 200? 9 10 COMMISSIONER BLOOM: Yes. COMMISSIONER BALCH: Well, I think (e) 11 specifically addresses municipal water sources, 12 whereas (d) reflects sources that are not 13 14 necessarily controlled by a municipality. 15 CHAIRPERSON BAILEY: Except wellhead 16 protection area also does address well or spring used by less than five households, the same as right 17 18 here. 19 COMMISSIONER BALCH: I think to be 20 consistent we have no choice but to change that 100 21 feet to 200 feet. 22 CHAIRPERSON BAILEY: I think that we do 23 need to do that. 24 That is the first romanette. Then we are 25 changing it.

Page 3200 Okay. For wellhead protection areas we 1 are keeping the 1,000 feet for higher chloride. 2 3 So is there consensus for (e), the way it is written now? 4 COMMISSIONER BALCH: I think so. 5 COMMISSIONER BLOOM: 6 Yes. 7 COMMISSIONER BALCH: It points to the relevant statute. 8 CHAIRPERSON BAILEY: Yes. 9 MR. SMITH: I would like to raise an 10 issue, to make sure that there isn't any confusion 11 12 here. 13 The phrase covered under municipal ordinance under 3-27-3, what do you-all perceive 14 15 that to modify? Because it was modifying fresh water well field. And if that's taken out --16 17 COMMISSIONER BALCH: Wellhead protection 18 area. 19 MR. SMITH: Okay. So... 20 COMMISSIONER BALCH: As defined by the 21 statute. 22 MR. SMITH: As defined by the rule, you 23 mean? 24 COMMISSIONER BALCH: 15.2.7, yes. 25 COMMISSIONER BLOOM: That's defined by and

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1 then covered by.

2 MR. SMITH: Okay. So you are talking about within boundaries or defined municipal 3 wellhead protection area, as defined by -- and then 4 you're talking about the wellhead protection area 5 being covered under the municipal ordinance? 6 COMMISSIONER BALCH: So the "covered under 7 municipal ordinance" may not necessarily be 8 necessary if we already have that in the definition 9. of NMAC 15.2.7? 10 MR. SMITH: Well, is it already in there? 11 12 I'm just -- I'm looking at 3-27-3. And what it says "For the purpose of acquiring, maintaining, 13 is: contracting for, condemning or protecting its water 14 15 facilities and water from pollution. "The jurisdiction of the municipality 16 17 extends within and without its boundary to: "1, all territory occupied by the water 18 19 facilities. "2, all reservoirs, streams, and other 20 21 sources supplying the reservoirs and streams. "And, 3, and five miles above the point 22 from which the water is taken." 23 24 CHAIRPERSON BAILEY: I think we need to keep that thought in mind. But it's now 2:00, and 25

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Page 3202 Florene needs to go upstairs along with the rest of 1 2 us. So we will simply take a break until 2:30. 3 And you are all invited to go upstairs for a 4 celebration commemorating or honoring Florene for 5 her 50-year anniversary with the OCD. 6 (A recess was taken from 1:58 p.m. to 2:40 7 p.m.) 8 9 CHAIRPERSON BAILEY: We are going back on the record. 10 When we took our break we had just 11 12 finished discussing definitions of municipal 13 wellhead protection areas. I want to point out that the OCD 14 15 definition that is referenced by 19.15.2.7 is for a 16 wellhead protection area not a municipal wellhead protection area. 15 -- 19.15.2.7 does not define 17 municipal wellhead protection areas. 18 So I think it is important that we delete 19 that word "municipal" referenced by that citation. 20 21 COMMISSIONER BALCH: So it would be 22 covered under an ordinance pursuant to? 23 CHAIRPERSON BAILEY: So it would read 24 "within incorporated municipal boundaries or within 25 a defined wellhead protection area, as defined."

Page 3203 Do you have comments on that? 1 2 COMMISSIONER BLOOM: I think that sounds 3 appropriate. 4 COMMISSIONER BALCH: Okay. 5 CHAIRPERSON BAILEY: Okay. So --Well, now --COMMISSIONER BALCH: 6 7 COMMISSIONER BLOOM: Because that NMAC mentions municipal, right? 8 9 CHAIRPERSON BAILEY: No. That NMAC does not mention municipal, which is why I believe it 10 11 needs to be deleted at that point, not in the line 12 above. COMMISSIONER BALCH: And then the next 13 14 sentence after that comma, we were talking about municipal. 15 16 MR. SMITH: Now wellhead protection area, just to get a size on it, is what, within 200 17 horizontal feet of water -- paraphrasing, of course. 18 Okay. 19 20 So that's the 200 and 1,000, basically the 21 same sort of reference you have up here using a well or a spring, right, for five households? 22 CHAIRPERSON BAILEY: Yes. 23 24 MR. SMITH: Okay. Now, my concern is only 25 with how that relates to Section 3-27-3 in the

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Page 3204 1 statutes. CHAIRPERSON BAILEY: Which would apply 2 only to municipal. 3 COMMISSIONER BALCH: Well, I think a 4 5 municipal ordinance would be something that would be put into place by that city. I'm not sure how --6 7 The way it read before, you MR. SMITH: couldn't have -- what is this, a temporary pit 8 you're dealing with here? 9 CHAIRPERSON BAILEY: Yes. 10 11 MR. SMITH: You couldn't have a temporary 12 pit within incorporated municipal boundaries or 13 within a defined municipal --14 CHAIRPERSON BAILEY: Fresh water well field. 15 MR. SMITH: -- fresh water well field 16 covered under 3-27-3. 17 18 The 3-27-3 looks, to me, like it's a jurisdictional statute for a municipality. 19 20 COMMISSIONER BALCH: So does that mean if 21 you fall within their jurisdiction you have to 22 have -- take that agreement, right? 23 CHAIRPERSON BAILEY: Well, the problem is we should not be incorporating, as defined by NMAC, 24 25 19.15.2.7, if we're talking about a municipal

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wellhead protection area. Because that citation
 does not define a municipal wellhead protection
 area.

4 MR. SMITH: Well, I don't think there's a 5 municipal wellhead protection area defined in that 6 statute either.

What it says is, originally, municipal 7 fresh water well field. And I quess the question is 8 whether a fresh water well field is equivalent to a 9 wellhead protection area or -- I mean as I read this 10 now, the way it is, you could put a pit within a 11 12 fresh water well field covered by this particular 13 statute if it wasn't within a wellhead protection 14 area.

15 And I have to tell you, I don't know what that means, other grammatically -- other than 16 grammatically. But what my concern is, are you 17 doing something here that will allow -- well, is 18 wellhead protection area a smaller area than fresh 19 water well field? And if it is, then I think that 20 21 you are reducing the amount of protection to the 22 municipality. And I don't know that I have a real 23 complaint with that, it's just whether it's --24 CHAIRPERSON BAILEY: Inadvertent 25 consequence.

Page 3206 1 MR. SMITH: Yes. I guess I don't know 2 COMMISSIONER BALCH: 3 anything about this, except for that even in the 4 city the size of Socorro, 8,000 people, their 5 wellhead production area is defined. When I jog 6 past wells they have fences and signs. 7 CHAIRPERSON BAILEY: The other alternative 8 is not to incorporate any changes at all and leave it as it has been in the current rule. 9 MR. SMITH: I'm afraid I don't -- I mean, 10 I don't know the consequences of that in terms of... 11 COMMISSIONER BALCH: There wasn't a lot of 12 testimony about this particular ... 13 14 CHAIRPERSON BAILEY: To justify that change. 15 16 COMMISSIONER BALCH: I don't recall. There may be something in the record that addressed 17 this, but I don't think there was. I think it was 18 19 really more of an approach -- and if we are going to 20 run afoul of the regulations, we may want to be 21 fairly broad. That way they have to go to the 22 appropriate statute for guidance. 23 CHAIRPERSON BAILEY: Right. 24 MR. SMITH: Well, I want to hasten to add, now, I'm not telling you you are going to run afoul 25

Page 3207 of the statute. I'm just trying to figure out 1 whether you are or not. And I don't know the answer 2 to that. 3 COMMISSIONER BALCH: Well, I don't know if 4 there would be a fresh water well field that 5 wouldn't be part of a wellhead protection area. 6 Τf 7 there was, maybe you would want to have the ability to go back. Say you got down to a very small city 8 9 of a couple hundred people. And there may be a city that size, I don't know. 10 CHAIRPERSON BAILEY: I suggest that we not 11 incorporate the suggested changes and maintain the 12 current language as it's written. 13 That would be fine. 14 COMMISSIONER BLOOM: 15 I'll agree, if that's COMMISSIONER BALCH: the consensus at this point. 16 17 CHAIRPERSON BAILEY: Okay. COMMISSIONER BALCH: Since there wasn't a 18 lot of testimony about this. 19 20 COMMISSIONER BLOOM: It hasn't seemed to 21 land in anyones lap as a major issue. CHAIRPERSON BAILEY: I have not heard of 22 any problems connected --23 24 COMMISSIONER BALCH: I don't think it changes anything in application. Because I think in 25

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Page 3208 application, to discover if you are within one of . 1 2 those you have to contact a municipality that it's close to. I don't think there's -- there's no data 3 4 out there without direct contact. So... CHAIRPERSON BAILEY: So for all of 5 6 paragraph (e), we'll reject all suggested changes. 7 And now we can go to paragraph (f), which has to do with 100 feet of a wetland where only low 8 chloride fluids are used; otherwise, within 300 feet 9 of a wetland. 10 Dr. Buchanan, in his rebuttal testimony, 11 made the statement that wet areas -- and I'm 12 paraphrasing, because I don't have his words in 13 14 front of me. And maybe I've misinterpreted them. 15 That wet areas need protection as far as 16 plants are concerned. 17 COMMISSIONER BLOOM: Because you get 18 saturated flow and velocities. 19 CHAIRPERSON BAILEY: Because of the 20 saturated flow. COMMISSIONER BALCH: And I think, you 21 know, in that same part of his rebuttal testimony, I 22 asked him a direct question regarding that issue. 23 24 And the response was, if you were that close to a wetland, you would probably already have 25

