

091913 water quality

0001

BEFORE THE WATER AND WASTE ADVISORY BOARD  
STATE OF WYOMING

1  
2  
3  
4  
5  
6  
7  
8  
9

-----  
HEARING TO DISCUSS PROPOSED REVISIONS TO WATER QUALITY  
RULES AND REGULATIONS CHAPTER 25 AND CHAPTER 15 AND  
SCHEDULE FOR WATER QUALITY RULES AND REGULATIONS RULE  
PROMULGATION  
-----

TRANSCRIPT OF HEARING PROCEEDINGS

10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Transcript of Hearing Proceedings in the above-entitled matter before the Water and Waste Advisory Board, commencing on the 19th day of September, 2013, at 11:00 a.m. at the Teton County Commissioners Meeting Room of the Teton County Administration Building, 200 South Willow Street, Jackson, Wyoming, Ms. Marjorie Bedessem presiding, with Board Members Mr. Calvin Jones, Mr. David Applegate, Ms. Lorie Cahn and Mr. Klaus Hanson in attendance.

Also present were Mr. Frank Strong and Ms. Gina Johnson. Appearing telephonically were Mr. Rich Cripe, Mr. Bill Tillman and Mr. Seth Tourney from DEQ.

0002

P R O C E E D I N G S

(Hearing proceedings commenced  
11:00 a.m., September 19, 2013.)

CHAIRMAN BEDESSEM: I'd like to reconvene the Water and Waste Advisory Board meeting, third quarter meeting. We'll continue on with the Water Quality Division rules. However, I will point out it's 11:00 now. At about noon, we will take about a half-hour break to grab a quick lunch. That's a compromise with trying to move forward but not place you in duress.

MR. STRONG: That would be great.

CHAIRMAN BEDESSEM: I'll turn it over to you guys. Is Kevin on the line?

MR. STRONG: Rich, is Kevin on the line there with us?

MR. CRIFE: No. Kevin is in a meeting. So it's just Rich and Bill Tillman here on this end.

CHAIRMAN BEDESSEM: Just making sure that our court reporter here has documented who is with us.

MR. STRONG: Great. I'm Frank Strong with Wyoming DEQ. We have Gina Thompson. And we're here today to discuss the proposed revisions to Chapter 25 that resulted from the public meeting that we had three months ago in June and the comments received by the board here.

0003

Since the last meeting, we have addressed and resolved the remaining issues in Chapter 25 that had been identified. We prepared written responses to the oral comments received, and they have been included in the packet that you guys have. We have reviewed and

6 corrected the grammatical and formatting errors that were  
7 identified by Ms. Cahn and Madam Chair.

8 We've had several discussions with infiltrator  
9 systems. If you recall at the last meeting, they had  
10 concerns on whether the tanks could comply with the  
11 proposed regulations. After several discussions with  
12 them, we have identified that they are capable of meeting  
13 the regulations with no real issues to their product  
14 line. That was their real concern.

15 At this time I'd like to refer you to the  
16 red-line version that discusses the -- it's a draft,  
17 8/19, comparing changes made to a version presented 6/14.  
18 Throughout this red-line version, we have corrected  
19 several locations for capitalization, formatting and  
20 grammatical errors. As we walk through these revisions,  
21 it's not my intent to discuss each one of those. I think  
22 those were identified and easily corrected. But at any  
23 point, if you have a question on something we did that I  
24 may have skipped as a grammatical error, feel free to  
25 flag me down, and we'll be happy to discuss them.

0004

1 Starting in Section 3, line 110, which is on  
2 page 3, here we had an error in our numbering system. We  
3 skipped from (y) to (aa) and forgot (z), so we have  
4 corrected that. In Section 6, line 225, which is on page  
5 6, we did some clarification that the four-foot  
6 requirement is to the depth of the high groundwater. As  
7 written, it was confusing what the reference point was.

8 On lines 228 through 230 on that same page,  
9 we're moving the reference to Figures 1 through 6. We're  
10 going to remove these from the regulations and the  
11 following sentence which refers to the --

12 MR. APPLGATE: I have a question. I  
13 assume you want us to address these as you go. And  
14 again, I apologize. I told Lorie I think I only missed  
15 one of these meetings in the several years I've been on  
16 it. And I'm falling behind, so I'm going to have to  
17 catch up.

18 So, when you removed these figures, they were  
19 put in I assume originally as an aid to meeting this  
20 particular design requirement?

21 MR. STRONG: Yes.

22 MR. APPLGATE: And now I guess based on  
23 comment at the last meeting, I'm trying to understand why  
24 you removed and what --

25 CHAIRMAN BEDESSEM: It's put in a

0005

1 guideline now.

2 MR. STRONG: Yes. As I was saying, we're  
3 going to remove these figures and place them into the  
4 application package, where we'll have details,  
5 instructions and examples on how to use them. One of the  
6 comments that we got is it was not clear how to utilize  
7 these charts. It was difficult for them to understand.  
8 So we felt it was best to put it in the guidance document  
9 for the application, where it had better walk-through for  
10 them to utilize it.

11 And by no means is this the only way it can be  
12 calculated. It can be done through several different  
13 methods by engineers. But this is meant for the  
14 homeowners to have a guideline to utilize for determining  
15 groundwater mounding.

16 MR. APPLGATE: And I have one more

17 question again, just to help me understand  
18 philosophically the first set of rules. It has to do  
19 with this is a permit -- it defines permit by rule. And  
20 I'm trying to understand. If you meet the requirements  
21 of this document -- and again, I have no experience with  
22 septic systems, so this is like hitting --

23 CHAIRMAN BEDESSEM: You don't have your  
24 own?

25 MR. APPLGATE: I do not. My

0006

1 father-in-law has one up in a cabin. I'm not sure how  
2 that was designed. But permit by rule, I guess what it  
3 means is if you meet these requirements, you don't have  
4 to get a permit. Correct?

5 MR. STRONG: No. In permit by rule,  
6 there's one component in here that can be done permit by  
7 rule. The majority of the items, the on-site wastewater  
8 systems, privies, holding tanks do require a permit. We  
9 have one section, and I'm just drawing a blank on it as  
10 you ask me this --

11 MR. APPLGATE: So, when I read the  
12 definition of permit by rule, it says what it is. A  
13 facility which is permitted by rule must meet the  
14 requirements found in this chapter.

15 CHAIRMAN BEDESSEM: Which does not require  
16 either an individual or a general permit.

17 MR. APPLGATE: Is it referring to this  
18 Chapter 25 in that definition?

19 MR. STRONG: There are certain components  
20 in Chapter 25 saying if you meet the requirements  
21 established in this chapter, you can do permit by rule.

22 MR. APPLGATE: So I kind of felt like I  
23 would come at this chapter like your typical landowner,  
24 totally oblivious. So I'm trying to understand when you  
25 need a permit and when you don't by each of these

0007

1 sections. Now, feel free to -- I don't want to take time  
2 to --

3 MS. CAHN: No. I have a question about  
4 what's the difference between permit by rule and what we  
5 now have for privies? Because I know it's different.  
6 And it's not clear how it's different, so I have  
7 questions.

8 CHAIRMAN BEDESSEM: Privies are a general  
9 permit.

10 MR. STRONG: Yes.

11 CHAIRMAN BEDESSEM: But is there a  
12 description for a general permit?

13 MR. STRONG: The requirements for a  
14 general permit are covered under Section -- or, Chapter  
15 3. And that's where it establishes that we have the  
16 authority to do a general permit on on-site wastewater  
17 systems. The permit by rule section, I'm going to ask  
18 for some help, Rich or Bill. Do you remember which item  
19 was permit by rule?

20 MR. CRIPPE: I'm having a hard time hearing  
21 you. Could you restate that maybe into the microphone?  
22 (Pause in proceedings.)

23 CHAIRMAN BEDESSEM: I recall the question  
24 was what component in this chapter is a permit by rule?

25 MR. STRONG: Did you get that, Rich?

0008

1 MR. CRIPPE: I don't believe we have one in  
Page 3

2 there that I recollect that would be a permit by rule in  
3 this chapter. It's been discussed on the privies and  
4 things. But the direction that we're taking on this is  
5 that privies would be done by general permit. Permit by  
6 rule typically means that if you have a set of conditions  
7 that are laid out, if you follow those conditions, then a  
8 permit would not be required in that situation.

9 CHAIRMAN BEDESSEM: So do you need to do a  
10 word search in this chapter and see if permit by rule is  
11 referenced anywhere, and if not, delete it? And maybe  
12 you need a reference that general permit is described in  
13 Chapter 3 if that's what is referenced.

14 MR. APPLGATE: And let me add, I guess I  
15 just was thrown off. My entire review was sort of thrown  
16 off. Because I read the definition on page 25-3 that  
17 says, permit by rule means an authorization included in  
18 these rules which does not require either an individual  
19 permit or a general permit. A facility which is  
20 permitted by rule must meet the requirements found in  
21 this chapter, but is not required to apply for and obtain  
22 a permit to construct and operate a facility.

23 So, when I read that paragraph, I assumed that  
24 everything that I was reading in this chapter was a  
25 permit by rule and that you simply had to meet these

0009  
1 requirements. And then, of course, I am going to have a  
2 series of questions about what needed to be submitted and  
3 when.

4 MR. STRONG: That was not our intent, so  
5 we need to get that clarified. Our intent was that these  
6 items do require a permit.

7 MR. APPLGATE: So every septic system  
8 requires a permit, it sounds like.

9 MR. STRONG: Correct.

10 MR. APPLGATE: And every drain-water  
11 system?

12 MR. STRONG: Correct.

13 MS. CAHN: And every privy.

14 MR. STRONG: Correct.

15 CHAIRMAN BEDESSEM: The privy is a general  
16 permit.

17 MS. CAHN: So I need to understand  
18 which -- first of all, let's go over, what's the  
19 difference between a general permit and a permit by rule?

20 MR. STRONG: A general permit has been  
21 established by Chapter 3, that we can issue and we have  
22 a -- we issue a notice of coverage under that general  
23 permit. In Chapter 3 it specifies that public water  
24 system improvements, components of that, on-site  
25 wastewater systems. Wastewater system improvements fall

0010  
1 underneath that general permit criteria that can be  
2 issued.

3 Items that fall outside that general permit  
4 that are identified in Chapter 3 are required to give an  
5 individual permit that has a similar application process  
6 but a different approval process that DEQ must follow.  
7 It's the way Chapter 3 was set up.

8 Rich, could you help me out on this?

9 MR. CRIFE: Everything in Chapter 25, in  
10 my understanding -- and we'd have to do a word search  
11 just to make sure -- should require a general permit.  
12 Anything that goes above and beyond what Chapter 25 would

091913 water quality

13 be doing, like lift stations, things of that nature,  
14 would push it into what would be an individual permit.  
15 And these are spelled out in our general permit things  
16 that we have actually out on our web page as to what  
17 those requirements are. But typically everything that's  
18 in 25 should be covered by a general permit, which would  
19 be a notice of coverage.

20 MR. STRONG: And to give you guys an  
21 example, a traditional septic system with a leach field  
22 would fall under the general permit. But if it was an  
23 area where we had additional requirements for advanced or  
24 enhanced treatment, aeration, something like that that  
25 isn't specifically covered in Chapter 25 on how to design

0011  
1 an aerated septic system, that would fall under  
2 individual permit. That would require a PE to prepare,  
3 submit the plans, where the general permit would be  
4 covered -- under this application process, it would not  
5 require a PE to prepare the plans and specs.

6 CHAIRMAN BEDESSEM: But the general permit  
7 still requires an individual application. It's just the  
8 approval process is different and doesn't necessarily  
9 require --

10 MS. CAHN: So walk me through. If I was a  
11 homeowner that wanted a privy on my property, what are  
12 the two different steps I'd go through? Right now it's  
13 general permit. And if it was permit by rule, which is  
14 what we requested at the last meeting, explain to me how  
15 those -- the process for the homeowner would differ.

16 MR. STRONG: A privy, as we have presented  
17 now, would require a permit. So, in this document, we  
18 reference an application package that we'll have on our  
19 website. The homeowner would fill it out, list the  
20 specifics on where they're locating the privy, that  
21 they're meeting all the requirements. They would submit  
22 it to DEQ, or in a situation where we have a delegated  
23 county, to the delegated county.

24 MS. JOHNSON: So, for instance, here in  
25 Teton County, you have delegated authority here, so your

0012  
1 local delegated office would review that application on  
2 our behalf.

3 MR. STRONG: The application would be  
4 reviewed by the appropriate agency. Comments would be  
5 submitted if we needed it or additional information  
6 requested. The permit would be approved, and a notice of  
7 coverage would be issued. In the situation of a permit  
8 by rule, the homeowner would really have to meet these  
9 requirements and install it. He would not be required to  
10 submit any information to DEQ or the delegated county.  
11 So he could purchase the privy, install it and go forth.  
12 There would be no correspondence with any of the  
13 delegated counties or DEQ.

14 MS. CAHN: And what kind of time frame  
15 does it take for somebody to install a privy, let's say?

16 MR. STRONG: To actually install?

17 MS. CAHN: No. To go through the hoops  
18 that they wouldn't have to do if it was permit by rule.

19 MR. STRONG: For a permit application, we  
20 are required to have our -- the permit turned around  
21 within 60 days during our review process. So obviously  
22 there's times where it's much less than that.  
23 Statutorily, we have 60 days to get it done. Typically

24 they're done quicker than that.

25 CHAIRMAN BEDESSEM: If a county is

0013

1 delegated so that they're doing reviews on a septic  
2 system, would that automatically put them in a position  
3 to be doing reviews on privies?

4 MR. STRONG: Yes.

5 CHAIRMAN BEDESSEM: So, while you have a  
6 60-day, maybe the county does, as well. I know at least  
7 in our county, they happen a lot faster than that.

8 MR. STRONG: When the delegation agreement  
9 is created, there's certain stipulations that have to be  
10 met. I do not know the specifics of every delegated  
11 agreement to be able to specify what the time frame is in  
12 all of them. But it's usually quicker than 60 days.

13 CHAIRMAN BEDESSEM: Yeah. It's way  
14 quicker than that.

15 MR. HANSON: One question. You mentioned  
16 the other process doesn't require anything but to go  
17 ahead with read your documentation. How does the  
18 homeowner know which process he has to follow?

19 MR. STRONG: We'll have it specified in  
20 here. And that's the confusion. We'll get it clarified.  
21 But in here it will specifically say this is a  
22 permit-by-rule component and that no permit application  
23 is required.

24 MS. CAHN: But it won't say that in here  
25 because you don't have a permit by rule.

0014

1 MR. STRONG: If there was a permit by rule  
2 allotted in this section. We have a discrepancy that has  
3 been identified.

4 MR. APPLGATE: So are we changing -- I  
5 have opened this can of worms. Is this Chapter 25 in its  
6 previous version, was it also general permits? Has there  
7 been any change to that?

8 MR. STRONG: No. We've always required  
9 permits for privies, on-site wastewater systems, holding  
10 tanks, lagoons, treatment facilities. They've always  
11 been required.

12 CHAIRMAN BEDESSEM: But they were general  
13 permits.

14 MR. STRONG: And they still are general  
15 permits unless they fall outside the methods established  
16 in Chapter 25.

17 MS. CAHN: And so the change that's been  
18 made to privies now doesn't require an engineer to go out  
19 and design your privy?

20 MR. STRONG: Yeah. I'm going to discuss  
21 that as we go through here. But we can change that.  
22 We're going to create a design package so that if a  
23 homeowner wants to put in a privy, they can follow the  
24 application process, submit and not require to hire a  
25 professional engineer to come out and do a design on

0015

1 their specific site to reduce the burden to them.

2 MR. APPLGATE: You can go through the  
3 detailed comments, but sometimes it helps for us to frame  
4 up some things. So, on greywater systems, were they  
5 previously in Chapter 5?