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Page 3209 1 a shallower water table than is allowed, so it's not 2 really an issue. 3 CHAIRPERSON BAILEY: So the question is: Do we want to minimize or change the distance from a 4 5 temporary pit to a wetland? If there are no chlorides, to establish 100 feet; if high chlorides, 6 to establish 300 feet? 7 8 COMMISSIONER BALCH: Now, these are 9 operational concerns. So the risk argument is that you would mitigate before it arrived at it. 10 But I think Dr. Buchanan's statement that 11 if you were that close to a wetland -- and for that 12 13 matter, I think we were talking about rivers -- that 14 you would probably already be eliminated because of 15 the depth of groundwater requirement. 16 And if the depth to groundwater was not an 17 issue, that would probably mean that that particular 18 wetland or stream would not be a significant watercourse. It would be a small or self-contained 19 or perched. 20 21 Now, I am paraphrasing there. That's not what he said. 22 23 CHAIRPERSON BAILEY: No, but that's your 24 interpretation of what he said. 25 COMMISSIONER BALCH: That's my

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Page 3210 interpretation. So basically, he wasn't concerned 1 2 about the siting criteria here, because he felt that if you were close enough to endanger a wetland or a 3 4 river, then you would already be too shallow as far as the water table, and you would not be able to 5 site it there anyway. 6 7 CHAIRPERSON BAILEY: Within the 25 feet? COMMISSIONER BALCH: The 25 feet vertical, 8 9 yes. So I could think of 10 COMMISSIONER BLOOM: areas where you would have bluffs up above, wetlands 11 down below a river or a lake, so you might be above 12 groundwater but still be in proximity to wetlands. 13 14 COMMISSIONER BALCH: Right. The risk standard that was presented to us was the overland 15 flow. This is for temporary pits. When we talk 16 17 about closure or tanks, we have a different 18 conversation, or anything that's subsurface. But for overland, basically all of these 19 20 experts that have been presented said that the 21 100-foot distance, with response time and mitigation, would not allow that to occur. 22 23 Now if you have a situation where you are 24 near a river, the way the water table works is as 25 you go away from the river, your water table slopes

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Page 3211 So close to the river your water table is at 1 down. the level of the river. And as you get away from 2 3 it, it goes down. Dr. Buchanan's comment, as I recall it, 4 5 was that if you were within 100 feet of the river, if it was a significant place on a river, where 6 there would be a higher level of risk, then you 7 would already -- you would not be able to place it 8 there because you would already be within 25 feet of 9 10 the water table. And remember, we are talking about low 11 12 chloride fluids. So 50 would remain for everything 13 else as it is. 14 CHAIRPERSON BAILEY: 500? COMMISSIONER BALCH: 15 Yes. Well, 500. 16 Now, they're changing CHAIRPERSON BAILEY: 17 it to 300. 18 COMMISSIONER BALCH: Well, they're requesting a change to 300. 19 CHAIRPERSON BAILEY: Uh-huh. 20 21 COMMISSIONER BALCH: Now on the other 22 hand, a wetland almost -- well, there's a couple of kinds of wetlands I could think of. You have a kind 23 that occur along rivers, and it would be sort of 24 25 tangential to the flow path.

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Page 3212 And then you might have an isolated 1 2 wetland. An isolated wetland would have -- it would 3 be a greater risk to that if there was an exposure, then, to something that was on the side of a river. 4 So I quess I really don't know. But that 5 is the testimony that was presented to us. 6 CHAIRPERSON BAILEY: And in -- for the 7 sake of consistency, if we have agreed to 100 feet 8 to a continuously flowing watercourse, what is the 9 difference -- and why shouldn't we allow 100 feet of 10 a wetland? 11 12 COMMISSIONER BALCH: Basically, why would 13 one be protected and the other not? 14 CHAIRPERSON BAILEY: Exactly. COMMISSIONER BALCH: So I would -- I would 15 accept the change in the language for the case of 16 low chloride fluids only. 17 And then again, with the caveat at the end 18 that an exception rather than a variation would have 19 to be sought if you were desiring to go under that 20 21 limit. 22 CHAIRPERSON BAILEY: And along that same vein, we have accepted 300 feet distance from a 23 continuously flowing watercourse for high chloride. 24 COMMISSIONER BALCH: That would be 25

Page 3213 consistent. 1 2 CHAIRPERSON BAILEY: That would be consistent if we accepted 300 feet for a wetland for 3 high chloride fluids. 4 COMMISSIONER BALCH: And this would refer 5 back to the citations I gave earlier about the risk 6 7 and response. Do you want me to give those to you again, 8 for the record? 9 MR. SMITH: No, that's -- that's fine. 10 I'll find them. 11 12 COMMISSIONER BALCH: And the rest of the 13 changes in (g) there, I think, are just because they had temporary and multi-well, and then the 14 15 below-grade tanks. So we probably want to keep the "temporary" and remove the "below-grade tank" in 16 (q). 17 CHAIRPERSON BAILEY: Okay. So we have 18 19 already agreed on (f) or not? 20 COMMISSIONER BALCH: To the extent that we 21 are going to agree? 22 COMMISSIONER BLOOM: I think so. I would 23 lean towards keeping the setbacks the same. Ιf 24 you-all want to proceed with (f), you may. CHAIRPERSON BAILEY: Under the current 25

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Page 3214 rule for temporary pits, a temporary pit is with 1 2 the -- allowed within 200 feet of any other 3 significant watercourse. So within -- under this regulation, under 4 300 feet is even increasing the distance between the 5 wetland and the other significant watercourse or 6 sinkhole or playa. 7 COMMISSIONER BALCH: Where is that at? 8 CHAIRPERSON BAILEY: Under the current 9 10 Rule 19.15.17.10.A (1) (b). COMMISSIONER BLOOM: The current rules are 11 12 300 feet for a potentially flowing watercourse. 13 CHAIRPERSON BAILEY: And 200 feet of any water -- other significant watercourse, sinkhole, or 14 playa lake. 15 COMMISSIONER BALCH: I think those would 16 probably more correctly be treated similarly. A 17 water well and water well fields are something 18 19 different. 20 CHAIRPERSON BAILEY: Yes. 21 COMMISSIONER BALCH: So we would perhaps be better off in A (1), or (1) (a) -- are you 22 proposing that we equalize those two distances? 23 24 CHAIRPERSON BAILEY: No. I'm proposing 25 that we go ahead and adopt (f) with the

Page 3215 understanding that it's more protective of the 1 2 wetland now than maybe it was before. 3 COMMISSIONER BALCH: That sounds good. COMMISSIONER BLOOM: Wasn't it 500 feet 4 before? 5 CHAIRPERSON BAILEY: Well, it was 500 feet 6 7 before. But it's difficult for me to reconcile the difference between 500 feet for a wetland and 8 200 feet for any other significant watercourse or 9 lakebed, sinkhole, or playa. 10 COMMISSIONER BLOOM: Maybe I wasn't there 11 12 because of the view that spreads of -- a spread of 13 fluid in a wetland can -- contamination can move 14 quickly, and it can be hard to -- hard to extract. 15 It's not like a river, where you have the water running through it. 16 17 COMMISSIONER BALCH: Well, as Commissioner Bailey just stated, that was more protective than 18 that -- than the generic part of the regulation that 19 was in the existing Rule 17. 20 21 So I think we are okay with 300 feet. 22 CHAIRPERSON BAILEY: Then shall we go to 23 paragraph (g)? Are you ready for that? 24 COMMISSIONER BALCH: I think "temporary" 25 needs to stay in, and we can remove "or below-grade

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Page 3216 1 tanks." 2 CHAIRPERSON BAILEY: I agree with that. So, Kim, have you already done that? 3 Yes. 4 5 MR. SMITH: Just to make certain, was there testimony about wetlands at all? 6 7 COMMISSIONER BALCH: It was incorporated in the rebuttal testimony of Mr. Buchanan, and the 8 9 direct testimony of -- to some extent -- Dr. Thomas, 10 and to a greater extent Mr. Arthur. 11 MR. SMITH: Okay. Thank you. 12 CHAIRPERSON BAILEY: And then we go to 13 (h): "within an unstable area, unless the operator demonstrates that it is incorporated in engineering 14 15 measures." I think "temporary" should stay at that 16 point, so we reject the deletion there, yes? 17 And do delete "or below-grade tanks." 18 COMMISSIONER BLOOM: 19 Correct. 20 CHAIRPERSON BAILEY: All right. 21 COMMISSIONER BALCH: "Within a 100-year 22 floodplain, " which makes sense. 23 CHAIRPERSON BAILEY: Okay. Shall we --24 COMMISSIONER BALCH: We wanted to include 25 a (j).

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Page 3217 CHAIRPERSON BAILEY: Well, we fixed that 1 up above, didn't we, when we included the language 2 up above? 3 COMMISSIONER BALCH: I think the language 4 (j) that we were talking about had to do with a 5 variation would not be applicable to siting criteria 6 7 for low chloride. The modified -- these particular siting criteria for low chloride fluids, and that an 8 exception would have to be applied for. 9 10 CHAIRPERSON BAILEY: Then let's go ahead 11 and craft a sentence for (j) and create (j). 12 COMMISSIONER BALCH: It would have to 13 point to the sections that have the low chloride 14 fluid changed to --15 CHAIRPERSON BAILEY: Okay. 16 COMMISSIONER BALCH: -- to that. 17 CHAIRPERSON BAILEY: So you do that, and I'll highlight where we have that. 18 19 COMMISSIONER BLOOM: We are writing the 20 variance exception language now? 21 CHAIRPERSON BAILEY: Yes. 22 COMMISSIONER BLOOM: So could it read, 23 perhaps, variances will be permitted above -- except in cases where the operator seeks to move inside 24 25 distances set for low chloride fluids, in which case

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Page 3218 an exception would be sought? 1 COMMISSIONER BALCH: Well, the way we have 2 been talking about variances and exceptions is that 3 variances would be applicable to anything we don't 4 specifically say required an exception. 5 COMMISSIONER BLOOM: That's what I was 6 7 saying. 8 CHAIRPERSON BAILEY: Yeah. So you succinctly put by combining it all into one 9 10 sentence. 11 Okay. 12 COMMISSIONER BLOOM: So we might -- do we 13 even need to mention variances, since it's assuming? COMMISSIONER BALCH: I don't think we need 14 to mention variances. 15 COMMISSIONER BLOOM: Okay. 16 So, 17 "operators" --COMMISSIONER BALCH: Would require an 18 19 exception to --20 COMMISSIONER BLOOM: -- "will require an exception to move a temporary pit inside" -- or 21 locate -- sorry, locate -- I'm sorry. Change "move" 22 to "locate a temporary pit inside setbacks indicated 23 for low chloride fluids." 24 25 COMMISSIONER BALCH: And then we probably

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Page 3219 actually want to point to the sections that have 1 those in it. 2 CHAIRPERSON BAILEY: And that is 3 19.15.17.10.A.1 (a), (b), (d), and (f). 4 COMMISSIONER BLOOM: I just have one 5 concern, and that would be with (c). 6 7 Could somebody be able to seek only a variance to occupy within 300 feet of a residence or 8 9 school, hospital? COMMISSIONER BALCH: Well, they could --10 okay. Where is this? In (c)? 11 12 COMMISSIONER BLOOM: Yes. CHAIRPERSON BAILEY: And that's the 13 14 distance to a home, school, hospital, or church. COMMISSIONER BALCH: Well, this particular 15 language is only addressing the four siting changes 16 from low chloride fluids. 17 If you wanted that other portion of this 18 to be exception only, probably you could include it 19 at the end of that section instead. 20 CHAIRPERSON BAILEY: Because (c) applies 21 to all kinds of fluids, high and low fluids. 22 23 COMMISSIONER BALCH: Right. COMMISSIONER BLOOM: What if we said -- we 24 modify (j) to say: "Operators will require an 25

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Page 3220 exception to locate a temporary pit inside setbacks 1 set in (c) above, which would be 19.15.17.A.1 (c), 2 or where indicated for low chloride fluids"? 3 CHAIRPERSON BAILEY: The problem with that 4 5 is that (a), (b), and (c) make that distinction between low chloride and high chloride. So what you 6 would be doing there is making high chloride changes 7 also. 8 9 COMMISSIONER BALCH: Where you already have the more protective higher setbacks. 10 I think it might be better to go to 11 Section (c) and look at it and see if we can just 12 add the exception clause at the end of that 13 14 paragraph (c). A (1) (a) -- A (1) (c): "within 300 15 feet from an occupied permanent residence, school, hospital, institution, or church in existence at the 16 17 time of initial application." The question brought forth by Mr. Bloom 18 19 was: Does this rise to the level of an exception? 20 Or maybe that was a statement by Mr. Bloom, that he thought it did. 21 22 COMMISSIONER BLOOM: I'm asking if we want to make that an exception, or would somebody need an 23 24 exception to go within 100 feet of a building 25 mentioned there?

Page 3221 CHAIRPERSON BAILEY: I don't believe that 1 2 a district office is going to allow 100 feet, that 3 large of a change. 4 COMMISSIONER BLOOM: Okay. 5 CHAIRPERSON BAILEY: That large of a difference between that 300 feet. 6 I think that 7 is -- that's really not necessary, to rise to that 8 level. COMMISSIONER BALCH: I would concur. 9 10 CHAIRPERSON BAILEY: Okay. So we have --COMMISSIONER BALCH: So we now need to 11 12 copy this entire Section A, relabel it B, and do it 13 for multi-well management pit, fluid management pits? 14 15 MR. SMITH: Well, you might want to go 16 back. I think there is a change you might want to 17 make in the last section that you wrote, which is where -- where you have "Operators will require." 18 19 The operator isn't really requiring 20 anything. I think you might want to change it to 21 "Operators must obtain." 22 COMMISSIONER BALCH: Okay. 23 COMMISSIONER BLOOM: "An exception." I 24 agree with that. 25 COMMISSIONER BALCH: That is better.

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Page 3222 COMMISSIONER BLOOM: I think I might have 1 2 meant to say that prior. 3 COMMISSIONER BALCH: Good language, Mr. Smith. 4 5 CHAIRPERSON BAILEY: Before we do that, 6 shall we just go ahead and vote on this section? 7 COMMISSIONER BALCH: Sure. CHAIRPERSON BAILEY: Okay. 8 Do I hear a motion to incorporate the 9 10 changes as we have discussed in 19.15.17.10.A, as they pertain to temporary pits? 11 COMMISSIONER BALCH: Do we want to go 12 13 through line by line, or is it better just to have a blanket for the entire section? 14 15 CHAIRPERSON BAILEY: We could go portion by portion if there is some parts that... 16 MR. SMITH: He could say, "I opt out of 17 this part of (a), (b), (d), and (f)." 18 19 COMMISSIONER BLOOM: Why don't we go 20 quickly by paragraph. 21 CHAIRPERSON BAILEY: Okay. So for 22 19.15.17.10.A (1) (a), yes. 23 COMMISSIONER BLOOM: I move that we vote 24 by --25 COMMISSIONER BALCH: I will move that we

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Page 3223 1 accept (a). 2 CHAIRPERSON BAILEY: As --COMMISSIONER BALCH: As written. 3 4 CHAIRPERSON BAILEY: -- written and deliberated. 5 I second that motion. 6 7 All those in favor? 8 Aye. 9 COMMISSIONER BALCH: Aye. 10 CHAIRPERSON BAILEY: All those opposed, nay? 11 COMMISSIONER BLOOM: 12 Nay. 13 CHAIRPERSON BAILEY: One nay. 14 So for subparagraph (b), do I hear a 15 motion to accept paragraph (b) as deliberated and written? 16 17 COMMISSIONER BALCH: I will make that 18 motion. CHAIRPERSON BAILEY: I will second it. 19 20 All those in favor? 21 Aye. 22 COMMISSIONER BALCH: Aye. 23 CHAIRPERSON BAILEY: All those opposed? 24 COMMISSIONER BLOOM: Nay. CHAIRPERSON BAILEY: One nay. 25

F	
	Page 3224
1	So for subparagraph (c)?
2	COMMISSIONER BLOOM: I will move to vote
3	on subparagraph (c).
4	CHAIRPERSON BAILEY: Is there a second?
-5	COMMISSIONER BALCH: I will second.
6	CHAIRPERSON BAILEY: All those in favor?
7	Aye.
8	COMMISSIONER BALCH: Aye.
9	COMMISSIONER BLOOM: Aye.
10	CHAIRPERSON BAILEY: Motion passes 3-0.
11	For subparagraph (d), do I hear a motion
12	to accept paragraph (d), as deliberated and written?
13	COMMISSIONER BALCH: I will make that
14	motion.
15	CHAIRPERSON BAILEY: I second that motion.
16	All those in favor?
17	COMMISSIONER BALCH: Aye.
18	CHAIRPERSON BAILEY: Aye.
19	All those opposed?
20	COMMISSIONER BLOOM: Nay.
21	CHAIRPERSON BAILEY: One nay.
22	For subparagraph (e), it was agreed not to
23	change the current subparagraph (e), not to change
24	the current regulation concerning incorporated
25	municipal boundaries.

Page 3225 Do I hear a motion to maintain the current 1 regulation in this subparagraph? 2 COMMISSIONER BLOOM: Yes, I so move. 3 4 COMMISSIONER BALCH: And I will second. CHAIRPERSON BAILEY: All those in favor? 5 6 Aye. COMMISSIONER BALCH: 7 Aye. COMMISSIONER BLOOM: 8 Aye. 9 Motion passes 3-0. 10 CHAIRPERSON BAILEY: For subparagraph (f), do I hear a motion to accept the language as 11 12 deliberated and as shown on the screen? 13 COMMISSIONER BALCH: I will make that 14 motion. I will second it. 15 CHAIRPERSON BAILEY: All those in favor? 16 17 COMMISSIONER BALCH: Aye. 18 CHAIRPERSON BAILEY: Aye. 19 All those opposed? 20 COMMISSIONER BLOOM: Nay. 21 CHAIRPERSON BAILEY: One nay. 22 For subparagraph (g). 23 COMMISSIONER BLOOM: And (h). 24 CHAIRPERSON BAILEY: And (h). 25 COMMISSIONER BALCH: And (i).

Page 3226 CHAIRPERSON BAILEY: And (i). 1 2 COMMISSIONER BALCH: And probably for (j), as well. 3 4 Well, no, (j) has not been... 5 CHAIRPERSON BAILEY: For subparagraphs (g), (h), and (i), do I hear a motion to accept the 6 7 changes as written up on the screen? COMMISSIONER BLOOM: 8 Yes, I so move. And I will second. 9 COMMISSIONER BALCH: CHAIRPERSON BAILEY: All those in favor? 10 11 Aye. 12 COMMISSIONER BALCH: Aye. 13 COMMISSIONER BLOOM: Aye. 14 CHAIRPERSON BAILEY: So for subparagraph 15 (j), that requires an exception for certain conditions concerning low chloride fluids, do I hear 16 a motion to accept that language? 17 18 COMMISSIONER BALCH: I will move to accept that language. 19 20 CHAIRPERSON BAILEY: I second it. 21 All those in favor? 22 COMMISSIONER BALCH: Aye. 23 CHAIRPERSON BAILEY: Aye. 24 All those opposed? 25 COMMISSIONER BLOOM: I quess I'm in favor

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Page 3227 of that. 1 2 CHAIRPERSON BAILEY: Okay. So I hear a 3 third -- three ayes. Okay. 4 Motion passes, 3-0. 5 Now, we can copy that entire Section 1. COMMISSIONER BLOOM: Madam Chair? 6 7 CHAIRPERSON BAILEY: Yes. COMMISSIONER BLOOM: May I suggest that we 8 consider treating multi-well fluid management pits 9 10 as permanent pits for the purpose of siting? 11 COMMISSIONER BALCH: That might simplify 12 things. 13 CHAIRPERSON BAILEY: It certainly does. That's the way I have it in my notes. 14 15 So instead of copying -- I'm sorry if you have already started doing that. If you'll scroll 16 17 down to (2), that begins: "An operator shall not locate a permanent pit," and -- yes, right there at 18 19 the bottom -- and include the words "or" --20 COMMISSIONER BALCH: -- "multi-well fluid 21 management pit." 22 COMMISSIONER BLOOM: Do you want to change "multi-wall" and make that "multi-well"? 23 24 COMMISSIONER BALCH: Otherwise, the 25 permanent pit language is unchanged. Is that right?