6 MR. STRONG: Greywater systems were not  
7 previously covered in Chapter 25. That is a new  
8 development.

091913 water quality

9 MS. JOHNSON: Chapter 5?  
10 MR. APPELATE: No. This chapter.  
11 MR. STRONG: 25, yes.  
12 MR. APPELATE: So are all the regulations  
13 that are being proposed for greywater systems new?  
14 MR. STRONG: Yes.  
15 MR. APPELATE: So, in the past, there  
16 could have been greywater systems in Wyoming. They could  
17 be existing right now. And those would have been  
18 developed without any sort of regulatory framework?  
19 MR. STRONG: Correct.  
20 CHAIRMAN BEDESSEM: Unless there was a  
21 local --  
22 MR. CRIPPE: Madam Chair, this is Rich  
23 Cripe. May I interject here? I think we're kind of  
24 going tangential, and I'd like to clear it up, if I  
25 might.

0016

1 What was stated there is not correct. What  
2 occurred previously with greywater systems was they were  
3 required to be permitted previous. At some point -- I  
4 don't recollect what year that was. It was either in  
5 2009 or '10 -- a policy was drafted to do those by a  
6 permit by rule, which received very unfavorable response  
7 by many of the delegated counties because of the  
8 framework and everything that was there.  
9 What is being proposed in this regulation is  
10 that it will require a permit by rule -- or, sorry -- a  
11 general permit. And it lays out the stuff, which is very  
12 consistent with all of the delegated counties. Of the  
13 ones that had concerns on it were Laramie County, Natrona  
14 County.  
15 And so, in the one that we have, yes, we will  
16 require it to be permitted, just as we have prior. The  
17 only thing that was different, if someone decided to go a  
18 route with the greywater where it might go a route of  
19 doing permit by rule. And it turned out to create many  
20 problems for the delegated counties. And we heard that  
21 in many of the responses. And they were very favorable  
22 in going along with this greywater approach that we are  
23 proposing in this regulation.  
24 MR. STRONG: Yeah. That's correct. The  
25 old -- I'm going to say old. The current version of

0017

1 Chapter 25 did not distinguish between greywater and  
2 wastewater. It was all wastewater. So greywater had to  
3 go to the septic tank and leach field or lagoon. It did  
4 not necessarily allow it to go for irrigation or other  
5 purposes.  
6 MR. APPELATE: Can I have one more, I  
7 think, conceptual -- when I went through the comments,  
8 there was a lot of comments by a vendor concerned about  
9 technology -- new technologies. So we've laid out -- I'm  
10 going to this 25-5. By the way, I didn't see any changes  
11 to that section, so I don't think it would require too  
12 much by review.  
13 What I'm trying to understand is, in the  
14 general sense, septic systems have been designed probably  
15 in a particular way for quite a long time. And it  
16 appears like, from the comments, that there are some new  
17 techniques out there. And there was a concern by the one  
18 vendor stakeholder that his system required a PE license  
19 because it had these differences. And the comment that

091913 water quality

20 you guys gave back in multiple cases was, well, you can  
21 get your system approved. There was some process. What  
22 I'm trying to understand is if that process is clear. I  
23 want to understand a little bit better. I think it's  
24 covered here in Section 5. And I'd like to understand  
25 sort of how long it takes. Because I'm not convinced

0018

1 from the comment response that that person's concerns  
2 were addressed. And that's what I'm trying to  
3 understand.

4 So Section 5 -- let me just frame this up a  
5 little bit more. And I think it was RockVale. I don't  
6 know what the company was.

7 MS. JOHNSON: RockVale.

8 MR. APPLGATE: RockVale. And I don't  
9 know anyone from RockVale, and I don't know what system  
10 they're describing. But the problem they're describing  
11 is, hey, we think we have an innovative way to treat the  
12 septic system. We want our system to be competitive.  
13 And we should have rules that allow them a process to  
14 demonstrate that. And I think your position is we do.  
15 So tell me what they need to do in this Section 5 to  
16 demonstrate that their particular system can be approved,  
17 I guess, by you guys and used.

18 MR. STRONG: The process is very similar  
19 to an application for any wastewater system. They would  
20 apply for an individual statewide permit or an individual  
21 specific-location permit, where the plans,  
22 specifications, the requirements for the system are  
23 prepared by a professional engineer and submitted for  
24 review and approval. We have the same statutory  
25 requirement to have that review completed within 60 days

0019

1 of our review time.

2 If they do the case of the statewide permit, we  
3 have to prepare an application package that is versatile  
4 and covers the various areas of Wyoming and the unique  
5 challenges that can be encountered. Once that statewide  
6 permit is approved, individual landowners can utilize  
7 that application package prepared to submit that  
8 particular design for their wastewater system.

9 MR. APPLGATE: So one of the questions I  
10 have -- and I'm not sure if this is their concern. I'm  
11 trying to wrap my mind around this. If a person has sort  
12 of a proprietary -- first off, one of the general  
13 problems I see with leachate systems, you know, a lot of  
14 these performance systems, you can say here's a design,  
15 and if you want to know if it performs, you just go  
16 measure the effluent. Right? It's kind of hard to  
17 measure the effluent on these types of systems.

18 So my question is, if you have a proprietary  
19 system, is there concern about that when you present the  
20 design -- I understand that's an issue, that they somehow  
21 don't want to show all the details of their proprietary  
22 system when they submit it. Why was there concern? Why  
23 hadn't they gone through that process? Why is there this  
24 disconnect between their other concerns and your  
25 response? And I don't know if they're here today to

0020

1 comment on that.

2 MR. STRONG: No, I do not believe they're  
3 here today.

4 CHAIRMAN BEDESSEM: They're not here today



5 because it was specifically stated that public comment  
6 would not be accepted today.

7 MR. APPLGATE: Well, what I'm trying to  
8 do is, I think when we have public comment, there is an  
9 obligation to respond to them in a way that honors their  
10 concerns. And don't take this as too harsh of criticism,  
11 but I did not have clarity. Your response does not  
12 provide me clarity.

13 MR. STRONG: I can say in this particular  
14 instance, we have spent -- we've had several meetings  
15 with this individual to discuss the process and to help  
16 expedite their review process.

17 Rich, do you have a comment?

18 MR. CRIPE: Yes. Madam Chair and board  
19 members, this is Rich Cripe. That actually is not an  
20 accurate statement. And I will provide clarity for you.  
21 Actually, Presby has never, ever followed the process of  
22 what should have been done to do their system as far as  
23 following the statutes of doing a licensed -- with a  
24 Wyoming engineer to do that process. That is very  
25 standard on anything. Even the small wastewater systems

0021

1 and everything in there requires a PE.

2 The way that we've done that mechanism to take  
3 the burden away from homeowners is DEQ has stepped in and  
4 designed two design -- one design package with the small  
5 wastewater system and will do that for the privy system.  
6 This Presby system is new technology. And that is  
7 typically followed by Section 5. We are currently in the  
8 process of working with them and have met with them  
9 several times. So we have not addressed -- we are  
10 addressing that issue.

11 MR. APPLGATE: For clarity, I didn't say  
12 you weren't. I said your written response to comments  
13 did not provide clarity on how you were responding to  
14 that. So that's why I wanted the extra input, meaning, I  
15 wouldn't have known by reading your comments that you had  
16 met with them multiple times or that you were working  
17 through the process with them. So what I'm trying to  
18 understand is if, indeed, their concerns are being met  
19 through a working collaborative process with WDEQ.

20 MR. CRIPE: Yes, they are. And we're in  
21 the process of looking at their documents and will go  
22 forward with developing a policy that can address these  
23 to be permitted. And the reason being is we will have to  
24 work together with the delegated counties to do a joint  
25 review to allow that process to happen. And the reason

0022

1 we are doing that is we are working that way so that that  
2 burden does not go back to the homeowner to have to hire  
3 a PE to do that type of system when that system can be  
4 used. That particular system actually had many problems  
5 up in Sheridan County where they had already had a  
6 problem with groundwater. And it was contributing  
7 nitrates to that.

8 MR. APPLGATE: I think you've answered my  
9 question. I'm not advocating for their system or any  
10 other system. I just, one, wanted to make sure that we  
11 were responding to their concern. It sounds like we are.

12 MR. CRIPE: Yes.

13 MR. APPLGATE: And then my secondary  
14 comment, I think, is in the Section 5, are there -- it  
15 sort of says to submit this information to us. Are there

16 statutory -- do you guys have to respond to them in 60  
17 days, too? Is that the statutory time frame?

18 MR. STRONG: Yes. We have the same  
19 requirement we do on permit reviews. We have to have our  
20 responses back in 60 days, or approve them in 60 days.

21 MR. APPLGATE: I think that answers my  
22 comment. Inherent to this is a time frame that keeps  
23 people working together, and two, the multitude of  
24 comments that particular person had, they are trying to  
25 work through that with you in terms of this Section 5

0023

1 process. Is that fair?

2 MR. STRONG: That is absolutely correct.

3 MR. APPLGATE: Thank you.

4 MR. STRONG: Are there any overall  
5 big-picture questions we need to resolve before we resume  
6 the content revisions that were made?

7 CHAIRMAN BEDESSEM: As far as I'm  
8 concerned, we can go ahead with content revisions, and  
9 then we'll go back to whatever items we're concerned  
10 about.

11 MR. STRONG: I do believe I was on line  
12 228, talking about the figures. And as we discussed  
13 earlier, those figures are going to be removed and  
14 included in the design package to make it easier for the  
15 homeowner to understand the process and how to utilize  
16 those tables when needed.

17 The next content revision was line 236, which  
18 is on page 7. It was identified we had some conflicting  
19 information. The sentence there refers to a not-to-  
20 exceed slope of 25 percent, but the Table 3 puts  
21 restrictions on that. Those are conflicting, so we are  
22 removing the sentence and referring to Table 3 for  
23 maximum allowable slopes.

24 The next revision is line 380 on page 14.  
25 Here, this is a simple word change. We are changing --

0024

1 replacing "isolation" with "setbacks" so we use common  
2 terminology throughout the chapter. Line 445 on page 16,  
3 here we're replacing "should" with "shall" to clarify  
4 that the minimum slope for sewer pipes shall be met.

5 Our next comment revision was line 466. Or,  
6 465, I guess is where it starts. We replaced the last  
7 sentence to provide better clarification of when and who  
8 does review for septic tank compliance. Line 509 on page  
9 17, we removed the last sentence, as it is more of a  
10 comment of how the process works and is not a requirement  
11 of the configuration of a septic tank.

12 Line 591 on page 25-19, we needed to clarify  
13 that the alarm should be triggered when the holding tank  
14 is three-quarters full. It was confusing as written.  
15 Line 649 on page 21, we're removing that entire B note,  
16 as it is a double reference above in line 642 -- or,  
17 excuse me. 645, we refer to sizing shall be done as  
18 follows, and then we repeat ourselves.

19 MS. CAHN: I have a question about just  
20 kind of the -- the tables that follow don't really have  
21 any callout. So, to me, it's not clear now. "Grease  
22 interceptors shall be sized according to the following,"  
23 and it gives A. And after A, should it say "and"? I  
24 mean, is all this stuff, "kitchens," "grease," "garbage,"  
25 is all of that part of A now?

0025

091913 water quality

1 MR. STRONG: Yes. What we're saying is  
2 the minimum volume is 750 gallons unless these  
3 calculations show it needs to be larger.

4 MS. CAHN: But it doesn't say that.  
5 "Unless the following calculations show it needs to be  
6 larger."

7 MR. STRONG: Okay. Any other questions  
8 from the chairman or board?

9 (No response.)

10 MR. STRONG: Next is line 710 on page 22.  
11 This section was revised to clarify the septic tank  
12 seepage must be hauled off or pumped into the new septic  
13 tank. As written, we got confusion.

14 Next is Section 13, line 924, which is on page  
15 27.

16 MS. CAHN: I'm still reading -- I'm back  
17 on 709, reading your language.

18 MR. STRONG: Oh, that's okay.

19 MS. CAHN: Okay. Sorry. Go ahead.

20 MR. STRONG: Line 924, we replaced the  
21 word "level" with "bottom" to clarify where the  
22 measurement is to be taken from. Next is Section 15,  
23 line 1084, which is on page 31. Here we are revising the  
24 reference location. It referred to Section (a)(i). It  
25 needs to refer to Section 6, paragraph (g), which talks

0026  
1 about the horizontal setbacks for septic tanks. On that  
2 same page, line 1100, eleven hundred --

3 MS. CAHN: Can you hold on just a second?

4 MR. STRONG: Absolutely.

5 MS. CAHN: Okay.

6 MR. STRONG: Line 1100, at the last  
7 meeting, we discussed taking a second look at the  
8 requirements for privies, whether it's permit to  
9 construct or permit by rule. And we recommend that it  
10 stays a permit to construct. Some of the justification  
11 is currently we regulate all forms of wastewater,  
12 including sewer lines, treatment plants, lagoons, on-site  
13 wastewater systems, holding tanks, which are very similar  
14 to privies. We have reviewed past privy applications  
15 that we have received to see what kind of compliance we  
16 have with the initial submittal, and the majority of them  
17 required additional revision before they could be  
18 approved for construction.

19 With that, we don't expect that going to permit  
20 by rule, we would see any more success on the initial  
21 application meeting all the requirements.

22 MR. APPLGATE: Going to permit by --

23 MS. CAHN: Now we have permit to  
24 construct, which is a new term.

25 MR. STRONG: A general permit. I

0027  
1 apologize. A general permit. The majority of the  
2 surrounding states require either permits or oversight by  
3 licensed installers for the installation of privies. To  
4 reduce the burden to the homeowners, we have added in at  
5 line 1100 a design package that was prepared by DEQ that  
6 would meet the requirement of a professional engineer,  
7 eliminating their need to actually solicit and hire one.

8 MS. CAHN: Dave, Mr. Applegate, asked if I  
9 was going to go through my comments or any of us go  
10 through our comments as we go. And I think typically  
11 what we do is DEQ makes their presentation, and then

12 we'll go to board comments. So board comments are still  
13 coming.

14 CHAIRMAN BEDESSEM: We just made an  
15 exception for Mr. Applegate in the beginning, who wanted  
16 a big-picture review.

17 MR. STRONG: It's tough, when you miss a  
18 meeting, to get caught up.

19 Section 16, line 1138, which is on page 32,  
20 here we clarify that the required calculations is in  
21 gallons per day. Line 1164 on that same page, we replace  
22 "surcharge" with "shall not overwhelm the absorption  
23 system leading to overland flow." That was just a  
24 clarification.

25 MR. HANSON: Before you go on, on that

0028

1 Section (g) that you added, you just mentioned it would  
2 make it easier for the homeowner. I don't see anything  
3 like that. Where specifically does it say that?

4 MR. STRONG: The design package, we will  
5 have our website give some detailed instructions and  
6 procedures that follow to lay out their privy system and  
7 install it. As it sits right now with the current  
8 Chapter 25, they actually have to go out and hire a  
9 Wyoming professional engineer, pay him money to develop  
10 plans and specs. to install a privy, which is a large  
11 cost burden to the homeowner.

12 MR. HANSON: I see that now.

13 MR. STRONG: Line 1179 on page 33, we  
14 simply redefined "setback" into one word to have common  
15 terminology.

16 With that, those are the major content  
17 revisions we made, as opposed to grammatical or  
18 formatting errors.

19 MS. CAHN: I'm having problems reading  
20 through your red-line strikeout. That's why I asked  
21 about that 6(g) one before, because the parentheses was  
22 missing, was struck out. And then I went and looked, and  
23 the parentheses was in. And in this case now --

24 MR. STRONG: Yes. That entire thing,  
25 "setback" is struck out.

0029

1 MS. CAHN: So why are we getting -- why  
2 are we getting a version that doesn't have something  
3 struck out that was struck out? It looks like it was  
4 added.

5 MS. JOHNSON: Because when the sad  
6 formatter sitting before you was relying on Microsoft  
7 Word, 99 percent of the comparison it did properly. And  
8 so it looked good when I went through. And it missed --  
9 or, it didn't properly call out that and one other place  
10 where it was comparing the document, what we had changed.

11 MS. CAHN: So you're not doing a red-line  
12 strikeout as you go?

13 MS. JOHNSON: No. We thought it would be  
14 helpful for you today not to see the red line. Because  
15 if we did the standard red line, it would be the red line  
16 compared to --

17 MS. CAHN: I guess what I'm thinking,  
18 since I do this myself, is you would take your version  
19 that you gave us last time, except all your changes in  
20 the red-line strikeout, then work with a clean copy that  
21 shows now, as you make the changes on it, you got  
22 red-line strikeouts. You don't have to do document

23 compare.

24 MS. JOHNSON: Yeah. If we hadn't made  
25 changes and then changed our mind, it -- when we turned

0030

1 on that revision component in Word, we would -- we had  
2 changed some things, and then we changed our minds. And  
3 it was getting very layered and very confused. So what  
4 we did was we took the clean version that we showed you  
5 last time and the clean version that we are presenting  
6 and compared that. And it miscalled a couple of items.  
7 And that's why that's confusing. And I apologize for  
8 that.

9 CHAIRMAN BEDESSEM: But miscalled is not  
10 reflected in the clean of the final rule.

11 MS. JOHNSON: The clean copy we reviewed,  
12 and that is properly stated.

13 MR. STRONG: With that, those are the  
14 content changes we made. Everything else was grammatical  
15 or formatting or capitalization, which seemed to be a  
16 nightmare for us. With that, I would ask for any  
17 questions or comments that we need to discuss.

18 CHAIRMAN BEDESSEM: I think there is quite  
19 a few comments with respect to this rule. And so I  
20 originally said that we would take a break at noon. But  
21 if this is the end of your presentation, rather than  
22 stopping in the middle of comments, maybe we break now  
23 and then have comments after lunch, if that's agreeable  
24 to everyone.

25 MR. STRONG: It is your board, ma'am.

0031

1 MS. CAHN: I will say that I received more  
2 comments on this from people calling me. I had more  
3 phone calls than I've ever had in my dozen years on the  
4 board. So I'll have a number of comments. I don't know  
5 how long it will take. But I do have to say I received  
6 more phone calls than I ever have on any other thing in  
7 all these years.

8 MR. HANSON: You're referring to this  
9 section?

10 MS. CAHN: I'm referring to this entire  
11 package. So it may take some time.

12 MR. APPLGATE: I have comments and  
13 concerns, really, just on the greywater section.

14 CHAIRMAN BEDESSEM: Do you want to do your  
15 greywater section first?

16 MR. APPLGATE: It doesn't matter. I just  
17 wanted to frame up what we have to try to answer your  
18 question. Lorie will take an hour, it sounds like. I  
19 will take ten minutes.

20 MR. JONES: I have no comments.

21 CHAIRMAN BEDESSEM: I would be in between  
22 the two. So I would plan on at least a couple hours.

23 MS. CAHN: So maybe 3:00-ish, 4:00-ish. I  
24 don't know how long we have this room for.

25 MS. JOHNSON: I believe we have it until

0032

1 3:00.

2 (Hearing proceedings recessed  
3 11:48 a.m. to 12:42 p.m.)

4 CHAIRMAN BEDESSEM: Let's reconvene the  
5 Water and Waste Advisory Board meeting.

6 MS. CAHN: Do we want to take it section  
7 by section, or do we want to just do one person at a

8 time?

9 MR. APPLGATE: I think section by section  
10 would be quicker, don't you think?

11 CHAIRMAN BEDESSEM: If you don't mind, I'm  
12 going to start first off with making a couple of remarks  
13 about the draft SOPR and just some corrections I would  
14 request. A lot of times we don't read the draft SOPR  
15 until --

16 MS. CAHN: Can you move your microphone?

17 CHAIRMAN BEDESSEM: I was looking at the  
18 draft SOPR. And in particular, I see the motivation for  
19 the change in the rules and so forth and noticed some  
20 language that we might be able to change. So, on page 2,  
21 Item Number 14, it says the language in Section 13,  
22 privies, was moved to Section 15, renamed sand mound  
23 systems and replaced with language. When I read that, it  
24 sounds to me like the language is meaning sand mound, and  
25 I don't think that's what --

0033

1 MS. CAHN: Excuse me. Are you on the  
2 clean version now?

3 MS. JOHNSON: She's on the SOPR.

4 CHAIRMAN BEDESSEM: I'm on the SOPR,  
5 statement of principal reasons.

6 MS. CAHN: You'll have to speak into the  
7 microphone. I didn't hear you.

8 CHAIRMAN BEDESSEM: I'm referring to the  
9 draft statement of principal reasons.

10 MR. HANSON: On Chapter 25.

11 CHAIRMAN BEDESSEM: Yes. It's under the  
12 tab draft SOPR. It's just a page, statement of principal  
13 reasons, but I found the language confusing.

14 MS. JOHNSON: Now that I'm rereading  
15 that --

16 MS. CAHN: Which section are we referring  
17 to?

18 CHAIRMAN BEDESSEM: Item Number 14, where  
19 it says the language in Section 13, privies, was moved to  
20 Section 15. I think you ought to put a period there and  
21 then start over. In Item Number 15, it's a similar kind  
22 of thing. It says, applications for permanent toilets  
23 will now be considered under a proposed revision of  
24 Section 5. That's supposed to be 15, I believe. Because  
25 isn't 5 the section we talked about, the technical

0034

1 process?

2 MS. JOHNSON: I believe that we removed  
3 the language concerning chemical toilets. We used to  
4 have a section on chemical toilets, and it outlined what  
5 the requirements were, but we killed the section  
6 altogether because we don't -- people don't use them.  
7 But if at some point someone did want to apply to install  
8 a chemical toilet, they would do it under Section 5.

9 Is that correct, Frank?

10 CHAIRMAN BEDESSEM: There's no changes in  
11 Section 5.

12 MR. STRONG: What this is trying to state  
13 is, in the current version of 25, there's requirements  
14 for a chemical toilet that someone could apply to  
15 construct. We're removing those requirements because  
16 they haven't been utilized. If in the future someone  
17 does come in and apply to construct a chemical toilet, it  
18 would fall under Section 5 now as an alternative design.

19 CHAIRMAN BEDESSEM: Is there a proposed  
20 revision of Section 5?  
21 MR. STRONG: No. Section 5 is the section  
22 where it talks about applying for a permit to construct  
23 alternative systems not covered in this.  
24 CHAIRMAN BEDESSEM: But this says proposed  
25 revision to Section 5. There is no proposed revision to

0035

1 Section 5.  
2 MR. STRONG: Oh, we understand what you're  
3 getting at now.  
4 CHAIRMAN BEDESSEM: So I just misread it  
5 and thought it was 15 because things were moved around.  
6 But it is Section 5. But there is no proposed revision.  
7 Is that correct?

8 MS. JOHNSON: Right. I believe that my  
9 phrase order is a little --  
10 MR. STRONG: We'll get that corrected. We  
11 understand what you're getting at.

12 CHAIRMAN BEDESSEM: Again, the sentence  
13 after where Section 5 ends, it says language was  
14 replaced. And I'm thinking which language? The language  
15 from Section 14 was replaced with specifications from --  
16 if you would clarify, because I could not follow.  
17 Because here it says, application for permanent toilets  
18 will not be considered unless the chemical toilets are  
19 removed and the language is replaced with the  
20 specification. So, if you just say was inserted in  
21 Section 14 instead.

22 So Item Number 17, where it says Section 16,  
23 commercial, industrial waste was removed, as this type of  
24 waste is regulated by the Water Quality Division UIC  
25 section, it's only regulated by that section if it's

0036

1 being injected into the underground. So it's not the  
2 waste, to my knowledge, that's commercial, industrial  
3 that's regulated under Section 16. But that UIC  
4 disposal, this type of disposal is regulated under  
5 Section 16. So removes this type of waste disposal.  
6 Because there's lots of commercial or industrial liquid  
7 wastes that are addressed under wastewater rules.  
8 Item Number 19, I think the word "to" probably  
9 doesn't need to be in there.

10 Those are the only comments I had on the draft  
11 SOPR. But as far as what this means, as far as your  
12 draft SOPR, is that you're revising these rules for the  
13 most part in response to the request to the governor's  
14 mandates, update and provide the rules, so you're just  
15 updating and simplifying in response to that mandate?

16 MR. STRONG: Actually, in retrospect to  
17 what you're saying, that kind of came afterwards. But  
18 keep in mind, some of this jumped in towards the latter  
19 half of this. This was prompted by the inadequacies that  
20 were in Chapter 25 that needed to be addressed. This had  
21 been in motion. The streamline kind of got joined into  
22 that.

23 CHAIRMAN BEDESSEM: Because this has been  
24 a long process.

25 MR. STRONG: Correct.

0037

1 CHAIRMAN BEDESSEM: But what I'm reading  
2 is there isn't a statutory deadline.

3 MR. STRONG: No.

4 CHAIRMAN BEDESSEM: So that was my take-  
5 away from reading the SOPR.  
6 So now are we going to go through the  
7 strike-and-underline versions? Is that our preference?  
8 MS. CAHN: My comments are in the other  
9 version. I can go back and forth.  
10 MR. STRONG: The clean copy?  
11 MS. CAHN: The clean copy.  
12 CHAIRMAN BEDESSEM: Might have to flip  
13 back and forth. I don't want to make comments on things  
14 that they're not updating.  
15 MR. APPLGATE: Just go section by  
16 section.  
17 CHAIRMAN BEDESSEM: Do you have anything  
18 in Section 1 or 2?  
19 MS. CAHN: (Shakes head.)  
20 CHAIRMAN BEDESSEM: So, looking at Section  
21 3, we talked about the comment with respect to permit by  
22 rule and that you're going to do a word search and check  
23 and see if that's necessary --  
24 MS. CAHN: Can you put the microphone by  
25 you?

0038

1 CHAIRMAN BEDESSEM: -- and whether you  
2 need to have what general permit means in here. And I  
3 don't know if that's defined elsewhere in the water  
4 quality rules. And you can leave it in here if it is.  
5 I am concerned about (z), the pathogens  
6 definition, and was wondering where that definition  
7 actually came from. Because when I read it, I find it  
8 confusing, because it says that pathogens include, but  
9 are not limited to, coliform bacteria. And to me, when I  
10 read that, that implies that all coliform bacteria are  
11 pathogens, which is not the case. Lots of coliform  
12 bacteria in soil, and the vast majority of them are  
13 nonpathogenic. So I find this definition very confusing  
14 and was wondering where it came from and whether it can  
15 be refined.  
16 MR. STRONG: The definition came from EPA.  
17 We looked in the EPA documents.  
18 CHAIRMAN BEDESSEM: The first sentence?  
19 MR. STRONG: The first sentence. And then  
20 the second sentence was our attempt to help identify  
21 different pathogens of concern for the -- where this was  
22 being reviewed by homeowners. If you say pathogen, they  
23 may not know what it is. We're trying to give examples  
24 of that. So maybe when you take a second look at that  
25 coliform bacteria, it will be more specific on what we're

0039

1 trying to identify.  
2 CHAIRMAN BEDESSEM: Yeah. And same thing.  
3 You know, E. coli is a subset of fecal coliform, which is  
4 a subset of coliform. And they're not all necessarily  
5 pathogenic. So that second sentence, I understand the  
6 intent in that you were trying to help the homeowner, but  
7 you have to firm up the language so that it is not  
8 misleading. Because right now it kind of conflicts with  
9 general microbiology.  
10 MS. CAHN: And that gets at one of my  
11 comments. I did a word search for pathogens to see where  
12 you've used it. And the only place you used it is where  
13 I have a comment. And so I'm thinking what got  
14 introduced is the use of the term "pathogens" in one spot



15 and then you needed a definition. So maybe we could  
16 jump -- since it's sort of related, we could jump to  
17 that. And that's in greywater.

18 MR. STRONG: Section 16?

19 MS. CAHN: Yeah. I think it's in  
20 greywater. While we're looking for that, I'm just going  
21 to make a general comment for Gina. I noticed, when I  
22 was looking for where pathogens was used in the document,  
23 I couldn't search the PDF that's on the web. And so  
24 would you try to make sure that when you put these  
25 documents on the web, that they're searchable PDF? So I

0040

1 actually had to call Marge and have Marge do it at her  
2 work and then send it back to me. So that's kind of a  
3 request.

4 MS. JOHNSON: If I might ask, what version  
5 of Adobe were you using?

6 MS. CAHN: I have a fairly new one.

7 MS. JOHNSON: Generally when I print --  
8 what I do is I take a Word document and I print it to  
9 Adobe. And generally, in the version that I use, when I  
10 do that, it automatically does a text conversion, and I  
11 don't have to OCR, do that optimal character recognition.  
12 I don't have to do that as a separate step. So I'm  
13 wondering where in the technical part it went wrong.

14 CHAIRMAN BEDESSEM: Take a look at that.  
15 Because I did convert it over and send it to all the  
16 board members so they can search. And while she's  
17 bringing up the process issue, I kind of wanted to  
18 reiterate so it was in the minutes, my request that you  
19 attach the comments in the form that they were received  
20 from the commenters in the back of the folder. And if we  
21 have successive meetings on the same comments, if you  
22 send us an electronic PDF, then we can refer to that, as  
23 well. Because I, for one, have a tendency to recycle.

24 But also, for Lorie and I, who are representing  
25 the public interest, if we have individuals that contact

0041

1 us and want to talk about their comments, that makes it  
2 much easier for us to reference those comments, as  
3 opposed to when they're divided up in our response to  
4 comments. So I just wanted to make sure that request is  
5 in there.

6 MS. CAHN: And I'm not finding the section  
7 on pathogens. So, when we get there, unless you know  
8 where it is -- it's not in greywater. It must be in  
9 septic. When we get there, I do have a comment on  
10 pathogens. Sorry.

11 MR. STRONG: I was only able to commit the  
12 first ten pages to memory. Apologize.

13 Are there any other comments on Section 3?

14 CHAIRMAN BEDESSEM: I believe there had  
15 been a number of comments regarding the trench size of  
16 three feet or less, and there were comments where people  
17 were saying those infiltrator systems were 34 inches  
18 wide.

19 MR. STRONG: Infiltrator systems are 34  
20 inches wide. But there are other systems out there,  
21 other different manufacturers out there that have 36. So  
22 we use three foot as the maximum width. If it's only 34  
23 inches, we only count 34. Is that what you're getting  
24 at?

25 CHAIRMAN BEDESSEM: I just recall that

0042

1 there were a number of comments where people wanted that  
2 a little bit wider to --  
3 MR. STRONG: There was a comment in  
4 regards to constructibility, that sometimes you have to  
5 excavate wider than that. And that's fine. But we only  
6 count the three-foot wide for the effective trench width  
7 for the calculations.  
8 CHAIRMAN BEDESSEM: But they can build the  
9 trench better?  
10 MR. STRONG: Yes.  
11 MR. HANSON: Could you add the word "at  
12 least" under (kk)?  
13 MS. CAHN: Or "less."  
14 CHAIRMAN BEDESSEM: Yeah, or less. So I'm  
15 fine with that explanation.  
16 MR. HANSON: But you could trench it  
17 wider. Right?  
18 MS. CAHN: No.  
19 MR. HANSON: No, you can't.  
20 MR. STRONG: What that's referring to, in  
21 here we have a definition of a trench system, versus a  
22 bed system. If the actual infiltration area is wider  
23 than three foot, it is considered a bed, and you don't  
24 get the sidewall credit and those kind of things. It's  
25 not referring to the actual trench used for construction.