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Page 3228 COMMISSIONER BLOOM: One suggested change 1 on (e). 2 COMMISSIONER BALCH: Well, there's 3 "unconfined water," which we have already removed, I 4 think. 5 CHAIRPERSON BAILEY: If you will scroll 6 7 down to (d). COMMISSIONER BLOOM: I believe we need --8 9 CHAIRPERSON BAILEY: We did not accept the 10 deletion of that when we were talking about distance 11 for a temporary pit because of the --12 COMMISSIONER BLOOM: So I'm confused why, here, we would only have a setback for a well that 13 14 less than five houses depends on of 500 feet, but 15 then any other well is a thousand feet. So if no one is -- if no households are 16 using it, it gets a thousand feet of protection, but 17 if five houses, four houses are using it, it only 18 gets 500? 19 20 COMMISSIONER BALCH: Well, the language 21 that we are deleting makes it more specific to less than five households, which I think leads you to 22 believe that everything else is going to be greater 23 than five households. 24 25 Does anybody recall in the testimony, when

Page 3229 we were talking about the number of households? 1 2 CHAIRPERSON BAILEY: I don't recall 3 testimony, no. COMMISSIONER BLOOM: I don't either. 4 COMMISSIONER BALCH: Okay. So there's 5 6 less than five households, it looks like the 7 suggested language --CHAIRPERSON BAILEY: Makes it more 8 protective of everybody. If we delete that: "An 9 10 operator shall not locate a permanent pit within 500 feet of the well or spring used for domestic or 11 12 stock watering purposes." 13 COMMISSIONER BALCH: Five households, it really just seems very arbitrary. 14 15 COMMISSIONER BLOOM: Well, it looks like we have a -- perhaps IPA was trying to put it back 16 We have it up there in green. 17 in. COMMISSIONER BALCH: Or OCD. 18 19 COMMISSIONER BLOOM: Or OCD. 20 MR. SMITH: I think that five household 21 number may have been borrowed from another statute 22 or rule, just based on what we have looked at today. 23 CHAIRPERSON BAILEY: But doesn't it become 24 more protective of --25 COMMISSIONER BALCH: I think if somebody

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	Page 3230
1	is using the water you want to protect it.
2	CHAIRPERSON BAILEY: Yeah.
3	COMMISSIONER BALCH: I don't care if it's
4	1, 2, 3, 4, 5, or 20.
5`	COMMISSIONER BLOOM: But then it's less
6	protected than the water that no one is using.
7	COMMISSIONER BALCH: Well, I don't think
8	that "any other fresh water" means that no one is
9	using it.
10	COMMISSIONER BLOOM: Well, if it's a if
11	the fresh water well or spring it's a thousand feet.
12	But if it's being used for domestic water or
13	livestock
14	COMMISSIONER BALCH: Well, one of them is
15	a private
16	COMMISSIONER BLOOM: then it's 500
17	feet.
18	COMMISSIONER BALCH: a private,
19	domestic well or spring, which I think I think
20	that maybe the "private" is the distinction.
21	COMMISSIONER BLOOM: I guess my question
22	still stands. What distance are wells protected
23	above?
24	CHAIRPERSON BAILEY: 200 for low chloride,
25	300

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Page 3231 COMMISSIONER BALCH: For other. 1 CHAIRPERSON BAILEY: -- for other. 2 So this is --COMMISSIONER BLOOM: Yeah. 3 this is setbacks for permanent pits, then multi-well 4 fluid management pits, which could have potentially 5 6 on average four times more water. COMMISSIONER BALCH: I think if you 7 8 stopped after "watering purposes," and just apply 500-foot limitation, you would probably be 9 protected. 10 CHAIRPERSON BAILEY: But maintain that 11 12 last clause "in existence at the time of initial 13 application." COMMISSIONER BALCH: Right. 14 I would get rid of the "or within 1,000 feet of any other." 15 It doesn't add anything. And why would it be more 16 protective of something that wasn't being used, 17 necessarily? 18 19 MR. SMITH: If I could just interject. 20 The less than five households standard, I think, has been borrowed from the definition of 21 wellhead protection area, because the five household 22 23 standard is used in that definition at 19.15.2.7, 24 subparagraph 8. 25 CHAIRPERSON BAILEY: And it's probably,

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Page 3232 there, borrowed from water quality control or the 1 2 state engineer. MR. SMITH: That, I don't want to 3 4 speculate to. 5 COMMISSIONER BALCH: But again, if we remove that language we become more protective on 6 7 that. It doesn't violate those statutes. MR. SMITH: Well, I'm not -- I wasn't 8 9 saying this for violation. I was speaking to the 10 notion of whether the five households was arbitrary. COMMISSIONER BALCH: I'm thinking the most 11 12 common case would be one household or something like 13 that. 14 COMMISSIONER BLOOM: Yes. 15 COMMISSIONER BALCH: That would be a case that would occur. 16 But I guess again, I would just state that 17 if you are going to be protective -- I think you 18 19 would be protective at 500 feet, and that would 20 apply to pretty much any caseload, so you could simplify this language. 21 22 MR. SMITH: And that's based on the testimony that you have previously cited in this 23 discussion. 24 25 COMMISSIONER BALCH: Based on the

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1 testimony that we have.

2 And again, we are talking here about sites that are going to be monitored on a regular basis. 3 They are permanent, but they also have a double 4 liner, so the groundwater is protected. They're 5 bermed. They have overlap of the liner. 6 7 CHAIRPERSON BAILEY: Heavier liner. COMMISSIONER BALCH: Heavier liners. 8 9 And if you are protected at 100 feet for a temporary pit with a lower standard than that, at 10 500 feet you are going to be protected... 11 12 COMMISSIONER BLOOM: Is there a proposal? 13 Where are we at? 14 COMMISSIONER BALCH: The proposal is to strike the "less than five households" and strike 15 16 the "or within a thousand feet of any other fresh water well or spring." 17 So it would read "within 500 feet of a 18 private, domestic fresh water well or spring used 19 20 for domestic or stock watering purposes in existence at the time of the initial application." 21 22 MR. SMITH: May I ask a question, 23 Dr. Balch, just to get this straight? 24 Did you -- because I want to make sure 25 that you-all are working through these consistently.

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Page 3234 Did you earlier reference the amount of 1 drawdown by more than five households and how that 2 could affect the concentrations? 3 CHAIRPERSON BAILEY: I mentioned that that 4 may enhance, but that was not testimony during the 5 hearing. It was my knowledge of drawdown. 6 7 COMMISSIONER BALCH: And when we are talking about -- earlier, when I talked about 8 9 temporary pits in the same section, my point was that we are talking about operational water that 10 That is not going to be impacted in 11 won't be there. the groundwater. We are talking about surface flow 12 risk. And similarly, for the permanent events, we 13 14 have others. So I think the same standard applies. 15 When we talk about closure, then we will have another discussion. 16 If you delete "or 17 COMMISSIONER BLOOM: within 1,000 feet of any fresh water well or 18 spring," might you want to delete "private and 19 20 domestic," so that we're not... 21 COMMISSIONER BALCH: Just any fresh water 22 well or spring used for domestic or stock watering purposes? 23 COMMISSIONER BLOOM: 24 Or not used -- used 25 or not used. I don't know.

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Page 3235 CHAIRPERSON BAILEY: That would make 1 2 sense. COMMISSIONER BLOOM: Maybe not even --3 4 CHAIRPERSON BAILEY: Dr. Neeper was very clear that a spring should not have to be used in 5 6 order to be protected. 7 COMMISSIONER BALCH: And I agree with that. 8 9 CHAIRPERSON BAILEY: With that in mind, we could say "within 500 feet of a spring, comma, or a 10 fresh water well used for domestic or stock watering 11 purposes in existence at the time of the initial 12 application." 13 COMMISSIONER BALCH: That would solve it. 14 15 Fresh water spring. So within 500 feet of 16 a fresh water -- actually it would just be a spring, 17 a fresh water spring? CHAIRPERSON BAILEY: Within 500 feet of a 18 spring -- or -- after spring put the words "or fresh 19 water well." 20 21 All right. Are we happy with (d), as it 22 is written up there? COMMISSIONER BLOOM: I don't know that I 23 support the reduction from 1,000 to 500. But... 24 25 COMMISSIONER BALCH: What was protected

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Page 3236 under a thousand I'm not sure was well defined. 1 2 The existing statute had 500 feet for spring or fresh water well that was used by less 3 than five people. So I think we are equally 4 protected. 5 6 CHAIRPERSON BAILEY: Should we go on to 7 paragraph (e), or did you have --COMMISSIONER BLOOM: No, we can move on to 8 (e). 9 10 CHAIRPERSON BAILEY: Okay. COMMISSIONER BLOOM: We can go back on 11 that one. 12 CHAIRPERSON BAILEY: (e) is the same as 13 what we discussed for temporary pits and chose not 14 15 to change that language. 16 COMMISSIONER BALCH: I suggest we don't 17 change the language in (e). 18 So are you in agreement with that, Commissioner Bloom? 19 20 COMMISSIONER BLOOM: I would agree. 21 CHAIRPERSON BAILEY: Okay. (f): "Within 500 feet of a wetland." 22 23 No suggested changes have been made all the way down until we get to (3). So that --24 25 COMMISSIONER BALCH: That would finish