0043

1 It's referring to the trench style treatment system.  
2 CHAIRMAN BEDESSEM: And what's used in the  
3 calculations --  
4 MR. STRONG: Correct.  
5 CHAIRMAN BEDESSEM: -- that they can feel  
6 comfortable digging a 40-inch-wide trench to be able to  
7 install it.  
8 So I didn't have any other comments with  
9 respect to Section 3. Section 4 on design flows.  
10 MS. CAHN: I just have a consistency thing  
11 when you talk about Table 1 and its design flow rates and  
12 Table 2 and design flow rates. In other parts of this  
13 regulation, you use the term "peak flow." And I think  
14 you're referring to these design flow rates. So I think  
15 I would choose one or the other. Is it a peak flow or  
16 design rate? And make sure you're consistent. So I  
17 would do a search. I don't care which term you use.  
18 MR. STRONG: They are one and the same,  
19 but we will get consistent terminology.  
20 MS. CAHN: I'm ready to move on to  
21 Section -- I don't have anything in 5.  
22 CHAIRMAN BEDESSEM: So I think we're okay  
23 on Section 5. And there weren't significant changes in  
24 Section 5. Any comments? This is the section that you  
25 told me earlier was how permanent toilets would be

0044

1 covered, since the specific chemical toilet rules are not  
2 there?  
3 MS. JOHNSON: Yes.  
4 CHAIRMAN BEDESSEM: Section 6, site  
5 suitability.  
6 MS. CAHN: On line 227, so Section 6(a),  
7 we have small wastewater system shall not be located  
8 beneath, and we have irrigated landscaping. And I just  
9 kind of question why -- I would suggest it could be  
10 irrigated landscaping.

091913 water quality

11 MR. STRONG: The reason you don't want to  
12 install a soil absorption system under irrigation is that  
13 actually impacts and reduces the capacity of that system.  
14 Those are designed to have both infiltration in the  
15 ground. Actually, the vegetation above will help utilize  
16 the moisture and do evapotranspiration. By irrigating  
17 that, you're actually reducing the capacity of the system  
18 and could cause it to fail sooner.

19 MS. CAHN: So, if the amount of  
20 infiltration that doesn't escape through evaporation were  
21 accounted for in the design, could it be put under  
22 irrigated landscaping?

23 MR. STRONG: You'd have to construct a  
24 larger system, yes. With the way we have it now, the  
25 system would be undersized, because that irrigation,

0045  
1 especially if it's over-irrigated, will greatly impact  
2 the treatment process of the leach field.

3 MS. CAHN: It just seems like you say "or  
4 other similarly compacted areas." I don't think  
5 irrigated landscaping is really a compacted area. I  
6 don't think you're driving trucks over it.

7 MR. STRONG: The irrigation process can  
8 cause compaction, water compaction.

9 CHAIRMAN BEDESSEM: How about we just edit  
10 the sentence so it says, "Small wastewater systems shall  
11 not be located beneath irrigated landscaping or  
12 buildings, parking lots."

13 MR. STRONG: Okay.

14 CHAIRMAN BEDESSEM: So just move that so  
15 it's not included.

16 MR. STRONG: Oh, I misunderstood the  
17 comments.

18 MS. CAHN: Well, no. I was also  
19 questioning why -- but I can accept your explanation.

20 In Table 3, where the limits for absorption  
21 systems goes between five and 60, I have to say I'm  
22 fairly confused. Because some places in the regulations  
23 you're allowed one to five minutes per inch, and some  
24 places you're allowed greater than 60 minutes per inch.  
25 And so I'm not -- it's not clear to me -- again, I

0046  
1 couldn't do the search until just a few days ago, so I  
2 didn't have time to go back and check that. But I wanted  
3 to make sure that every time we've got one less than five  
4 or one to five, that is it somehow outside of this  
5 situation?

6 MR. STRONG: Well, if it's less than five,  
7 it requires them to bring in a loam material and liner so  
8 they could -- if they essentially get to a five in a perc  
9 rate, which that 25 percent would apply. Over 60 we  
10 require a professional engineer to be involved, at which  
11 point he would be establishing the minimum slope  
12 requirements of the soil.

13 MS. CAHN: So let's talk about the  
14 faster -- or, slower than -- less than five minutes per  
15 inch. It's confusing. There's no requirement, then, for  
16 a maximum slope on it?

17 MR. STRONG: Well, faster than five, we're  
18 talking like -- maybe that needs a clarification. What  
19 we're intending there, if the perc rate is five minutes  
20 or less.

21 MS. CAHN: So it's one to five?

091913 water quality

22 MR. STRONG: Yeah.  
23 MS. CAHN: Because you don't allow  
24 anything less than one?  
25 MR. STRONG: Yes.

0047

1 MS. CAHN: So let's go one to five.  
2 MR. HANSON: Rather than faster than five.  
3 MS. CAHN: Yeah. Because that would mean  
4 a half a minute per inch.  
5 MR. HANSON: The way it reads now, it's  
6 only from five to six, because six is already defined in  
7 the next.

8 MS. CAHN: No. Faster means a lower  
9 number. It's confusing.

10 MR. APPELEGATE: It means it takes less  
11 time for it to --

12 MS. CAHN: It's not a higher number.

13 MR. HANSON: It's a lower number.

14 MS. CAHN: It's a lower number but a  
15 faster speed. Because it's the percolation -- how many  
16 minutes it takes to perc.

17 MR. STRONG: We will correct that.

18 MS. CAHN: So, if you're slower than 60  
19 minutes per inch, there's no slope, maximum slope  
20 allowed? I mean, there is.

21 MR. STRONG: When it gets to be over 60,  
22 it requires a professional engineer to design, at which  
23 point he can determine maximum allowable slope based off  
24 his design parameters.

25 MR. APPELEGATE: This is the part of the

0048

1 document where it says if you exceed that 60, it no  
2 longer fits these standard designs.

3 MS. JOHNSON: It's in Section 2,  
4 objective. It's the second paragraph. It states, a  
5 Wyoming registered professional engineer will be required  
6 for nondomestic wastewater -- and then I'll skip to the  
7 end -- or standard soil absorption systems with a soil  
8 percolation rate of over 60 minutes per inch.

9 MR. APPELEGATE: So, if it's over 60, you  
10 want to grade that slope.

11 MS. CAHN: Next one is line 276. It's  
12 (f)(iii), so Section 6(f)(iii).

13 MR. STRONG: It would be line 263 on the  
14 strike-and-underline version.

15 MS. CAHN: So then we said you can use  
16 soil texture as an additional tool to confirm the  
17 percolation rate. And it seems to me that it really  
18 should be not in addition, but it should be "or." You  
19 could use the --

20 MR. STRONG: We're not ready for the "or"  
21 yet simply because the soil texturing is a newer  
22 technology, a newer practice. And there have not been  
23 good correlations established between percolation and  
24 soil texturing. And the other issue we have is soil  
25 texturing requires a certified individual to do it, and

0049

1 there's not that many individuals in the state. So that  
2 is something we want to develop in a policy and develop  
3 and improve on, so when we get the knowledge, that we can  
4 put the "or" in and have the proper requirements in  
5 place.

6 MS. CAHN: So give me an example why

7 somebody, then, if they have to do a percolation test,  
8 why would they then also use this additional tool? I  
9 mean, some people believe it's a better, more accurate  
10 test. But if you're going to require them to do a perc  
11 test, which is cheap and simple and easy to do, why would  
12 somebody spend the money and time to get somebody to give  
13 them additional information that could be very useful?  
14 MR. APPLGATE: It's sort of a meaningless  
15 phrase.

16 MR. STRONG: We had several entities  
17 request that we start considering it. And to be able to  
18 do that, we wanted to create a mechanism where we could  
19 start utilizing it and developing our knowledge on it so  
20 it can grow into a valuable tool for on-site wastewater  
21 systems.

22 An example when it could be used is, as an  
23 engineer, when I was involved in the design, I would look  
24 at the perc test, and I'd look at the soil to see that it  
25 made sense, that I got reliable results on the perc test.

0050

1 If you had clay material in which you had a five-minute  
2 perc rate, you'd be like, wait a minute. And that's  
3 essentially what the soil texturing is. But to get it  
4 down to the finite point of saying this soil type has a  
5 perc rate of ten minutes, that science isn't there yet  
6 from the research we've done. So that's why we need the  
7 time to develop it and allow it to be honed before it  
8 becomes an "or" situation.

9 MS. CAHN: It could be something that in  
10 the future, you might be going with soil texturing and --

11 MR. STRONG: Yes. And we plan to create a  
12 policy so we can start doing that, start correlating that  
13 so we have comfort to have it as an "or" statement  
14 instead of "in addition to."

15 MR. APPLGATE: I sort of support not  
16 having it in here, because it doesn't act within the  
17 regulatory framework. What he said they're going to do  
18 is more of a policy-level thing. They're going to  
19 consider it. This doesn't force them to consider it.  
20 And we may never hear back from them on it.

21 CHAIRMAN BEDESSEM: I would question why  
22 would you do a policy if no one is going to do this?

23 MS. CAHN: I would keep it in here  
24 because, from what I'm reading and what I'm hearing from  
25 people is that some states have gone to that. And it

0051

1 could be there is some information out there that it  
2 could be a more accurate test. And so I would encourage  
3 its use. So I would like to see it in here.

4 MR. STRONG: We've heard both good and bad  
5 on it. So we're just not ready to commit to it.

6 MS. CAHN: I don't want to take it out.

7 MR. STRONG: But we agree that it could be  
8 a useful tool.

9 MS. CAHN: Perc test has been around since  
10 the 1920s. It's been around a long time.

11 CHAIRMAN BEDESSEM: Soil texturing, I  
12 think I spoke at the last meeting that they've used that  
13 in Maine forever and ever. But they have a certification  
14 program for people to be able to do that evaluation. So  
15 the question I had is, looking at the reasons why anybody  
16 would want to do this additional work, is there ever a  
17 time where you would get a perc test and you would do a

091913 water quality

18 soil texture evaluation to change how you interpret the  
19 perc test? In other words, is there any -- I'm trying to  
20 figure out if there's any benefit, like if they're  
21 requesting a variance for something or they want to  
22 design it a little differently because of some  
23 information that they got based on the soil texture  
24 that's not reflected in the perc test.

25 MR. STRONG: I'm sure we will get that  
0052

1 request at some point. Right now it's meant as a tool to  
2 verify that the perc test results came in properly and  
3 that the system is being properly sized and may be to  
4 indicate that the perc test needs to be redone, is my  
5 initial -- I mean, is my initial thoughts. But as we see  
6 correlation, it could be used for that.

7 CHAIRMAN BEDESSEM: Okay. You're probably  
8 not going to get very many of them.

9 MR. STRONG: We never know.

10 MS. CAHN: On Table 4, I'll just note  
11 while we're here that the minimum setback, horizontal  
12 setback, to property lines for a septic tank is 10, but  
13 for greywater is 30. When we get -- I'm just pointing it  
14 out at this point. And to me, it -- when we get to  
15 greywater, I'll say why are we being more stringent with  
16 greywater than we are with the septic system?

17 MR. STRONG: And there, greywater does  
18 allow some surface application, where the water gets  
19 applied directly to the surface, where a septic tank and  
20 absorption system are all subsurface. And in the  
21 greywater section, we do have it noted, if you do use  
22 subsurface irrigation, you can -- that meets that 30-foot  
23 setback. So you could get closer. But we can discuss it  
24 when we get there.

25 MS. CAHN: Yeah. We can discuss it when  
0053

1 we get there. I just wanted to point out that it's 10.  
2 Because I didn't get out of the greywater system that it  
3 was only for surface irrigation that's a 30-foot setback.

4 MR. STRONG: We'll discuss that when we  
5 get there.

6 MS. CAHN: And then I found pathogens.  
7 It's on line 303. And I believe it's the only place we  
8 use it. And it's a footnote to the table for the 200  
9 foot to the absorption system for a public water -- for  
10 discharge that affects a public water supply well.

11 MR. STRONG: That is starting on line, I  
12 believe it's 384 on the strike-and-underline. Actually,  
13 pathogen is listed on 390.

14 MS. CAHN: We're all looking at a  
15 different version.

16 MR. STRONG: And that pathogen was  
17 included in this area, in this footnote, for protection  
18 of public water wells.

19 MS. CAHN: Can you tell me what it would  
20 cost to do a test for pathogens, how much it would cost  
21 somebody to do that test?

22 MR. STRONG: I do not know off the top of  
23 my head. I do not have a price list with me from a lab.

24 MS. CAHN: Give me a ballpark.

25 CHAIRMAN BEDESSEM: A lot of times that  
0054

1 4-log removal is related to fecal coliform.  
2 MR. STRONG: Yeah. And what we're talking

3 about here is we're not requiring them to do an actual  
4 test in the field. They have to show that their  
5 treatment process they're going to utilize provides a  
6 4-log removal like you do for water treatment and other  
7 aspects. So it's more of a design parameter than it  
8 is --

9 MS. CAHN: That didn't come across. I'm  
10 reading this, going, somebody is going to have to go to  
11 the lab and say, I need a pathogen test. And then I look  
12 at the word for pathogens and not only have to look for  
13 fecal coliform, but they have to look for giardia and  
14 hepatitis A and Rubella and cryptosporidium. So they're  
15 looking both -- they're looking for pathogens and also  
16 things that are indicator organisms. And it seems to me  
17 what we're dealing with here is really fecal coliform.

18 CHAIRMAN BEDESSEM: Maybe you can get rid  
19 of the whole definition of pathogen.

20 MS. CAHN: If this were to say fecal  
21 coliform below, whatever it is, 100, 200 -- I can't  
22 remember -- then you can strike the word "pathogens," and  
23 you'd get rid of the whole definition of pathogens.  
24 Because it doesn't occur anywhere else. I think what  
25 happened is after 4-log removal, pathogens got added, so

0055

1 therefore, the definition of pathogens --

2 MR. STRONG: Yeah. We did add pathogens  
3 because we want to have proper removal when they are  
4 influencing a public water well. So we don't want to  
5 contaminate a public water well by an on-site wastewater  
6 system.

7 MS. CAHN: So do you just need to say  
8 something that shows that their system gets a 4-log  
9 removal, or are they going to have to go out to a lab?  
10 Is it good enough to say they have to do a fecal coliform  
11 test and say it be less than --

12 MR. STRONG: It would be very difficult to  
13 do a fecal coliform test because you have to dig into the  
14 ground and capture the water. The intent is to establish  
15 the design requirement. So we'll take a second look at  
16 that and see if we can clear that up.

17 CHAIRMAN BEDESSEM: Check and see how it's  
18 phrased.

19 MS. CAHN: I'm ready to move on to Section  
20 7. I'm going to start with 7(a)(ii) for chamber  
21 trenches. And the effective bottom width is calculated  
22 by multiplying the bottom width of the chamber by 1.43.  
23 And I've heard numbers of reducing by 30 percent, 25  
24 percent. So I'm wondering where does 43 percent come in?

25  
0056

1 MR. STRONG: 30 percent -- multiplying by  
2 4-point -- with 1.43 is the 30 percent reduction.

3 MS. CAHN: Not in my book.  
4 MR. STRONG: When you talk about 30  
5 percent reduction, the calculation says you need 100  
6 square feet. So a 30 percent reduction is 70.

7 MS. CAHN: If I multiply 100 by 1.43, I  
8 get 143.

9 MR. STRONG: No. If you multiply 70 by  
10 1.43, you get 100.

11 MS. CAHN: I'm sorry. Why does it have to  
12 be so complicated? Why can't it be -- if you want 30  
13 percent reduction, why don't you have, I mean, something  
14 you multiply it by, which is --

091913 water quality

14 MR. STRONG: Because the 1.43 would be  
15 incorporated into the design package, so it will be just  
16 a number to multiply on. Because the 30 percent only  
17 applies to the bottom area. And in the situation like  
18 chamber systems, we have a sidewall credit that the 30  
19 percent doesn't apply to. So that is how that 1.43,  
20 that's what we felt was the simplest way for the  
21 homeowner to do the calculations in our design package.  
22 It was just a set number that they multiplied in and then  
23 added in the side area.