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Page 3237 1 up --2 CHAIRPERSON BAILEY: -- concludes our discussion on that. 3 COMMISSIONER BALCH: That would combine 4 multi-well and permanent into that second category, 5 and we made all the changes that need to be made. 6 CHAIRPERSON BAILEY: And when we were 7 talking about exceptions and variances, did we 8 specifically talk about permanent pits and 9 multi-well fluid management pits being covered 10 11 under --12 COMMISSIONER BALCH: I remember discussing 13 permanent pits. COMMISSIONER BLOOM: We did cover that. 14 15 CHAIRPERSON BAILEY: Actually, we need to have an additional paragraph here to explain that 16 exceptions would have to be requested. 17 Can we borrow (j) from under Section (1)? 18 I think we can start there. 19 20 Are we all in agreement that multi-well 21 pits and permanent pit siting variations would 22 really be an exception? 23 CHAIRPERSON BAILEY: Yes. 24 COMMISSIONER BLOOM: Correct, yes. 25 COMMISSIONER BALCH: So here you would

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Page 3238 "Operators must obtain an exception to locate 1 say: a permanent pit or a multi-well fluid management 2 pit" well, "fluid management pit." 3 You can leave "temporary pit inside 4 setbacks indicated," and then you can delete "for 5 low chloride fluids." 6 And would it be indicated in 19.15.17.10A 7 (2)?8 9 COMMISSIONER BLOOM: (2). COMMISSIONER BALCH: And then delete the 10 11 (a), (b), (c), (d) -- (a), (b), (d), (f). 12 CHAIRPERSON BAILEY: Correct. 13 Okay. As we voted on the exceptions and siting for temporary pit, shall we vote on the 14 permanent pit and multi-well fluid management 15 section, so that we could then move on? 16 17 COMMISSIONER BLOOM: Yes. Would it be allowable --18 And, Mr. Smith, you know, can we vote --19 20 we can move to just vote -- I don't know whether 21 they're paragraphs or subparagraphs now? 22 COMMISSIONER BALCH: Well, we can probably do everything down to the 500 feet, and then 23 24 everything below it, if you would like. 25 COMMISSIONER BLOOM: I don't know if we

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Page 3239 need to move for -- if I have a movement and then a 1 second to vote on every line, or can we move to vote 2 3 on a section at a time? 4 MR. SMITH: I think you can vote however you want when you want. I don't think you need a 5 motion or a second. 6 7 COMMISSIONER BALCH: So essentially, we want to vote on everything above the paragraph where 8 9 we are discussing the 500-foot, and then that section, and then everything below it, I think we 10 can vote on as to a block. 11 So it would be (2). Is that correct? 12 13 COMMISSIONER BLOOM: That's correct. 14 CHAIRPERSON BAILEY: So do I hear a motion 15 to accept and make changes in 19.15.17.10A (2) (a) through (c)? 16 17 COMMISSIONER BLOOM: I so move. 18 COMMISSIONER BALCH: I will second it. CHAIRPERSON BAILEY: All those in favor? 19 20 Aye. 21 COMMISSIONER BALCH: Aye. 22 COMMISSIONER BLOOM: Aye. 23 CHAIRPERSON BAILEY: And then for 24 paragraph (d), is there a motion to adopt the 25 changes that were made there?

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Page 3240 COMMISSIONER BALCH: I will make that 1 motion. 2 CHATRPERSON BATLEY: Second. 3 All those in favor? 4 COMMISSIONER BALCH: Aye. 5 6 CHAIRPERSON BAILEY: Aye. All those opposed? 7 COMMISSIONER BLOOM: 8 Nay. CHAIRPERSON BAILEY: 9 One nay. 10 And then for paragraphs (e) through (j), 11 do I hear a motion to adopt the language as we have discussed? 12 13 COMMISSIONER BLOOM: Yes, I so move. 14 COMMISSIONER BALCH: And I will second. 15 CHAIRPERSON BAILEY: All those in favor? 16 Aye. 17 COMMISSIONER BALCH: Aye. 18 COMMISSIONER BLOOM: Aye. 19 CHAIRPERSON BAILEY: All right. We can move on to what do we do with material excavated 20 from a pit's construction, as far as siting of that 21 pit's construction. 22 23 (3) (a) suggests that we change that from 300 feet to 100 feet. And OCD suggests that we 24 25 change that from "continuously flowing watercourse"

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Page 3241 to "continuously flowing watercourse or a flowing 1 significant watercourse," so to add in the "flowing 2 significant watercourse, " along with the 3 4 "continuously flowing." 5 COMMISSIONER BALCH: There wasn't a lot of 6 testimony on this. I think that the testimony that 7 I do recall was, what's the problem with the pile of 8 dirt? 9 CHAIRPERSON BAILEY: And this is a pile of 10 dirt that is excavated during the pit's 11 construction. It has not yet been contaminated with 12 any kind of chemicals, fluids, or whatever else. 13 COMMISSIONER BALCH: Right. 14 COMMISSIONER BLOOM: I think I would be supportive of these changes, particularly because I 15 16 can't imagine too many areas near wetlands that are also in floodplains. 17 COMMISSIONER BALCH: I also -- I think 18 there was -- there was testimony that said they were 19 really just looking for flexibility in the word 20 21 "piling." 22 CHAIRPERSON BAILEY: So, Kim, would you 23 please add in under (3) (a), where it says "continuously flowing watercourse," add in the words 24 25 "or a flowing significant watercourse."

Page 3242 So a flowing 1 COMMISSIONER BALCH: 2 significant watercourse might be something like the Rio Salado, where it passes I-25 at the rest stop 3 down there around exit 175 or so. 4 One or two months out of the year it may 5 have water in it, but it's a significant 6 7 watercourse. This is saying that you're differentiating 8 9 the 8 or 10 months of the year when it has no water in it from when it does, and what if your operation 10 overlaps those time periods? You would be in and 11 out of compliance if it rained upstream that 12 afternoon. 13 14 COMMISSIONER BLOOM: Therefore, you would think it would make sense to include that? 15 COMMISSIONER BALCH: Well, I'm not sure it 16 would make sense to include it. 17 I also think we're talking about a pile of 18 dirt. 19 So I'm not sure what the risk is that it 20 would pose to a significant watercourse. 21 I would say "significant watercourse" and not "flowing significant watercourse," if you wanted 22 23 to have --CHAIRPERSON BAILEY: And then we would 24 delete "other significant watercourse" from the next 25

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Page 3243 phrase that has the 200-foot limitation. 1 COMMISSIONER BALCH: "200 feet from a 2 lakebed, sinkhole, or playa," that's fine. 3 CHAIRPERSON BAILEY: So the suggestion was 4 5 made to just add "significant watercourse." 6 COMMISSIONER BALCH: Well, I would just take out the word "flowing" because --7 COMMISSIONER BLOOM: Well --8 9 COMMISSIONER BALCH: -- you would end up with a situation where your compliance goes in and 10 out, depending upon the weather. 11 COMMISSIONER BLOOM: If it's flowing or 12 I would agree. 13 not. 14 CHAIRPERSON BAILEY: So how would you have 15 it read? 16 COMMISSIONER BALCH: "Within 300 feet of -- within a -- of a continuous flowing 17 watercourse or significant watercourse, or 200 feet 18 of any other significant" -- or I guess I would say 19 20 "or 200 feet of any other lakebed, sinkhole, or playa lake." 21 22 CHAIRPERSON BAILEY: So we are changing the location of "significant watercourse" from down 23 24 below to up above. 25 And the suggestion was to change it to 100

Page 3244 feet rather than 300 feet, up in the first line of 1 2 (3) (a). COMMISSIONER BALCH: I thought we were 3 changing it to 300. 4 5 CHAIRPERSON BAILEY: No, it is at 300, to remove it. To change it from 300 from 100 was the 6 7 proposal. 8 COMMISSIONER BALCH: Or within. Okay. 9 Yes. MR. SMITH: Do you intend to give more 10 protection to lakebeds and sinkholes than you do 11 significant watercourses? 12 13 COMMISSIONER BALCH: That's an interesting 14 feature of this. And that's why I was talking about 15 flowing watercourses versus flowing significant 16 watercourses. Why would you have a different level of protection? They're both watercourses. 17 18 So lakebeds, sinkholes, playas would be another broad category of potential surfaces where 19 20 you would -- surfaces of water. 21 CHAIRPERSON BAILEY: As was pointed out, 22 does it make sense for additional protection from a 23 pile of dirt for a playa lake? Or is 100 feet a 24 reasonable distance from --25 COMMISSIONER BLOOM: You will be stacking

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Page 3245 dirt 30 feet from -- 30 yards from a sinkhole. 1 2 COMMISSIONER BALCH: Well, I mean you might lose your pile of dirt, I suppose. 3 4 COMMISSIONER BLOOM: Or your tractor. COMMISSIONER BALCH: I'm not sure if there 5 6 really needs to be a differentiation. If you just lump all the water features into one category within 7 100 feet it should be fine. 8 9 COMMISSIONER BLOOM: Including wetlands? Well, wetlands you're 10 COMMISSIONER BALCH: talking about in (b). 11 12 COMMISSIONER BLOOM: Yeah. 13 CHAIRPERSON BAILEY: Okay. So in (a) we can delete "continuously flowing." Is that what you 14 15 are saying? 16 Well, "continuously COMMISSIONER BALCH: flowing" is one of the things we have to define. 17 18 CHAIRPERSON BAILEY: Yes. And we have "significant." 19 20 COMMISSIONER BALCH: Well, I think I would 21 keep the language all the way up to where it says "or 200 feet," and I would delete "or 200 feet" all 22 23 the way over to the "or" in front of "lakebed," I 24 quess. Yeah. I would leave that. 25 And then that would give you 100 feet from