24 MS. CAHN: But if I take one and I  
25 multiply it, you know, by 1.43, I'm 43 percent bigger,

0057  
1 not 30 percent bigger. So I'm sorry. I'm lost.

2 MR. STRONG: This 1.4 is calculating the  
3 effective width of the chamber. And then you would take  
4 the hundred square feet divided by the effective width of  
5 the chamber to calculate how many chambers you would  
6 need.

7 MS. CAHN: Can you do a simple calculation  
8 so I can see it? Can you go to the board? Because I  
9 just see it say the sidewall -- or, the effective bottom  
10 width is calculated by multiplying the bottom width of  
11 the chamber by 1.43. So I take my bottom width of my  
12 chamber is three.

13 MR. STRONG: Here's my crude chamber. I'm  
14 not an artist. This is the bottom width. And you have  
15 the side area.

16 MS. CAHN: Just make it one. I know it's  
17 not going to be one.

18 MR. STRONG: So, when we calculate the  
19 effective width of the chamber, we'll take two times the  
20 side area, plus 1.43, times the bottom width, to  
21 calculate the effective width of the chamber. Then to  
22 calculate how many chambers you need based off the perc  
23 rate, you're going to calculate, I'm going to say a  
24 hundred square feet, which is a small number. Then  
25 divide it by the effective width to calculate the number

0058  
1 of chambers you need. And that's how it would be set up  
2 in our design calculation.

3 If we go the other way and say --

4 MS. CAHN: I'm sorry. I'm lost.

5 MR. STRONG: 30 percent reduction doesn't  
6 apply to the side area. So, when you do the calculation  
7 the other way, it becomes quite a complicated equation.  
8 And I got to --

9 MS. CAHN: Why wouldn't it be effective  
10 width is twice the side area, sidewall, plus .7 times  
11 bottom?

12 MR. STRONG: Because that would actually  
13 result in a larger --

14 MS. CAHN: Oh, it's one over.

15 MR. STRONG: Yeah. It's basically one  
16 over .7. And that's why that comes in like that.

17 MS. CAHN: I feel sorry for the homeowner  
18 trying to do this.

19 MR. STRONG: That's why we'll set it up  
20 that it will be in the application, and it will very  
21 clearly say times 1.43.

22 MS. CAHN: So can we, somewhere in that  
23 definition, explain this is the -- this means 30 percent,  
24 that you're getting 30 percent -- you're getting credit



25 for 30 percent more of the volume or something? Because  
0059

1 the question is -- you know, we see things when we look  
2 at other states, and they got 25 percent, 30 percent, and  
3 I'm looking at this, going, oh, we got 43 percent.

4 MR. STRONG: Yes. And some of those other  
5 states, they don't count the side area. And that's why  
6 they offer a larger percentage on the reduction or  
7 smaller percentage, depending on how they do it. So we  
8 can clarify that that 1.43 is based off a 30 percent  
9 reduction of the bottom area only.

10 MS. CAHN: Moving on to little (iii)(c)  
11 just below it, two paragraphs below it, we have -- now we  
12 have coarse sand or soils having a percolation rate less  
13 than one minute per inch. Now, I was thinking this  
14 should be five.

15 MR. STRONG: No. It should be one.

16 MR. APPLEGATE: One to five is still  
17 applicable with that 25. Less than one is too quick.  
18 Right?

19 MR. STRONG: Yeah, too quick. And either  
20 they need to hire an engineer, or they need to bring in  
21 fill material to create a one-foot treatment.

22 MR. APPLEGATE: Slow-down barrier.

23 MR. STRONG: Yeah. Yeah. A tighter soil  
24 that doesn't perc as fast. Because that initial  
25 treatment happens in that first foot. We need to have

0060

1 that.

2 MS. CAHN: And then move on to Table 5.  
3 We had a fair amount of discussion at the last board  
4 meeting and in comments before about that -- I mean, I've  
5 done perc tests. And in your appendix here, it's not  
6 even a double-ring infiltrometer or any kind of fancy  
7 thing. It's the basic crude method. And we had comments  
8 before about having hundredths of a foot in your gallons  
9 per day per square foot for your loading rate. Did that  
10 seem too -- it makes it seem -- this is a really crude  
11 empirical test. And this makes it seem like that test is  
12 really pretty accurate. You go to a hundredth of a  
13 gallon per day per square foot. And we talked last time  
14 about taking the percolation rate and saying the one to  
15 five is .8, and the ten to six -- six to ten is .6 to .8,  
16 and the 11 to whatever, 20, is 25.6.

17 MR. STRONG: Yeah. We've heard that  
18 discussion. And what we did here is we simply converted  
19 the chart that you were able to read to this accuracy,  
20 the graph, and converted it to a table. So we were  
21 providing that accuracy before, and we didn't see a need  
22 to change that now.

23 MS. CAHN: Well, I guess it just bothers  
24 me knowing how crude the perc test is. And you look at  
25 other states, and other states will have to a tenth of a

0061

1 foot, not a hundredth of a foot. And they don't have  
2 every single minute. They'll have the brute units  
3 together, but -- because this just -- to me, it looks  
4 like there's a lot of faith in the accuracy of that test.  
5 And there's not. I guess my question would be what does  
6 it hurt you to kind of group them and simplify this table  
7 and have five -- to do a tenth of a foot or --

8 MR. STRONG: If we do group them, we're  
9 going to end up with larger systems. Because we're going

091913 water quality

10 to have to always round. If it's from six to ten, we're  
11 always going to use the slower number, the point -- the  
12 lower number, so we end up with a larger field.

13 MR. APPLGATE: I agree with you that  
14 significant figures convey a degree of accuracy that is  
15 not there. But I also agree with sort of having the  
16 table like it is. Because if you have ranges like you  
17 just said, if they have six to ten, they're going to have  
18 to put in any loading rate number to use for six to ten.  
19 And he just told you they're going to be inclined to go  
20 to the approach that would require a bigger, more  
21 expensive system. So it's a lookup table.

22 MR. STRONG: And we have been using the  
23 chart for how many years? 30-plus years. Not quite  
24 30-plus. And we've never had any issues where the chart  
25 had resulted in the leach field being undersized and

0062

1 causing it to fail prematurely. So where the previous  
2 graph had provided reliable numbers and we've had  
3 success, we didn't have justification to change it when  
4 it had been working through all the years. And if you do  
5 have a competent person, they can get down to that kind  
6 of accuracy if they have the right equipment.

7 MS. CAHN: I don't buy that. Sorry. I  
8 don't think a perc test has anything to do with your  
9 competency when you're doing a perc test. I'll take  
10 exception to that.

11 CHAIRMAN BEDESSEM: I'm having trouble  
12 keeping up going back and forth between these things, so  
13 I apologize, but I need to go back to Section 5.

14 MS. CAHN: Can you pull the microphone  
15 over?

16 MR. STRONG: You wanted to jump back to  
17 Section 5?

18 CHAIRMAN BEDESSEM: Yeah. A quick  
19 question. At one point in the response to comments, you  
20 added the definition of saturated thickness because that  
21 was referred to in the Figures 1 to 6, which you then are  
22 now moving to guidance?

23 MR. STRONG: But we still have saturated  
24 thickness listed in the requirements. I'm on the strike-  
25 and-underline version, line 226.

0063

1 CHAIRMAN BEDESSEM: Strike-and-underline  
2 line 226. Okay.

3 MR. STRONG: A minimum of three feet of  
4 unsaturated soil shall be maintained between the  
5 absorption system and the estimated groundwater mound  
6 imposed by the seasonal high groundwater table.

7 CHAIRMAN BEDESSEM: So where is saturated  
8 thickness?

9 MR. STRONG: Okay. Maybe that wasn't the  
10 spot.

11 MS. CAHN: Saturated thickness is (gg).

12 MR. STRONG: Oh, I'm sorry.

13 CHAIRMAN BEDESSEM: That's the definition.  
14 But I'm just saying if we had it in there because of the  
15 figures and now the figures are in the guidelines, why we  
16 still have the definition of saturated thickness.

17 MR. STRONG: We'll do a word search to  
18 confirm. I can't recall of it being any other place.  
19 But like I said, I haven't memorized it. So we'll do a  
20 word search, and if we do not utilize it, we'll eliminate

21 it.

22 CHAIRMAN BEDESSEM: Thank you. I  
23 appreciate that. And the reason that came up is because  
24 when I was reading the changes in the response to  
25 comments, a lot of the comments regarding the necessity

0064

1 for coming up with a saturated thickness, I didn't  
2 necessarily agree to the response where it was kind of  
3 implied that a homeowner that has a water well  
4 automatically knows from the well log what the saturated  
5 thickness is. That isn't necessarily a given. And so  
6 that's some of the responses on page -- that were  
7 modified in the response to comments on page 21 to page  
8 23.

9 MS. CAHN: Which response to comments?  
10 Response to stakeholders?

11 CHAIRMAN BEDESSEM: The revised responses  
12 to stakeholders with respect to why the homeowner would  
13 need a value for saturated thickness.

14 MS. CAHN: Page 21?

15 CHAIRMAN BEDESSEM: Page 21 in the  
16 comments. It says, when the water well's drilled, there  
17 was a well log developed. Information to determine the  
18 saturated thickness can be derived from the well log  
19 without any extra expense. That may or may not be the  
20 case. That's assuming that that well was drilled down to  
21 the impermeable layer to get the saturated thickness.  
22 The wells are not drilled that way. So I have trouble  
23 with the response. And so I'm curious as to how this is  
24 all going to be rolled into the guideline.

25 And it's kind of similar to the solid waste

0065

1 program in that, when they came forward with the rule  
2 where they took a bunch of material out of the rule and  
3 said we're going to put it in a guideline now, they were  
4 to bring that guideline to us and say, okay, so this is  
5 what we did with it. And so I'm seeing those types --  
6 for changes that you accommodated by moving those  
7 figures, saying now it's going to be in a guideline, but  
8 yet I don't really know how that's going to be in that  
9 guideline, and is it reflecting people's comments in  
10 response to this rule?

11 So my question is, is that -- what is your  
12 expectation with respect to the guidelines that you're  
13 going to develop in concert with this rule as to how  
14 those are going to be developed, if they're on the same  
15 time line as the rule, if there's going to be any  
16 discussion here amongst that about that?

17 MR. STRONG: Our intent is to develop them  
18 with the chapter. And we've started piecing the stuff  
19 together. I hate to say it. I haven't put any thought  
20 in front of the board yet. It just didn't cross my mind.  
21 But our intent is to create instructions both on how to  
22 use the well data to determine saturated thickness and  
23 what to do if it doesn't go all the way down and give  
24 them examples and procedures on how to do that and  
25 absolutely utilize the comments we have to hone that into

0066

1 a better document.

2 CHAIRMAN BEDESSEM: Appreciate that.  
3 Because, as I said, I would ask you to look at those  
4 responses on pages 21 and 22, because I don't believe  
5 that the statements about, oh, you can easily get that

091913 water quality

6 from your well log, I think you need to carry out that a  
7 little more, because I don't think that's as  
8 straightforward as is implied on pages 21 and 23.

9 MR. STRONG: Okay.

10 MS. CAHN: And perhaps -- I'm just  
11 thinking out loud. It might not work. But if a  
12 homeowner's well goes down 90 feet or some distance they  
13 haven't gotten to, then could they use the maximum depth  
14 of the well if they haven't gotten to it yet and say  
15 that's at least --

16 MR. STRONG: Yeah. What is the depth of  
17 the well to the static water level with saturated  
18 thickness? And absolutely, that's what we would have to  
19 do.

20 CHAIRMAN BEDESSEM: I guess we would like  
21 to see what will happen with that. Sorry I interrupted  
22 the flow.

23 MR. CRIFE: Madam Chair, this is Rich.  
24 Can I get some clarification? I'm going to go back, what  
25 I think I heard. And first of all, those figures got

0067

1 pulled out of the regulation from comments that people  
2 felt that they might not be used or someone might not use  
3 them very often or have a clear understanding. And to  
4 expedite and at least allow it to be in a design package  
5 which is not part of a rule, we put it there to not lose  
6 that information, but still have the ability for a  
7 homeowner, if they have that type of situation, which is  
8 typically meaning the water gets perched because of some  
9 kind of layer there, that they had a calculation so that  
10 they wouldn't have one of their systems fail. I guess  
11 I'm asking is it wanted back in the rule?

12 CHAIRMAN BEDESSEM: No.

13 MR. CRIFE: And if we're going to take it  
14 and put it in a design package to have it there when it  
15 gets used once in a while, how is that part of the rule,  
16 I guess? I'm trying to get clarification.

17 CHAIRMAN BEDESSEM: Rich -- and feel free  
18 to give me a high sign if I'm not saying what you think  
19 we just agreed on here. But no, we are not asking for it  
20 to be put back. The first thing we were asking is that  
21 the responses to the comments more accurately reflect  
22 what I'm hearing your opinion is, and that, yes, it be  
23 included in the guidance document. And we're not asking  
24 for that to be sent to the board for approval or anything  
25 like that. We just want you guys to report back and let

0068

1 us know how that was handled in that guidance.

2 Because I think the assessment was that we all  
3 agree that should be in the guidance document, and we're  
4 hoping that in the guidance document, that it will have  
5 more explanation of how people can use it and more so  
6 than is in the rule. So it will not be used incorrectly,  
7 and it will be filled out a little more.

8 MR. CRIFE: Okay. Thank you for your  
9 clarification. I was just trying to understand all of  
10 the talk there. I'm totally okay with that.

11 CHAIRMAN BEDESSEM: Okay. I think we're  
12 all in agreement here, too, Rich. Thank you for bringing  
13 that up so there was no misunderstanding.

14 MR. APPLGATE: You're up, Marge.

15 MS. CAHN: I'm on Section 9. Did anybody  
16 have anything on Section 8? On 9(a)(iii)(B), where it

091913 water quality

17 says septic tanks for high-strength wastewater or  
18 nonresidential units shall have a minimum effective  
19 liquid capacity sufficient to provide at least 48-hour  
20 retention at peak flow, I think Bob Norton had a comment  
21 about how does a layman determine this? I think we mean  
22 the design flow.

23 MR. STRONG: Yes. Those got used  
24 interchangeably because they are the same. The design  
25 flows are meant to be the peak flow for that facility.

0069

1 MS. CAHN: So if we do the search for peak  
2 flow, then we should get that. On 9(a)(iv)(C), now, this  
3 is just an editorial, but I had to read this sentence a  
4 bunch of times. The liquid depth shall not be less than  
5 three feet, nor greater than six feet. And we're trying  
6 to simplify the language. I would just say the liquid  
7 depth shall be between three and six feet. Doesn't that  
8 mean the same thing?

9 MR. STRONG: Yes.

10 MS. CAHN: So we could change the language  
11 to that. I'm like "not greater than, not less than  
12 this."

13 Going down from -- that was C. Going down to E  
14 capital 1, I'm having a hard time understanding the  
15 language. The tees or baffles shall extend a minimum of  
16 six inches above and 30 to 40 percent of the liquid depth  
17 below the liquid level.

18 MR. STRONG: Is it okay if I use the  
19 board?

20 MS. CAHN: Well, I know what it means, but  
21 go ahead. But I think we can simplify the language. But  
22 go ahead. You can draw.

23 MR. STRONG: And it might help to identify  
24 it. Basically where the tee comes in, here's the liquid  
25 level. The tee has to be six inches here. And then

0070

1 for -- say if it's four foot deep, so 48 inches times 40  
2 would be --

3 MS. CAHN: Make it 36. Make it something  
4 easy to do the math.

5 MR. STRONG: 36 times -- I'll just grab a  
6 calculator.

7 MS. CAHN: 30 percent.

8 MR. STRONG: Yeah. So it would have to  
9 extend -- if it's 36 inches, it would have to extend out  
10 12 inches, to a maximum of whatever 40 percent is. And  
11 that's what we're trying to establish there.

12 MS. CAHN: But this is for the tees or the  
13 baffles. So can we make two sentences? One would say  
14 the tees or baffles shall extend a minimum of six inches  
15 above the liquid level. Don't erase.

16 MR. STRONG: Sorry.

17 MS. CAHN: And then say the tees or  
18 baffles -- the next sentence would say the tees or  
19 baffles shall extend down. So one extends up, and the  
20 other one extends down from the inlet.

21 MR. STRONG: Yes.

22 MS. CAHN: So maybe we could --

23 MR. STRONG: Well, from the liquid level.

24 Because, actually, the outlet tee -- or, the outlet tee  
25 is two inches below. The inlet tee is two inches above

0071

1 the outlet. So there's an actual difference in the

2 height of the tees, too. So we can break that up in two  
3 sentences, saying the tees shall extend a minimum of six  
4 inches above the liquid level, and the tees shall extend  
5 to the -- extend 30 to 40 percent below the liquid level.

6 MS. CAHN: So extend down.

7 MR. STRONG: Extend down.

8 MS. CAHN: Because it says to 30 to 40  
9 percent of the liquid depth below the liquid level.

10 MR. APPELEGATE: I think it makes complete  
11 sense myself.

12 MS. CAHN: I'm just trying to think of  
13 a -- can we just say it extends 30 or 40 percent into the  
14 liquid -- the bottom of the baffle or tee extends 30 or  
15 40 percent below the liquid depth?

16 MR. APPELEGATE: I think adding the word  
17 "down" makes it better. The tees or baffles shall extend  
18 six inches above and 30 to 40 percent down.

19 MS. CAHN: Below.

20 MR. APPELEGATE: Below. Below.

21 MS. CAHN: And down. The tees or baffles  
22 shall extend up a minimum of six inches above the liquid  
23 level. The tees or baffles shall extend down --

24 MR. APPELEGATE: 30 or 40 percent below.

25 MS. CAHN: Yeah. That would work for me.

0072

1 MR. HANSON: Just simply 30 to 40 percent  
2 between -- below. Because it talked about the liquid  
3 level already in the first sentence, in the first part.

4 MS. CAHN: Do you have a better  
5 suggestion?

6 MR. REPPA: I have a great suggestion.

7 MS. CAHN: I would love to hear it.

8 MR. REPPA: I think there needs to be a  
9 definition between the inlet and outlet baffle, because  
10 30 percent should be on the inlet, and 40 percent should  
11 be on the outlet baffle. Because the way it's written  
12 right now, you can do 30 percent on the outlet baffle,  
13 and that is incorrect.

14 MR. STRONG: Why is that incorrect?

15 MR. REPPA: It's not deep enough.

16 MS. CAHN: Do you mind if I ask Dwight to  
17 come forward and identify himself. I would like to hear  
18 what you have to say.

19 MR. REPPA: In my education, the outlet  
20 baffle needs to be extended 40 percent into your liquid  
21 level. If it's less than that, you can incur scum  
22 beginning to be caught up into that level. It's just not  
23 into what we call a clear zone. And the comments I made  
24 prior, I said there needed to be a definition between  
25 inlet depth and the outlet depth of that baffle. The six

0073

1 inch above, I agree.

2 MR. STRONG: In our definitions, we refer  
3 to the liquid level, not the actual -- so the inlet would  
4 have to be longer than the outlet by three inches, or  
5 whatever the difference is in the two.

6 MR. REPPA: I'm saying we're basing -- I'm  
7 basing everything on the outline.

8 MS. CAHN: Let's talk about the outlet.

9 That makes sense to me.

10 MR. REPPA: I'm just saying that's the  
11 elevation, because your inlet is three inches higher.

12 MR. STRONG: Correct.

13 MR. REPPA: So the outlet needs to be at  
14 40 percent. And that's what I've been taught. When you  
15 say 30 to 40, what makes you stop putting the outlet at  
16 30 percent design?  
17 MR. STRONG: Nothing. 30 to 40 would be  
18 the acceptable range.  
19 MS. CAHN: But in his experience, as I  
20 understand, is you can get scum.  
21 MR. REPPA: This is just my experience and  
22 the education I've had in installation and --  
23 MS. CAHN: Is there a reason why you can't  
24 go with 40 percent?  
25 MR. REPPA: That's me.

0074

1 MR. STRONG: We based a 30 to 40  
2 percent --  
3 MS. CAHN: Thank you, Dwight.  
4 MR. STRONG: -- based off EPA  
5 recommendations in their manuals. And the EPA design  
6 manual for on-site wastewater systems, they utilize 30 to  
7 40 percent. And that's what we followed.  
8 MS. CAHN: And I guess what Dwight is  
9 saying is that he's experienced problems with systems  
10 that are at 30 percent, and you get scum into. Is that  
11 right?  
12 MR. REPPA: That is very possible. And I  
13 have not seen a tank that has had the outlet baffle at  
14 less than 40 percent.  
15 MR. STRONG: I'm trying to look current.  
16 25 has that exact --  
17 MR. REPPA: And maybe there are in other  
18 parts of the state. I won't say that. But here the  
19 tanks that I've seen in Idaho and Wyoming in this  
20 section, the baffles have all been to a 40 percent level.  
21 MR. STRONG: Actually, that was the  
22 stakeholder comment -- we had it as one-third. And we  
23 actually increased it to 40 percent. Because before, we  
24 said it shall not extend more than one-third. So,  
25 actually, we've lowered it more. I have not had any

0075

1 experience with the ones with the shallower depths  
2 conveying scum.  
3 Rich, have you seen any problems in regards to  
4 those?  
5 MR. CRIFE: No, I have not.  
6 MR. STRONG: That's based off all the  
7 regulations we looked at in the EPA manual. They all  
8 seem to be in that general range.  
9 MS. CAHN: Would there be a problem with  
10 changing that to 40 percent?  
11 MR. STRONG: No. Just a more stringent  
12 requirement. The 30 to 40 gave more flexibility.  
13 MS. CAHN: But we're also trying to  
14 prevent failure of these.  
15 MR. CRIFE: Madam Chair and board, if the  
16 intent is to keep this simple and not be more regulatory,  
17 I guess I would be -- have some reservations on that.  
18 Because then you're making it more stricter, where 30 to  
19 40 allows you flexibility in that.  
20 I would also like to make the point that for  
21 the State of Wyoming, with EPA, our failure rates were .4  
22 percent. I don't recollect who all was better than us.  
23 But we were pretty high up on the end of doing pretty

24 well with small wastewater systems. And this is one of  
25 those approaches that we might be getting a little more

0076

1 strict by doing that.

2 MS. CAHN: I don't have a problem with  
3 being stricter.

4 MR. STRONG: I guess I will point out that  
5 a delegated county can enact stricter requirements than  
6 DEQ has. So any delegated county that feels that 40 is  
7 more appropriate, 40 to 50 or whatever is more  
8 appropriate for their county, they have the ability to do  
9 that.

10 MR. HANSON: Just as a bloody layman, why  
11 are we using two means of measuring? We are using six  
12 inches one way and percent the other way.

13 MS. CAHN: Because the tanks are different  
14 sizes.

15 MR. STRONG: Because the liquid level can  
16 be from three to six feet. So, depending on how deep  
17 your liquid level is determines how deep the tee has to  
18 be. It's not a fixed number. It's based off of the  
19 actual depth of the tank. So a six-foot tank is going to  
20 have a longer tee to get to that 30 to 40 range, as  
21 opposed to a three-foot tank.

22 MR. JONES: Isn't your liquid level  
23 actually going to be your outlet?

24 MR. STRONG: Yes.

25 MR. JONES: So, to the gentleman's comment

0077

1 about changing the word "liquid level" to "outlet,"  
2 what's wrong with that?

3 MS. CAHN: I like that. It simplifies it,  
4 I think.

5 MR. STRONG: Okay.

6 MS. CAHN: The tees or baffles shall  
7 extend up a minimum of six inches above the outlet, the  
8 bottom of the outlet, the outflow.

9 MR. JONES: It's on 426.

10 MR. STRONG: No. It's very specific to  
11 the outlet invert elevations, so we might have to define  
12 the invert elevations so it's clear. But the flow line  
13 would be outlet. Can I ponder that one, I'm sorry to  
14 say?

15 MS. CAHN: Yeah.

16 MR. JONES: We'll definitely look at it  
17 and see if we can simplify it and make it easier to  
18 understand.

19 CHAIRMAN BEDESSEM: One more thing. I  
20 need to go back to a previous comment that I had in the  
21 answer with respect to width of the trench. We talked  
22 about the chambers, the width of the trench being three  
23 feet, and some comments from stakeholders about how  
24 that's difficult because there's only two-inch clearance.  
25 And my recollection is that when you responded to me just

0078

1 a little bit earlier, you said, well, that three feet is  
2 just what's going to be used for the calculation.

3 MR. STRONG: Correct.

4 CHAIRMAN BEDESSEM: But when I read the  
5 rule, in two spots it says maximum width of trench  
6 excavation is three feet. And so, if a layman is reading  
7 this, he thinks he can't dig a hole wider than three  
8 feet. And so I feel like we're not addressing the



9 comment appropriately. You're saying they can dig it a  
10 little wider, but, you know --  
11 MR. STRONG: And I guess it depends on the  
12 type of system. If it's a --  
13 CHAIRMAN BEDESSEM: I'm talking about  
14 chambers.  
15 MR. STRONG: Yeah. But the maximum trench  
16 width -- and maybe we need to clarify -- is referring for  
17 a rock-and-pipe system. That maximum that trench can be  
18 is three foot.  
19 CHAIRMAN BEDESSEM: But this is Section --  
20 it's on page 25-3 -- 25-33 of the lined strikeout  
21 version. And so it's line 1136. So it's under chamber  
22 trenches, and it says maximum width is three feet.  
23 MR. STRONG: I am lost.  
24 MR. APPLGATE: What section?  
25 MR. STRONG: You have Section 11.

0079

1 CHAIRMAN BEDESSEM: Page 25-34.  
2 MR. APPLGATE: We're in different  
3 versions.  
4 CHAIRMAN BEDESSEM: Right. We're all in  
5 different versions.  
6 MS. JOHNSON: So I think it's in the  
7 comparison one, maybe 797.  
8 MR. STRONG: The maximum width of trench  
9 excavation is three foot.  
10 CHAIRMAN BEDESSEM: And it's under the  
11 chamber section.  
12 MR. STRONG: Okay. Let me get to the  
13 chamber section.  
14 CHAIRMAN BEDESSEM: So I'm having a hard  
15 time finding --  
16 MR. STRONG: On the strike and underline,  
17 the comparison, 8/19/13, we are on line 837.  
18 MS. CAHN: Can you give me the 9 A, B, C,  
19 1, 2, 3?  
20 MR. STRONG: We are in Section 11.  
21 MS. CAHN: We're now in Section 11? We  
22 were in Section 9.  
23 MR. STRONG: We're in Section 11. A --  
24 Roman Numeral (viii)(e).  
25 MS. CAHN: Thank you.

0080

1 CHAIRMAN BEDESSEM: I realize I did this  
2 out of order, but it was to respond to that question  
3 earlier. You had said that it wasn't the width of what  
4 they could actually excavate, but it was how it was being  
5 utilized in the design calculations. But here it's  
6 saying that the maximum width of that excavation is three  
7 feet. And the complaint was these chambers are 34 inches  
8 wide, and there's no room for them to be dealing with  
9 that. And they look at this and think, oh, I can't dig a  
10 hole deeper than three feet. And so, when I see those  
11 comments from some of the stakeholders, I don't think the  
12 response was getting to what their comment was.  
13 MR. STRONG: I'm just reading through it,  
14 making sure I don't contradict myself anywhere else.  
15 MR. HANSON: Isn't it something like for  
16 the purpose of calculating or for the purpose of  
17 calculation, something like that? Then you can go a mile  
18 wide, but --  
19 MR. STRONG: The maximum width for

20 trenches definitely applies to the rock-and-pipe system.  
21 CHAIRMAN BEDESSEM: Which I think -- and I  
22 don't think your stakeholders complained about using  
23 three feet there. The complaint is when it's stuck under  
24 the chamber section.

25 MR. STRONG: Okay. We can clear that up,  
0081  
1 because it's not our intent to make it unconstructible.  
2 When we get -- we viewed it a little bit different. Yes,  
3 we'll get that corrected. Now that you got me out of  
4 order --

5 MR. JONES: So does the same apply for  
6 Section (vi) of that Section 11, (vi)(D), that says the  
7 same thing when you're talking about trenches for  
8 perforated pipe?

9 MR. STRONG: Perforated pipe, it has to be  
10 three foot.

11 MR. JONES: Can't dig wider than three  
12 foot?

13 MR. STRONG: You won't get any credit for  
14 it. Because when you do the excavation for rock and  
15 pipe, you actually use the excavation, and you fill it  
16 full of rock. So however wide the excavation is is how  
17 wide the rock's going to level.

18 MR. JONES: Thanks for the clarification.

19 CHAIRMAN BEDESSEM: You buy these little  
20 arch shapes, and they're this wide, and you have to fit  
21 it in.

22 MR. APPLGATE: It has to be wider to drop  
23 it in?

24 MR. STRONG: Yes. We can get that  
25 corrected. It's all perspective.

0082  
1 MS. CAHN: Can we go back to Section 9? I  
2 want to go back to -- I'm pondering this 30 to 40  
3 percent.

4 MR. TILLMAN: Madam Chair, Bill Tillman,  
5 DEQ in Cheyenne. I'm confused as to what was just  
6 exchanged there. You're wanting us to change something  
7 on the width of the trench?

8 MR. STRONG: They're asking, on the actual  
9 excavation for installing the chamber systems, can the  
10 actual excavation be wider than three feet for  
11 installation of the chambers?

12 CHAIRMAN BEDESSEM: Because several  
13 stakeholders have commented that that was a big pain  
14 because they had to walk these in because they're 34  
15 inches wide. And we're looking for some --

16 MR. STRONG: It's referring to  
17 constructibility, as opposed to design width.

18 MR. CRIFE: So I guess our answer would  
19 be, yes, they can go wider than three. What I understand  
20 and what we were trying to cover there was to calculate  
21 the size.

22 CHAIRMAN BEDESSEM: And we agreed.

23 MS. JOHNSON: So, Rich, we need to reword  
24 that statement to make it clear that we're using that for  
25 calculation purposes. Because right now it reads that

0083  
1 you cannot excavate. And we need to make it more clear  
2 that that three feet is for calculation purposes.

3 MS. CAHN: So we could start the sentence  
4 with, for calculation purposes, the maximum width -- of

5 the trench width --

6 MR. STRONG: Trench width, yeah. We can  
7 clarify that.

8 MS. CAHN: We don't need the word  
9 "excavation."

10 MS. JOHNSON: Exactly.

11 CHAIRMAN BEDESSEM: Because you're not  
12 trying to direct them how to install it. You're just  
13 saying you're not going to get credit for more than three  
14 feet?

15 MR. STRONG: Yes.

16 CHAIRMAN BEDESSEM: So, thank you.  
17 Because people were reading it as, oh, gosh, I can only  
18 make a hole this wide and have to wiggle this in. I  
19 think we're good.

20 MS. CAHN: Go ahead, Rich.

21 MR. CRIFE: Madam Chair, we're good with  
22 that. We were just trying to get clarification. The  
23 conversation went a lot of different directions.

24 CHAIRMAN BEDESSEM: I commend you if you  
25 were able to follow that over the phone without seeing

0084  
1 everything that is going on here. Thank you for bearing  
2 with us.