Page 3246 all of those five features. 1 2 CHAIRPERSON BAILEY: Yes, I think we have agreed to that. 3 4 COMMISSIONER BALCH: And then you will have to take out the other "or" up there and turn it 5 6 into a comma in the first line. Take it out and 7 replace it with a comma after "watercourse." I think you can take out the "or" in front 8 of "lakebed" as well. 9 And I don't know if we need the language 10 on alternate distance, because that could be taken 11 care of by a variance, unless you want to leave it 12 13 in there for some reason. 14 CHAIRPERSON BAILEY: No, because it gives 15 the same criteria that we would be judging the variance anyway. So we could put the period after 16 the parentheses high-water mark. 17 18 And then delete the rest of (a), yes. COMMISSIONER BALCH: 19 I quess that period has to become a semicolon, to be consistent. 20 All right. Now, wetlands. Previously, it 21 was within 500 feet of a wetland, and they're asking 22 23 for 100 feet of a wetland. 24 We had this discussion with siting for 25 permanent and multi-well pits and also for temporary

Page 3247 pits. I believe we have temporary pits at 100-foot, 1 2 and it was protected where a river would be protected over a wetland, as well. And we are, 3 again, talking about a pile of dirt. 4 5 MR. SMITH: Let me ask you. Is the evidence to which you refer on this 6 the comment about what's wrong with a pile of dirt? 7 Was there any further evidence on this? 8 9 COMMISSIONER BALCH: Are we allowed to use common sense? 10 11 MR. SMITH: It's very rare for 12 commissions. 13 I'm sorry. I couldn't help that. 14 I think you are allowed to use common 15 sense. COMMISSIONER BALCH: The worst danger is 16 in washing it away, and I suppose that is the risk. 17 MR. SMITH: Well, there is the possibility 18 of creating silt in the waterbed. 19 20 CHAIRPERSON BAILEY: Which is covered 21 under federal regulations, as far as --COMMISSIONER BLOOM: Storm water? 22 23 CHAIRPERSON BAILEY: -- storm water and 24 additional sedimentation into rivers. I think 25 federal regulations cover that for waters of the US.

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Page 3248 MR. SMITH: We don't know what those 1 federal regulations are. 2 CHAIRPERSON BAILEY: No, but they enforce 3 4 theirs, and we are only looking at OCD, Oil and Gas 5 Act, and OCD regulations. COMMISSIONER BALCH: If we were to say 100 6 7 feet of a wetland, we could move wetland up after watercourse in (a), and I would be in favor of 8 9 removing (c) entirely. 10 CHAIRPERSON BAILEY: Mr. Bloom, do you have thoughts on that? 11 I'm trying to 12 COMMISSIONER BLOOM: remember if I ever heard of any particular 13 14 reservations about silt in wetlands. That's 15 generally a flat area, so I'm not sure it exists. 16 COMMISSIONER BALCH: Your absolute worst-case scenario is going to be where you have 17 such a great amount of sheath flow across the area 18 where you have your pile of dirt that the entire 19 thing washes into your wetland or river or whatever, 20 at which point you would probably have other erosion 21 22 problems that would be more than your pile of dirt. I just don't know --23 24 COMMISSIONER BLOOM: This is all the context of this not being in a 100-year floodplain. 25

Page 3249 COMMISSIONER BALCH: The 100-year 1 floodplain is pretty broad. I think most of 2 Socorro -- the city of Socorro is within a 100-year 3 floodplain, for example. 4 COMMISSIONER BLOOM: I think we can move 5 wetland up, then. 6 7 CHAIRPERSON BAILEY: Okay. COMMISSIONER BALCH: So wetland, right 8 there where your cursor is, and then remove (b) and 9 (C). 10 Do we need subsection (a) if there's no 11 12 subsection (b)? 13 CHAIRPERSON BAILEY: Then it all becomes 14 one big sentence under (3). MR. SMITH: Madam Chair, could we take a 15 10-minute break? 16 17 CHAIRPERSON BAILEY: Let's take a 10 18 minute break. We'll come back at five to 4:00. 19 20 (A recess was taken from 3:44 p.m. to 3:50 21 p.m.) 22 CHAIRPERSON BAILEY: Back on the record. 23 During the break I debated concerning the 24 discussion that we just had concerning locating 25 material excavated from the pit's construction.

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Page 3250 What was presented to us was to change the 1 setbacks for a continuously flowing watercourse and 2 not for any other -- and for wetland, but not for 3 any other changes within that section. 4 5 We had minimal, if any, discussion during 6 the hearing. So the evidence for doing any crossing 7 out or deleting of the current regulations in some areas would be questionable. 8 9 Yes, we rely on our expertise and our common sense to a certain degree. But without 10 11 having the evidence in the record it may be 12 difficult to justify wholesale deletion of certain areas, when we don't have the opportunity for any 13 discussion or any evidence taken for this particular 14 section. 15 COMMISSIONER BALCH: Did we modify 16 17 anything in (a) that we should not have? There was a 200-foot setback for lakebed, sinkhole, playa 18 lakes. That was not... 19 20 CHAIRPERSON BAILEY: No. The only requested modification was for the hundred feet in 21 the first line. And then --22 COMMISSIONER BALCH: Then it was 200 feet 23 24 for lakebed, sinkhole, or playa lakes. 25 CHAIRPERSON BAILEY: That was always

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Page 3251 1 there. That was not requested for change. 2 COMMISSIONER BALCH: Could we at least put 3 a return after watercourse and make a new (b) for lakebed, sinkhole, or playa that has the same 4 5 language as original, and have that back to 200 feet? Because... 6 7 CHAIRPERSON BAILEY: Okay. Yes. COMMISSIONER BLOOM: Maybe put wetland and 8 continuously flowing watercourse above? 9 10 MR. SMITH: My concern is this. For your 11 other setback and the other siting requirements you 12 have a host of evidence related to soil physics and everything else. You don't really have -- that I 13 know of -- any evidence with respect to this 14 15 allegedly innocuous pile of dirt. 16 COMMISSIONER BALCH: My understanding of 17 the way the rule is formed under this commission, 18 the variances will have to take care of this. 19 MR. SMITH: Ah. I think they would have 20 to take care of that. So my question is whether you 21 have the evidence before you necessary to change the 22 setback requirements for a pile of dirt. 23 COMMISSIONER BALCH: Okay. So 200 feet 24 from a lakebed, sinkhole, or playa lake. 25 Now we can talk about the hundred feet for

Page 3252 a wetland. 1 CHAIRPERSON BAILEY: Well, up in the first 2 line, (a), we need to have a --3 COMMISSIONER BALCH: Well, there was a 4 suggested change to add a flowing significant 5 watercourse. 6 CHAIRPERSON BAILEY: 7 Yes. COMMISSIONER BALCH: So we do have some 8 discretion there. 9 10 CHAIRPERSON BAILEY: So we can put "or" between watercourse and (a). 11 12 COMMISSIONER BALCH: All right. 13 COMMISSIONER BLOOM: Could we just move 14 wetland up there, since the setback is supposed to be the same? 15 Well, if we accept 16 COMMISSIONER BALCH: the change we would be able to do that. 17 18 MR. SMITH: No. I mean formatting is another matter. I think the first issue is do you 19 have the evidence before you to make the change to a 20 100-foot setback? 21 COMMISSIONER BALCH: I think there is 22 evidence or testimony for the 100-foot setback in 23 24 the context of pit ruling waste, which is going to 25 be, in my opinion, more dangerous than a pile of

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Page 3253 1 dirt. 2 CHAIRPERSON BAILEY: We have the ability 3 to be consistent between the distance from a 4 temporary pit to a wetland, and the material excavated from that pit to a wetland. 5 So we -- we could be consistent in our 6 7 setbacks for both the temporary pit and the dirt excavated for that pit. 8 9 MR. SMITH: If you are certain that threats from a pile of dirt are the same category of 10 threat that you could have from a pit, then I 11 believe that you could analogize that. 12 The issue is do you have a basis for 13 14 believing? 15 COMMISSIONER BALCH: I could probably give you citations from Dr. Thomas, where he talks about 16 the risk is in the transport. The liquids are more 17 18 transportable than solids. 19 MR. SMITH: Okay. 20 COMMISSIONER BALCH: He has that language 21 in his testimony, that a liquid is apparently more 22 able to transport a threat than a solid. 23 So if we can then draw a conclusion that 24 pile dirt removed from the pit is a solid, whereas the liquids that go into the pit are liquid, are we 25

Page 3254 1 allowed to make that connection? If you have that kind of 2 MR. SMITH: 3 evidence. I mean, certainly, you exercise reason on your evidence, and you don't need to cite -- well, 4 no. Actually, that would be helpful. Why don't you 5 do that. We will put it in the record. 6 7 It's going to be in COMMISSIONER BALCH: pages 465, 466, and 467 of Dr. Thomas' testimony, 8 his direct testimony. 9 And I'm referring to the risk is in the 10 transportability, the pathways for a hazardous 11 material to go from a source to the place where the 12 13 hazard has an impact. 14 And then he talks directly that closure 15 lowers the risk because you are taking it from a liquid to a solid state. 16 Would that be sufficient? 17 18 MR. SMITH: If -- I mean, that's not really up to me. 19 If, as a scientist and in your expertise, 20 21 you believe that that evidence allows you to conclude that this pile of dirt can have setbacks 22 23 similar to or less than other things that you are addressing, then you can do what you want to with 24 25 it.