3 MS. CAHN: I want to go back to this  
4 baffle and the bottom of the baffle or the bottom of the  
5 tee. And I'm going to take exception, Rich, with what  
6 you said about how it would be more restrictive to say  
7 that it's 40 percent. Basically all we're trying to do  
8 is ensure that that baffle is in the clear liquid level.  
9 And so I don't see how having a longer baffle is more  
10 restrictive. It's just -- it's more insurance that it's  
11 in clear liquid level. So I don't understand your  
12 comment about it being more restrictive or more  
13 regulatory or something.

14 CHAIRMAN BEDESSEM: I was going to say  
15 aren't these premanufactured, and there's a range?

16 MR. STRONG: Yes. Most of these are  
17 premanufactured. I think what it's coming down to is the  
18 definition of what is the clear zone. It's a  
19 differencing of opinion there whether it's the 30 or the  
20 40 or what the case may be. We based ours off the EPA  
21 recommendations of 30 to 40 percent for the clear zone.

22 MS. CAHN: But if you're in the clear zone  
23 at 30 percent, then you would certainly be in it at 40  
24 percent. Right? So 40 percent is -- nobody would  
25 disagree that at 40 percent, you're in the clear zone,

0085  
1 and there's some question as to whether or not at 30  
2 percent you are in the clear zone?

3 MR. STRONG: Well, it's how specific do we  
4 want to be on them cutting that tee? Do they have to be  
5 right at 40 percent, or are we going to give them a range  
6 to fluctuate in? This is really what it's coming down  
7 to.

8 MS. CAHN: Say the recommended level is 40  
9 percent?

10 MR. STRONG: Can't do recommendations in  
11 regulations. That's why we use the 30, 40, because it  
12 gave them the ability to have a differing range or have a  
13 range for it to hit instead of just a set number like we  
14 do for liquid depth. We say three to six feet. Here  
15 we're saying 30 to 40 percent. It's a range to hit, as

091913 water quality

16 opposed to all tanks have to be five foot deep, and some  
17 guy's got one that's five foot nine inches. Why can't he  
18 use it? It's meant for it to be flexible for different  
19 tank manufacturers and different configurations.

20 MR. APPLGATE: And I think a key point is  
21 you said you don't have failure rates. Now, if a builder  
22 achieves 40 percent with the ones he builds, he can make  
23 them -- if he's the builder, installer, he can build them  
24 at 40 percent. No one's stopping that.

25 MR. STRONG: Or as a county, he can

0086

1 require 40 percent, as opposed to 30 percent.

2 MS. CAHN: But it's a question of  
3 servicing them and seeing failure. Is that right,  
4 Dwight?

5 MR. REPPA: I'm sorry?

6 MS. CAHN: But it's based on your  
7 experience?

8 MR. REPPA: It's experience and the  
9 education I've had nationally. And that's what we were  
10 taught nationally. 40 percent is the national -- I'm  
11 going to say national standard. Now, that's not to say  
12 that people in other states, they don't do 30 percent,  
13 but --

14 MR. APPLGATE: Well, I'm not here to  
15 challenge that experience. If EPA has a standard that  
16 says 30 to 40 percent, that's a national standard. I  
17 mean, if there's a reference that you have, if there's  
18 some other reference document that says 40 percent, then  
19 I'd entertain that. But if we're working off an EPA  
20 standard, then --

21 MS. CAHN: All right. Moving on, I have,  
22 again, problems with -- so, moving down from -- we were  
23 at (I). Roman Numeral (III) about the inlet pipe, so I  
24 get the first sentence.

25 MR. REPPA: Okay.

0087

1 MS. CAHN: So we have the outlet elevation  
2 shall be designed to provide a minimum distance of nine  
3 inches or 20 percent of the liquid depth, whichever is  
4 greater. And I guess I'm wondering why we have  
5 "whichever is greater." Why can't it be one or the  
6 other?

7 MR. STRONG: I'm going to preface it again  
8 by saying this was taken from the EPA manual. The nine  
9 inches is specific to be able to have the six inches.  
10 May I draw it? The nine inches is reflecting to this  
11 tee. This has to be six inches. This has to be three  
12 inches for the tee configuration. The 20 percent is in  
13 regards to scum storage. So, if you have a taller tank,  
14 you need to have a taller height up there to provide for  
15 your scum storage.

16 So it's addressing two aspects, where the three  
17 inches is providing for ventilation for air movement  
18 through the leach field, through the septic tank, and the  
19 20 percent is in regards to the scum storage. So there's  
20 two aspects that are being addressed. Where you have a  
21 six-foot tank or six-foot-deep liquid level, you need  
22 eighteen inches, not nine.

23 MS. CAHN: So now we're talking where we  
24 are -- I have a problem visualizing it when I read it.

25 MR. JONES: Why don't you demonstrate it

0088

1 up there?

2 MS. CAHN: When you demonstrate, it makes  
3 sense. When you read that, it gets confusing about the  
4 outlet elevation being a minimum distance of 20 percent  
5 of the liquid depth.

6 MR. STRONG: And I can say when it comes  
7 to the septic tank requirements, we do have an approved  
8 list out there so the homeowners know which tanks they  
9 can buy that are meeting these requirements. And we do  
10 have that posted on our website to help with that.  
11 Because the septic tank portion itself is very technical  
12 and can be confusing at times. And that's why we created  
13 that A list, B list, so people know what tanks meet our  
14 requirements so they know which one to buy so that they  
15 comply with regulations, if that helps.

16 MS. CAHN: I want to go back to Dick  
17 Bachelder's comments, because I have a note that his  
18 comment wasn't addressed properly.

19 MR. STRONG: With Dick Bachelder, I can  
20 tell you I've had several conversations with him after  
21 these -- during and after these responses were prepared.  
22 And he is capable of meeting that regulation now. And we  
23 developed a very reasonable and adequate solution for  
24 him. Obviously it's not reflected in responses because  
25 that happened after we started advertising and we got

0089

1 down to the root of the issue. It took some phone calls  
2 back and forth to truly understand what he was getting  
3 at.

4 MS. CAHN: Moving down below there to  
5 (v)(A), and I have a question about the "unrestricted,"  
6 the use of the word "unrestricted." The outlet of each  
7 successive tank shall be at least two inches lower than  
8 the outlet of the preceding tank and shall be  
9 unrestricted except for the inlet to the first tank and  
10 the outlet for the last tank. What does that mean,  
11 unrestricted? No tee or baffle?

12 MR. STRONG: No tee, no drop. It's meant  
13 to be just a constant-grade pipe, where like with the  
14 tee, it's restricted because it turns down. So the water  
15 actually hits the tee and then goes down. We didn't want  
16 to see pipe sections where they do a vertical drop or  
17 something. Has to be a continuous --

18 MS. CAHN: Could you put a parentheses  
19 after that, what unrestricted means, no tee or baffle,  
20 just to explain what you mean?

21 MR. STRONG: Okay.

22 MS. CAHN: Unrestricted means a lot of  
23 different things.

24 And then we had this question before from  
25 stakeholders about how can you have three tanks in a

0090

1 series with these regulations? The next line down, (B),  
2 the first tank or the first compartment of the first tank  
3 shall be equal to 50 percent or larger of the total  
4 septic tank system volume. Then this basically -- each  
5 successive tank has to be smaller.

6 MR. STRONG: Yes. Each successive tank  
7 would have to be smaller. We need the 50 percent in that  
8 first tank, that first compartment, because that's the  
9 primary scum collector, primary collection of settleable  
10 solids. And if you reduce that, it carries it down  
11 through the system sooner. The second chamber or the

091913 water quality

12 second tank is more -- I don't want to say polish. It's  
13 getting to final particles. It's getting to finer  
14 things. And if you have that migrate sooner, it's going  
15 to get into your leach field sooner.

16 MS. CAHN: So three is not impossible with  
17 this.

18 MR. STRONG: No.

19 MS. CAHN: They're just smaller and  
20 smaller.

21 MR. STRONG: And the reason we left it  
22 open like that, it may be cheaper for a landowner to  
23 buy -- I don't know why, but you never know. They buy --  
24 they need 2,000 gallons. They buy 1,000-gallon tank and  
25 two 500 tanks, and it's cheaper for them. Why can't they

0091  
1 do it? So we wanted to have that flexibility for them.

2 MR. TOURNEY: Madam Chair, this is Seth  
3 Tourney. I'm southeast district engineer in Cheyenne.  
4 And our current regulations actually require that the  
5 first compartment has to be 50 percent of the total  
6 volume. So the answer to your question really is yes,  
7 you can't really have three septic tanks in series. Can  
8 only have a maximum of two because we need that first  
9 compartment to be 50 percent of the total volume, I  
10 guess, unless other tanks are really small enough that  
11 you may be able to go up to three. But in general, we  
12 see a maximum of two.

13 MR. STRONG: Yes. That's what we  
14 discussed. The second and third tank would have to be  
15 significantly smaller to be able to meet that  
16 requirement.

17 MR. APPLGATE: The example you gave is a  
18 good one. You said it could be 1,000 and 500.

19 MR. STRONG: It could be a situation where  
20 you need 1,000 gallons in the first tank with no baffles  
21 in it, and the second and third tank can be 500 gallons  
22 apiece.

23 MR. APPLGATE: Is that a common  
24 configuration?

25 MR. TOURNEY: We don't see that

0092  
1 configuration really very much at all.

2 MS. CAHN: I think Teton County, we have  
3 three in series. Is that correct?

4 MR. REPPA: I think I've seen it.

5 MR. TOURNEY: As a normal installation?

6 MR. REPPA: No.

7 MS. CAHN: No.

8 MR. TOURNEY: Yeah. We don't see that  
9 very often unless it's an extraordinary circumstance.

10 MR. APPLGATE: So is the caller concerned  
11 that it's overly restrictive, or were you just pointing  
12 out that, generally speaking, the requirement drives you  
13 to two tanks?

14 MR. TOURNEY: Just clarifying what we  
15 typically see in the field in regards to the first  
16 chamber volume.

17 MS. CAHN: And it necessarily has to be --  
18 if this statement were to come out of there, I mean, does  
19 the first tank have to be 50 percent or larger?

20 MR. STRONG: Yes.

21 MR. TOURNEY: Yeah. That's in our current  
22 regulations.

23 MS. CAHN: I'm not asking about because  
24 it's in regulations or not. I'm just asking for  
25 effectiveness of the system. Will the system work

0093

1 properly if you don't have that in there?

2 MR. STRONG: For cooperation in the second  
3 tank.

4 MR. TOURNEY: We need that first chamber  
5 for what Frank has said earlier in regards to that's our  
6 primary chamber where the sludge gets collected.

7 MR. APPLGATE: Is there someone who's  
8 wanting more or feels like that --

9 MS. CAHN: There were a number of comments  
10 from Teton County, I think, if I recall. I'd have to go  
11 back through. And we're going to run out of time. I'd  
12 have to look up all the comments. But I'm fine to move  
13 on.

14 I see permit by rule.

15 MR. STRONG: Where?

16 MS. CAHN: Go down to (vi). No. Go to  
17 (vii).

18 MR. STRONG: Yes. Land application,  
19 that's where it was. That's why we have the permit by  
20 rule definition in there. In remote rural areas, you can  
21 apply your seepage a permit by rule. And there's  
22 requirements established. I just couldn't get my finger  
23 on it. I knew it was there.

24 MS. CAHN: I just saw it. Oh, there it  
25 is. Next one, dosing tanks. So I'm going down to (b).

0094

1 So we're 9(b)(i). Dosing tanks shall meet the same  
2 material as -- okay -- and installation requirements as  
3 septic tanks. And I'm wondering why we have installation  
4 requirements. I don't know why I have that crossed out.

5 MR. STRONG: We have requirements for  
6 minimum cover over the septic tank, requirements like  
7 that that carry to dosing tanks. The one that jumps out  
8 at me right now is the minimum depth of soil cover over  
9 the tank is six inches.

10 MS. CAHN: Now I highlighted "and  
11 installation requirements." I can't remember why. Does  
12 it make sense to have all the same installation  
13 requirements for dosing tanks as it does for septic?

14 MR. STRONG: Yes.

15 MR. HANSON: What is a dosing tank?

16 MR. STRONG: A dosing tank is utilized to  
17 large systems or high-strength water systems where  
18 instead of the flow trickling into the treatment bed, it  
19 actually does a slug application, where it will apply 500  
20 gallons or 1,000 gallons in a short period of time to  
21 promote complete coverage of the treatment bed or  
22 treatment trenches.

23 MS. CAHN: And then the next sentence,  
24 dosing tanks shall have a 20-inch diameter access riser,  
25 and I think Dwight had a comment or somebody had a

0095

1 comment about that should really be 24 inches. First of  
2 all, the word "minimum" is missing. I don't think we  
3 want to require them all to be 20 inches.

4 MR. STRONG: Yes.

5 MS. CAHN: Because this is something that  
6 a person has to access occasionally or not ever.

7 MR. STRONG: Yes, you have to access it.

8 I guess it's been my experience to typically use the 20  
9 inches. You have the inspection reports. If you have to  
10 get in there and repair the automatic cycle or something,  
11 sometimes they just pull the deck off because it's easier  
12 to do the work.

13 MS. CAHN: You know, a comment that Dwight  
14 made -- I can't remember if you made it -- but when  
15 somebody has to actually go in and access the tank, the  
16 request was that we have 24 inches for manholes, a  
17 minimum, rather than 20 inches. And I guess my question  
18 is why wouldn't we say fine? Because you got to get an  
19 extension ladder down in there and a person. And why not  
20 give them more -- in a confined space, why not give them  
21 more room to work safely? I don't understand the  
22 objection to making it 24 inches instead of 20 as a  
23 minimum. Your comment was, well, that doesn't mean you  
24 have to install 20 inches. But the problem is if you're  
25 servicing something and everybody says, oh, I only need

0096

1 20 inches, then somebody has to go in and service,  
2 it's --

3 MR. STRONG: I guess the intent there was  
4 to allow septic tanks to be used as dosing tanks. And  
5 with septic tanks, we only require a 28-inch access.

6 MS. CAHN: But again, my question is why  
7 not make the minimum 24 inch to make it easier for  
8 somebody -- when somebody has to actually physically go  
9 into a confined space, a larger opening is a good thing.

10 MR. STRONG: I understand.

11 MR. APPELEGATE: I think that raises a  
12 question whether the riser is always accessed by -- is  
13 that its intent, always be accessed by a person? How is  
14 the riser used? Because you just said that if it -- if  
15 you have to do maintenance, sometimes you just take the  
16 deck off.

17 MR. STRONG: I guess the intent is --

18 MS. CAHN: You couldn't take the deck off.

19 MR. STRONG: I guess the intent is there,  
20 by utilizing the septic tank configuration, if we require  
21 a 24-inch hole, it's going to require a special casting  
22 of the tank, which is going to create an additional cost  
23 to the homeowner. We're trying to make it so they can  
24 use the standard materials that are out there and not  
25 have to have additional cost.

0097

1 MR. APPELEGATE: And if the standard septic  
2 tanks have 20-inch --

3 MR. STRONG: Holes.

4 MR. APPELEGATE: If that's how they've been  
5 designed by manufacturers --

6 MS. CAHN: Is that correct?

7 MR. REPPA: I have not seen any --

8 MS. CAHN: Can you come forward and talk  
9 into the microphone?

10 MR. REPPA: I have not seen many septic  
11 tanks currently built with less than a 24-inch opening.  
12 That's pretty standard, I think, in the industry right  
13 now. Older tanks were definitely smaller diameters. But  
14 again, other parts of the state, I'm not quite sure what  
15 they're doing.