Page 3255 COMMISSIONER BALCH: And that other thing 1 2 is the liquid that would be in a pit. I would make 3 that connection. MR. SMITH: 4 Okay. COMMISSIONER BALCH: And those are the 5 6 pages that you want to look at for the citation. 7 MR. SMITH: I will find them in the transcript. 8 9 CHAIRPERSON BAILEY: Commissioner Bloom. you were going to make a comment? 10 11 COMMISSIONER BLOOM: I am fine, thank you. 12 CHAIRPERSON BAILEY: Okay. So we are back to the formatting of (3) to 13 14 reflect the commission's decisions of 100 feet of 15 the watercourse, 200 feet of lakebed, within 100 feet of a wetland, which is consistent with the 100 16 feet that we have for the temporary pit. 17 18 COMMISSIONER BALCH: And within a 100-year floodplain, nobody asked anybody about that, so 19 there it is. 20 21 CHAIRPERSON BAILEY: Okay. So can we go 22 on to paragraph (4) now, or do we... 23 COMMISSIONER BLOOM: Yes. We can move on, 24 yes. 25 Okay. CHAIRPERSON BAILEY: The suggested

Page 3256 language is for locations -- siting locations for a 1 2 below-grade tank. The first one is within 100 feet of a 3 continuously flowing watercourse or any other 4 5 significant watercourse or lakebed, sinkhole, or playa lake, unless there is a variance given. 6 The hundred feet that is suggested is 7 equivalent to the temporary pit in A (b). 8 9 COMMISSIONER BALCH: Mr. Hasely testified -- I'm going to guess it was for a 10 significant amount of time. 11 12 To summarize his testimony, starting at 13 page 152 and ending at page 205 of the transcript --14 I can give you specific citations if you want. 15 It had to do with the purpose of the tanks, which is primarily the below-grade range. 16 He talked about siting on page 167. 17 Closure, which we are not talking about at 18 this time. 19 And his testimony was that a tank is 20 21 inherently more protected than a pit; therefore, 22 having it share setbacks for a pit as it comes to current Rule 17, was unreasonable. 23 24 And that's really all the testimony that 25 we have. He was really the only one who testified

Page 3257 about tanks. There was not a lot of discussion 1 2 about that. With that said, I think 100 feet is 3 protective for a tank, much as a temporary pit. 4 We 5 found that 100 feet was protective. I guess that's probably conservative, 6 7 because the pit is going to have a berm and other features, which -- I'm sorry, a tank, not a berm. 8 9 If there is a puncture in it, fluid will be leaking in that area around the tank. 10 11 CHAIRPERSON BAILEY: So, Commissioner 12 Bloom? It was --13 COMMISSIONER BALCH: Essentially, between 14 line 52 and page 205 -- or page 152 and page 205 of the transcript, where Mr. Hasely was testifying 15 about below-grade tanks, he covered issues 16 surrounding siting and the appropriateness of those 17 sitings. 18 His testimony can be boiled down to a tank 19 is inherently more protective than -- it's not a 20 pit. And since we, as a commission, determined that 21 100 feet was safe for a temporary pit, then 100 feet 22 23 is definitely safe for a more protective tank. 24 COMMISSIONER BLOOM: You said that there 25 is a berm?

Page 3258 COMMISSIONER BALCH: Well, there's a --1 no, there's not necessarily a berm for a below-grade 2 tank. But you have a tank, and then you have that 3 4 empty space. The empty space is what catches anything that would come from the -- from the tank. 5 6 COMMISSIONER BLOOM: But there are sides 7 and there's a pad underneath and... COMMISSIONER BALCH: 8 So... 9 CHAIRPERSON BAILEY: Looking at (a), we have already agreed that we could strike the 10 language after the paragraph -- the parentheses mark 11 behind "mark." So because we are covering the 12 criteria for a change approved -- a variance change 13 approved by the division district office, so that 14 the criteria on making any decisions of a variance 15 16 is already covered as far as this below-grade tank location is concerned. 17 Shall we go ahead and strike from "unless" 18 19 all the way down to the end of that sentence? 20 COMMISSIONER BALCH: Yes. 21 And in the same section of testimony Mr. Hasely also addressed it. He addressed all the 22 23 siting criteria. And he was asked directly if it was protective, and he said yes, for the reasons 24 stated for our discussion in (a). 25

Page 3259 1 CHAIRPERSON BAILEY: For temporary pits we have a setback of 200 feet from a private, domestic 2 3 water well or spring. Here again, we need to change 4 the location of the word "spring." So it would be within 100 feet of a spring or a private, domestic 5 fresh water well used for public or livestock 6 7 consumption, because of the testimony of Dr. Neeper, who said that a spring did not need to be used in 8 order to be protectable. 9 Now the question is, for a temporary pit, 10 we have 200-foot setback. 11 12 For a permanent pit we have 500-foot setback. 13 14 We changed the distance setback for a 15 private, domestic water well based on language in the definition for a wellhead protection area. 16 And that was our justification for making it 200 feet, 17 because the wellhead protection area means the area 18 within 200 horizontal feet of a domestic water well, 19 et cetera. 20 So it's logical, to me, to have this 21 setback for a tank the same as for a wellhead 22 protection area as defined in the OCD regulations. 23 24 COMMISSIONER BALCH: I think even though it's more protective, if you already have a 25

Page 3260 1 definition 200 feet you should stick to that. 2 CHAIRPERSON BAILEY: Do you agree with 3 that, Commissioner? 4 COMMISSIONER BLOOM: I would agree with 5 that. 6 CHAIRPERSON BAILEY: All right. So (b) would say "200 feet of a spring or private, domestic 7 fresh water well used for public or livestock 8 9 consumption." 10 (c) has the hundred-foot setback for a wetland, which is consistent with our setback for a 11 temporary pit pile of dirt. 12 Do we agree with the hundred feet setback 13 14 for a below-grade tank? 15 COMMISSIONER BALCH: It should be more 16 than protected. 17 COMMISSIONER BLOOM: I mean, I quess I 18 have some reservations or somewhat of a quandary. It's about 30 yards to a wetland. 19 CHAIRPERSON BAILEY: A tank is surrounded 20 21 by a berm. And if there are certain requirements for the volume, it needs to be one and a half times? 22 23 COMMISSIONER BALCH: It's designed to 24 capture the entire volume of the tank. 25 CHAIRPERSON BAILEY: Okay.

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Page 3261 1 COMMISSIONER BLOOM: And then it has the liner inside, which is 30 or 60 mil, depending. 2 COMMISSIONER BALCH: Something like that. 3 COMMISSIONER BLOOM: I think I found that. 4 COMMISSIONER BALCH: And then this goes 5 back to the risk and response time. 6 7 Basically, you have adequate time to respond to that catastrophic failure of the tank 8 9 before it can escape that. 10 COMMISSIONER BLOOM: Again, the liner is something consist with 30 mil flexible PVC or 60 mil 11 HDPE liner, or equivalent liner material. 12 13 Yes, I believe that would be acceptable. 14 CHAIRPERSON BAILEY: Okay. So we will maintain that hundred feet. 15 16 And then the next question has to do with where -- depth to groundwater, we have eliminated 17 that, is less than 10 feet below the bottom of the 18 Is there discussion on the 10-foot level? 19 tank. COMMISSIONER BALCH: 20 There's a -- I can give a citation on page 152, I think, if you want to 21 have something on the record. 22 23 This is Mr. Feldewert asking Mr. Hasely --24 asking Mr. Hasely about below-grade tanks and if he could describe for the commission what their 25

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1 purposes were in the oilfield.

2

And the answer was that:

3 "First and foremost, it's, as in the name, 4 it's a tank. Not a pit, it's a vessel. The exact 5 construction is what is set on the surface of the 6 ground. And then the other part of the definition 7 is it's below grade. So it's located down in an 8 excavation.

9 "The main reason to have it below grade is 10 to allow gravity drainage, like I think Mr. Gantner 11 mentioned.

12 "And the main reason to have it blow grade 13 is to allow gravity drainage. A lot of the wells in the northwest, low pressure -- are low pressure, and 14 15 so draining water off the separators, draining water off of -- water that gets to the produced oil tank, 16 gravity drainage allows that to go and not sit in 17 the pipe, which causes freezing problems and other 18 operational problems. So it's a below-grade tank, 19 20 and it's used to collect and store the water, 21 produced water." 22 So it's primarily water, produced water. 23 It was clear at 11:30 p.m. It's not so 24 clear at 4:20. 25 It goes on to talk about the stretching of

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Page 3263 the -- the size, roughly 5,000 gallons or so on 1 2 average. Okay. On page 167 or so Mr. Feldewort was 3 4 asking about the changes to siting requirements. 5 On page 168, line 16, Mr. Feldewort asked him: 6 "Would you agree that because of the 7 nature of the vessel that below-grade tanks should 8 9 have different siting requirements than temporary pits?" 10 11 We talked about this a little while ago. "Yes, I feel that way. As I mentioned in 12 13 the beginning, it's a tank. It's not an earthen 14 pit. It's the same vessel." 15 It's in an excavation. You have added a layer of protection to the environment. 16 The next question was: 17 18 "Will this allow you flexibility?" It may have been in Mr. Gantner's 19 testimony where I read this, and I didn't highlight 20 21 it, unfortunately. 22 But there was discussion in the testimony 23 that -- there was discussion in testimony that 24 because of the siting requirements of the 25 below-grade tanks being similar to that of a

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Page 3264 temporary pit, that extra construction was needed in 1 order to have gravity drainage if your site was too 2 close to the level of groundwater. 3 4 And that caused an excessive amount of Now, this is definitely Mr. Gantner's 5 cost. 6 testimony. That was the primary concern from 7 Mr. Gantner, was that the siting requirements for tanks was overly restrictive considering the 8 9 additional protection that they gave compared to a temporary pit. 10 And because of that, additional costs were 11 12 incurred by operators in certain areas due to low pressure and gravity drainage requirements for the 13 14 use of a tank, which is to remove water from 15 separators and oil storage tanks. 16 CHAIRPERSON BAILEY: I think if I talked about the current OCD rule, to give some comfort 17 18 level here, 19.15.18.16 is titled "Tanks, Oil Tanks, Firewalls, and Tank Identification." 19 20 It says: 21 "No person shall restore or retain oil in earthen reservoirs or in open receptacles. Dikes or 22 firewalls are not required except an operator shall 23 erect and maintain firewalls around permanent oil 24 25 tanks or tank batteries that are within the

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Page 3265 corporate limits of a city, town, village, or where 1 such tanks are closer than 150 feet to a producing 2 oil or gas well or 500 feet to a highway or 3 inhabited dwelling or closer than a thousand feet to 4 5 a school or church or where the tanks are so located that the division deems them an objectionable 6 hazard. 7 "Where firewalls are required, firewalls 8 shall form a reservoir having a capacity one-third 9 larger than the capacity of the enclosed tank or 10 tanks." 11 12 So I believe that might add some comfort level. 13 14 COMMISSIONER BLOOM: Thank you. In terms of horizontal proximity? 15 16 CHAIRPERSON BAILEY: Yes. 17 COMMISSIONER BLOOM: Yes. COMMISSIONER BALCH: Okay. The Gantner 18 citation that I just made from memory is actually on 19 20 page 62, starting at line 9 and going into -- going 21 to the end of that page, line 25. 22 CHAIRPERSON BAILEY: Is there a distance, Commissioner Bloom, that you would feel more 23 comfortable, such as 25 feet? 24 25 COMMISSIONER BLOOM: I think that would

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Page 3266 1 work for me. 10 feet is just too much proximity to 2 groundwater. But 25, I could see where that would -- where the liner and the tank would be a 3 protective system, coupled with the automatic 4 5 shutoff. 6 COMMISSIONER BALCH: So the analogy is 7 yes, the tank is more protective in and of itself. However, if it's breached, you are then dealing with 8 a temporary pit situation, and you want to match 9 that language for temporary pits? 10 COMMISSIONER BLOOM: Not that it matches. 11 12 But... 13 COMMISSIONER BALCH: Well, it had the same 14 distances that we have established for low chloride fluids, but not for other fluids. 15 16 COMMISSIONER BLOOM: Correct. COMMISSIONER BALCH: I think that 10 feet 17 is protective, but 25 feet does not bother me 18 19 either. I think that the risk is, is you -- when you do impact the flexibility that Mr. Gantner, and 20 21 then later Mr. Hasely alluded to, however, there is 22 the possibility of a variance, so that could be 23 dealt with on a -- at the district level and hopefully be resolved relatively easily. 24 25 CHAIRPERSON BAILEY: So we could change

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Page 3267 the 10 feet to 25 feet. And then would that make 1 2 that entire Section (4) acceptable to all three commissioners? 3 MR. SMITH: Let me ask you if I may, 4 before you do that. 5 6 Do you need the adjectives "private and 7 domestic" in (4) (a)? COMMISSIONER BALCH: We removed "private 8 and domestic" when we were talking about temporary 9 pits. 10 11 CHAIRPERSON BAILEY: Yes, we did. So I would not mind if that was removed, so that it would 12 13 apply to any fresh water well used for public or 14 livestock consumption. 15 COMMISSIONER BALCH: "Spring or fresh 16 water well." 17 CHAIRPERSON BAILEY: Exactly. 18 COMMISSIONER BLOOM: So we delete "private and domestic"? 19 CHAIRPERSON BAILEY: 20 Yes. 21 Did we vote on Section (3) concerning 2.2 dirt? 23 COMMISSIONER BALCH: I don't think we did. 24 CHAIRPERSON BAILEY: I don't think we did. 25 Let's go back to (3) and vote on that so

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Page 3268 that we can maintain a nice orderly approval, 1 because we'll be breaking pretty quick here. 2 COMMISSIONER BLOOM: Yes, Madam Chair. 3 Ι move that we vote on Section (3). 4 CHAIRPERSON BAILEY: Do I hear --5 COMMISSIONER BALCH: I will second the 6 motion. 7 CHAIRPERSON BAILEY: Okay. 8 Commissioner Bloom voted --9 COMMISSIONER BLOOM: I would move that we 10 vote on Section (3), which indicates setbacks for 11 12 material excavated from a pit's construction. 13 CHAIRPERSON BAILEY: Okay. Do you move to 14 accept the 100-foot distance for watercourses and lakebeds, et cetera, as written up? 15 16 COMMISSIONER BLOOM: 200 feet from a lakebed, 100 feet from a wetland within a 100-year 17 floodplain. 18 19 CHAIRPERSON BAILEY: Okay. So we have 200 feet -- no, it's 100 feet for continuously flowing 20 21 watercourse. 22 COMMISSIONER BALCH: 200 feet from a 23 lakebed, sinkhole, or playa; 100 feet from a 24 wetland; or within a 100-year floodplain. 25 I would second the motion.

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Page 3269 CHAIRPERSON BAILEY: All those in favor? 1 2 Aye. COMMISSIONER BALCH: 3 Aye. COMMISSIONER BLOOM: 4 Aye. CHAIRPERSON BAILEY: All of those -- no 5 6 one opposed. 7 Now for subsection (4) that we have just discussed, do I hear a motion to accept the changes 8 as we have indicated on the draft document? 9 10 COMMISSIONER BLOOM: Yes, I so move. 11 COMMISSIONER BALCH: I will second that. 12 CHAIRPERSON BAILEY: All those in favor? 13 Aye. 14 COMMISSIONER BALCH: Aye. 15 COMMISSIONER BLOOM: Aye. 16 CHAIRPERSON BAILEY: All right. Now, we can go to Section B concerning an 17 18 emergency pit. 19 The suggestion has been -- well, we have 20 changed the definition of emergency pit to reflect a 21 pit that's constructed in an emergency. So there 22 would really be no change from B at all. COMMISSIONER BALCH: Well, there's no 23 24 suggested change either. 25 CHAIRPERSON BAILEY: Right. So now we can

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Page 3270 move to C, where the first suggestion is in C (1) 1 2 that an operator shall not implement an on-site closure method where groundwater is less than -- and 3 suggested changes from 50 to 25 feet below the 4 bottom of the buried waste. 5 COMMISSIONER BLOOM: And that --6 7 originally, "unconfined" was in there? 8 CHAIRPERSON BAILEY: Uh-huh. But we are deleting the unconfined limitation. 9 COMMISSIONER BLOOM: Correct. Okay. 10 11 CHAIRPERSON BAILEY: So the question 12 before us is whether it should be 50 feet or 13 25 feet. 14 COMMISSIONER BALCH: We have a whole Section 19.15.17.13 on closure and site reclamation 15 requirements. 16 17 CHAIRPERSON BAILEY: Yes. COMMISSIONER BALCH: How is this section 18 distinct from what will be discussed there? 19 20 CHAIRPERSON BAILEY: This is in -- this 21 has to do with the depth to water. It doesn't have 22 to do with horizontal. Okay. 23 C (1) has vertical distance, where C (3) 24 has horizontal distance. In fact, C (3), (4), (5), 25 (6), (7).

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Page 3271 COMMISSIONER BLOOM: And then the -- I 1 believe the closure -- the section on closure we get 2 more into --3 COMMISSIONER BALCH: I believe we can 4 tackle this section then. 5 CHAIRPERSON BAILEY: Do we want to have 6 7 C (1) discussion now or does that properly belong in the latter section having to do with closure? 8 Because this one has to do with vertical distance 9 rather than horizontal distance, as (3) through 10 (10). 11 COMMISSIONER BALCH: Well, it appears that 12 13 all of the site requirements -- and now we are at 14 the point where we are talking about site requirements for on-site closure. 15 16 CHAIRPERSON BAILEY: Yes. 17 COMMISSIONER BALCH: We're covering this section. 18 So... 19 COMMISSIONER BLOOM: If I may, is there 20 anything else we could spend the remaining time on? 21 This maybe would be a good place to start on Monday, because I believe the only thing we have left is 22 23 closure at that point, correct? 24 CHAIRPERSON BAILEY: Closure and 25 reclamation.

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Page 3272 1 COMMISSIONER BLOOM: Yeah. CHAIRPERSON BAILEY: Closure and 2 reclamation. 3 COMMISSIONER BALCH: We could look at 4 closure and reclamation. 5 CHAIRPERSON BAILEY: It's 4:30. 6 We have --7 COMMISSIONER BLOOM: I'm not sure my brain 8 can make the leap at this point. 9 10 COMMISSIONER BALCH: Section 13 was completely rewritten from the original. 11 12 CHAIRPERSON BAILEY: Exactly. What we can 13 do is stop at this point, come back to this on 14 Monday at 9:00, where we will talk about on-site 15 closure methods that are presented here in C, along 16 with the other sections that we have not yet --COMMISSIONER BALCH: I think the only 17 section we haven't looked at is 13. 18 CHAIRPERSON BAILEY: So possibly if we 19 think about all of this over a period of time and 20 21 come back on Monday at 9:00. 22 COMMISSIONER BALCH: I think that's a good 23 break point, because we are moving from --24 CHAIRPERSON BAILEY: Okay. Yes. Why 25 don't we highlight in yellow -- just that line for C

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Page 3273 in yellow. 1 2 COMMISSIONER BALCH: That is where we 3 stopped. CHAIRPERSON BAILEY: Yes. 4 COMMISSIONER BALCH: We are shifting gears 5 from the horizontal testimony, which was primarily 6 7 experience based, to the vertical siting which was largely modeling based. 8 So... 9 CHAIRPERSON BAILEY: For the first two portions, but not for the succeeding. 10 11 COMMISSIONER BALCH: I suspect there will 12 be a lot of discussion on the vertical portion. CHAIRPERSON BAILEY: I'm sure there will 13 14 be. 15 So we are -- we will continue on Monday. We are done for the day today. 16 (Proceedings concluded.) 17 18 19 20 21 22 23 24 25

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<ul> <li>I, Paul Baca, RPR, CCR in and for the</li> <li>State of New Mexico, do hereby certify that the</li> <li>above and foregoing contains a true and correct</li> <li>record, produced to the best of my ability via</li> <li>machine shorthand and computer-aided transcription,</li> <li>of the proceedings had in this matter.</li> </ul> PAUL BACA, RPR, CCR Certified Court Reporter #112 License Expires: 12-31-12 10 12 13 14 15 16 17 18 20 21 22 23 24	1	CERTIFICATE	ruge 527 r
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