16 MS. CAHN: And we're talking about new  
17 installations. You're going to grandfather-clause in, if  
18 an old septic has a 20-inch opening, it's going to be --



091913 water quality

19 it just seems to me it's a safety issue and ease of  
20 access. If 24 inches is a standard opening on new tanks,  
21 then we should have --

22 MR. STRONG: We would need to change it.  
23 If we do this, I would recommend changing it to older  
24 septic tanks, as well.

25 MS. CAHN: Right. I'm suggesting we

0098

1 change it for both.

2 MR. APPLGATE: I guess I would suggest  
3 that we find out where the standard came from before we  
4 make a change.

5 MR. STRONG: We'll review that. We'll  
6 take a look at our standard.

7 MS. CAHN: And I'm looking at new  
8 installations, not --

9 MR. STRONG: Yes, we can do that. But I  
10 just don't recall.

11 MS. CAHN: Yeah, if you could look at  
12 buying new, what they come in as. If they're 24 inches  
13 as standard now --

14 MR. STRONG: Seth, are you still on the  
15 line, and can you comment on that?

16 CHAIRMAN BEDESSEM: He must not be on the  
17 line.

18 MR. CRIFE: We didn't hear the question.  
19 You're a long ways from the microphone.

20 MR. STRONG: The question is, on new  
21 septic tanks, what is the normal or the standard size for  
22 the access? Is it 20 inches or 24 inches?

23 MS. CAHN: For new ones.

24 MR. STRONG: For new ones.

25 MR. TOURNEY: We can't answer that one

0099

1 because we got to pull all the preapproved septic tank  
2 submittals that we have. And they're sitting in James  
3 Brough's office in Lander. So we'll have to gather that  
4 one.

5 MS. CAHN: Okay. Thank you. Underneath  
6 that, where we were, there's a Table 6, which is dosing  
7 tank volume. And there was no callout for Table 6. So  
8 I'm not sure where it's supposed to apply.

9 MR. STRONG: What the intent of Table 6 is  
10 is to say, based off your wastewater flows, how big your  
11 dosing tank needs to be and what levels the alarm, the  
12 pump on and off need to be. So maybe we need to clarify  
13 the purpose of Table 6.

14 MS. CAHN: Yeah. I think you need to say  
15 something like sizing the volume -- sizing of dosing  
16 tanks will be for Table 6. And I actually found it  
17 fairly difficult to follow this, as well, but that might  
18 be just me.

19 MR. CRIFE: Board, this is Rich. It  
20 actually was made clearer than the last one as to the  
21 explanation on it. And that's why it was put in the  
22 table as is, is to clear that up so that not only would  
23 they understand sizing, but just as Frank indicated,  
24 where to put the alarms and things like that in the tank.

25 MS. CAHN: Okay. I mean, I can make my

0100

1 way through it. My main concern is there was no callout.  
2 So we need to say what the purpose of it is.

3 So then go down to holding tanks. And I'm

4 assuming, is it true that a holding tank would never need  
5 to be accessed, then? We don't have to worry about the  
6 size of the opening? Or do you need to access corners in  
7 holding tanks?

8 MR. STRONG: Typically holding tanks, they  
9 drop a suction line down in there and pump everything  
10 out.

11 MS. CAHN: And so is it difficult at all  
12 to get into corners and things? So this 20 inches might  
13 be fine here?

14 MR. STRONG: Yes. I don't believe they're  
15 that critical on getting all the way down.

16 MR. JONES: That's a minimum. It could be  
17 24.

18 MS. CAHN: Yeah. I think it's more -- and  
19 again, I'm not so concerned about holding tanks. But if  
20 we go down to grease interceptors below it, (d)(vi), we  
21 have a 20-inch. And that clearly is something that  
22 somebody would need to go down and do some scraping.

23 MR. STRONG: Typically those are sucked  
24 out, too.

25 MS. CAHN: Well, no. I mean, sometimes --

0101  
1 MR. REPPA: I could sit here and argue all  
2 day.

3 MR. STRONG: No. Do you access down into  
4 them?

5 MR. REPPA: We have to go in and make  
6 access for scraping the walls, because the elevation of  
7 that water, that's where the grease accumulates. And if  
8 you have a small opening, you can't clean that. And  
9 eventually it becomes an operational problem with the  
10 system.

11 MR. STRONG: I stand corrected.

12 MR. REPPA: So we do scrape the walls of  
13 the tanks when they begin to accumulate. And the larger  
14 the opening, obviously the better maintenance we can do  
15 on the system. Sorry.

16 MR. STRONG: No. That's good.

17 MR. REPPA: This is what I do. This is  
18 what we do.

19 MR. STRONG: When we do our evaluation and  
20 we increase them, we'll increase them across the board.  
21 We just want to make sure.

22 MS. CAHN: So we'll change it to 24. At  
23 least two compartments with a 24-inch minimum.

24 MR. HANSON: We'll use only unruly  
25 teenagers.

0102  
1 MS. CAHN: Yeah. Dwight will be out of a  
2 job. Only somebody smaller than five foot, six inches.

3 MR. HANSON: If you don't behave in high  
4 school, you get to clean it.

5 MS. CAHN: I'm going to the next table on  
6 kitchens. And again, I'm not sure we've introduced the  
7 table.

8 MR. APPELATE: I think you shared that  
9 when they deleted (B).

10 MS. CAHN: Oh, right. Right. So we can  
11 move on. It's in Section 9. So I'm actually done with  
12 Section 9, other than editorial under car washes.

13 (B)(I), get rid of "utilizing" and just use "using."

14 MR. STRONG: Where are you at?

15 MR. APPELEGATE: Line 696.  
16 MS. CAHN: I'm on the clean version.  
17 MR. STRONG: We see it.  
18 MR. HANSON: I'd seen the word before.  
19 MR. STRONG: We can change it.  
20 MS. JOHNSON: We changed one in one other  
21 spot.  
22 MS. CAHN: Do a word search.  
23 MR. HANSON: Because it occurred to me  
24 that "utilizing" made no sense, and it was "using." And  
25 so I saw it.

0103

1 MS. CAHN: I'm done with that section.  
2 MR. APPELEGATE: You're in Section 11?  
3 MS. CAHN: Section 11.  
4 CHAIRMAN BEDESSEM: I don't have a remark  
5 seeking change or anything like that. It's just that in  
6 the response to comments --  
7 MS. CAHN: Which response to comments,  
8 oral or revised?  
9 CHAIRMAN BEDESSEM: This is the revised  
10 response to stakeholder comments on page 50.  
11 MS. CAHN: Which page?  
12 CHAIRMAN BEDESSEM: 50. And this is kind  
13 of a general comment, but it's kind of highlighted in the  
14 responses here, is that -- we've got a response that's  
15 the second sentence. Requires a minimum distance of nine  
16 inches or 20 percent, all sorts of discussion about that.  
17 I would just like in the response to comments that it  
18 says why. Because all the response says is this is what  
19 we're doing. But there's absolutely nothing in there so  
20 that --

21 MR. STRONG: We need to add "per EPA."  
22 CHAIRMAN BEDESSEM: Whatever the reason  
23 is. And that happens in numerous spots, where if you  
24 were -- in other words, if you want something different,  
25 somebody else comes back and tries to revise the rules

0104

1 next time and looks at these comments, unless they go  
2 through every board meeting minutes, they're going to  
3 have a hard time figuring out why you guys decided to  
4 leave that.  
5 MS. JOHNSON: For the record, it's not  
6 enough to just state that we disagree with your comment  
7 or we've changed it to this. They want to know why we're  
8 changing it to this or that.  
9 MS. CAHN: Or why you're keeping it the  
10 way you're keeping it.  
11 MS. JOHNSON: We need to explain our  
12 position. We can't just state this is our position.  
13 MS. CAHN: And I'm going to give you an  
14 example on page 53. And I actually think this is part of  
15 why -- this, in general, about how you responded to  
16 comments, I think that's, in part, why I got a lot of  
17 phone calls, is because -- and I'll just give an example.  
18 And I don't mean to pick on Dwight because he happens to  
19 be sitting here. But Dwight had a comment, 9(B)(1),  
20 about the access riser should be a minimum of 24 inches.  
21 And he gives a reason why. It's too difficult to access  
22 the tank interior if needed to do repairs through a  
23 20-inch riser. The suggestion is from experience. It  
24 can be very difficult to get through an access riser more  
25 than two feet tall and 20 inches in diameter. Typically

0105

1 most pump tank openings are 24 inches in diameter.  
2 Reducing this diameter doesn't make sense.

3 And the response back was, well, it's always  
4 been that way, so we're going to keep it that way. And I  
5 think that is not really responsive to comment. He says  
6 the riser diameter has always been 20 inches at a  
7 minimum. We are maintaining that requirement. If you  
8 specify a tank with a 24-inch diameter riser, you will  
9 still be in compliance with the rule. And I think that  
10 sort of ignores that it's difficult for somebody who is  
11 maintaining a system to get in there.

12 So I guess I would ask you to go back through  
13 the responses to comments and make sure that you really  
14 said not just we're doing it because this was the way it  
15 always was.

16 MR. STRONG: A justification.

17 MS. CAHN: Yeah. Just because it's the  
18 way you've always done it is not a good justification.

19 CHAIRMAN BEDESSEM: There's numerous  
20 comments in there where it says this is what we'd like to  
21 see. Really doesn't say why it's what you want to see.

22 MS. JOHNSON: So are you requesting that  
23 we revise our responses again? Is that the request that  
24 you're making?

25 CHAIRMAN BEDESSEM: I think that would

0106

1 minimize some of the phone call requests. Because I  
2 think people are not understanding responses. So the  
3 people that have made comments may not feel that they've  
4 been addressed. Because you've answered them, but they  
5 don't understand why the answer is the way it is.

6 MS. CAHN: Or there isn't enough  
7 information in the response to defend why you're doing  
8 it. So then somebody is going to go, "Well, I was blown  
9 off." So I think that's how people feel. And I also  
10 think to look at the comments again to see if, can we  
11 incorporate these comments without making it so that  
12 we're going to have more failures or something? Is that  
13 a good comment -- because the whole point, we're all  
14 trying to install systems that won't fail and are easy to  
15 maintain. We all have the same interest at heart. And  
16 so just make sure that if it is something that's been  
17 requested by a stakeholder that you can incorporate, then  
18 let's do that.

19 MR. CRIPE: Madam Chair, this is Rich  
20 Cripe. I believe it's our intent that we are trying to  
21 be responsive, whether that was understood that way or  
22 perceived that way. We will review what the standard is  
23 on those openings. What I recollect, without having  
24 something in front of me, but that was what the standard  
25 was. And in point of question, if we find that that's

0107

1 what the case is and we do go back like you guys have  
2 asked us to do and change the comments, and for whatever  
3 reason, if, for sake of just discussion -- because I'm  
4 not trying to argue or anything. But say the openings  
5 are 20. Then would you be acceptable that if we set a  
6 minimum of 20 -- because what my question is more  
7 directed is, if they're 24, I don't think any of us are  
8 arguing that. But if they're 20, then we're going to  
9 have manufacturers go back and do something different if  
10 that's what the standard is. And they'll have to

091913 water quality

11 reconfigure things if that's what it is. Like I said, I  
12 don't have that readily in front of me at the moment.

13 MR. APPLGATE: Well, I think to speak as  
14 one board member, a safety issue is raised or a  
15 maintenance issue was raised. If you guys go back and  
16 find out that all manufacturers have 20-inch openings,  
17 then I think -- you know, the gentleman has a comment  
18 that maybe the State of Wyoming should go, and there's  
19 another avenue to try to get the standards changed for  
20 septic tanks. But it may not be this board. Because we  
21 don't want to necessarily put in a requirement that  
22 somehow makes it to where you have to buy custom tanks.  
23 But the gentleman might be correct that most of the tanks  
24 now are being built at 24 inches. And if that's the  
25 case, then -- so I think we're trying to be reasonable.

0108

1 I think we appreciate the comment was raised. You guys  
2 go back and look. And if 80 percent or some percentage  
3 of a majority of the tank providers are providing 24-inch  
4 openings, then we should have that reflected in the red.

5 Does that make sense?

6 MS. CAHN: Yeah. I think maybe in  
7 Cheyenne, you're missing some of our conversation,  
8 perhaps, or we're not coming through on the phone. But  
9 that's what we agreed to, Rich.

10 MR. CRIPE: We actually heard all of that  
11 discussion. There wasn't any breaks. I was just getting  
12 clarification that we're all on the same page. Because  
13 we wandered a few times back and forth on the subject,  
14 and I just wanted to be crystal-clear as to what the  
15 intent was. So we did not misunderstand.

16 CHAIRMAN BEDESSEM: That's perfect,  
17 because also, when you respond to comments, then there's  
18 a basis for that decision, saying, you know, we looked at  
19 the range of septic tanks that were approved and offered,  
20 and the majority were this size opening. And then it  
21 shows that the comment was followed through on and so  
22 forth.

23 MR. CRIPE: Will do.

24 CHAIRMAN BEDESSEM: Sounds good.

25 MS. CAHN: We need to get to greywater.

0109

1 Are we going to get kicked out of here at 3:00?

2 MR. STRONG: I don't know, but I can find  
3 out.

4 CHAIRMAN BEDESSEM: What section are we up  
5 to?

6 MS. CAHN: I'm up to Section 11. And I'm  
7 on standard beds, (vi)(A), (vi)(A).

8 MR. TILLMAN: Madam Chair?

9 CHAIRMAN BEDESSEM: Yes.

10 MR. TILLMAN: I've got a question. This  
11 is Bill Tillman back in Cheyenne again. I understand  
12 that you would like -- the board would like for us to go  
13 back and look at our response to comments. But I guess,  
14 listening to one of the board members -- I'm not sure  
15 which one it was -- when they said that some of the  
16 people felt like our answers didn't satisfy them, how are  
17 we supposed to interpret that? We just read them again  
18 and know that, oh, they didn't like this comment or we  
19 need to expand on it. How are we supposed to know which  
20 ones that need further explanation?

21 MR. APPLGATE: I didn't raise the

22 comment, but I have a comment towards that. I think  
23 earlier in discussion, you sort of heard my similar  
24 response to the comments from the vendor RockVale. I  
25 think if you read through the comments, it's pretty

0110

1 apparent. Some of them you just said we're not making a  
2 change. We could go through and identify them all for  
3 you. And I think that's not necessary. I think you can  
4 go through them. And if you have a response where you  
5 provide an explanation of why you did or didn't accept  
6 the change, then the response was okay. And in general,  
7 I think there were several of us that felt this response  
8 to comments -- they don't want to be critical, but I'll  
9 be critical. I don't think this response to comments did  
10 as good a job as we have seen in some cases where an  
11 explanation is provided for why a change is or isn't  
12 made.

13 MR. STRONG: Correct me if I'm wrong, but  
14 essentially you want to see that we answer, state what  
15 we're going to do and provide a justification of why we  
16 did what we did?

17 MR. APPLGATE: That's correct.

18 MS. CAHN: And on top of that, not just  
19 come back with exactly the same thing. If it's easy to  
20 incorporate the request of the commenter or something  
21 that -- you know, have an open mind that maybe some of  
22 these ones you're going to go back and change, that, oh,  
23 yeah, now I see what they're saying. We could do that.  
24 Let's change it.

25 MR. TILLMAN: I understand that, Madam

0111

1 Chair. But in some of the comments that were given, they  
2 were more opinions and not statements of, I would like  
3 you to do this for this reason. It was someone's opinion  
4 that it should be this. And those are hard to understand  
5 exactly. How do you -- how do you answer someone's  
6 opinion when you disagree with that?

7 MR. APPLGATE: Again, I think if the  
8 comment doesn't provide a rationale -- again, there was a  
9 very good example that Lorie just provided from the  
10 gentleman who wanted the 24-inch opening. So he provided  
11 a very clear reason why he wanted the openings, and the  
12 response was simply, no, we're not going to do that.

13 MS. CAHN: It's because it's the way we've  
14 always done it.

15 MR. APPLGATE: So, if the request does  
16 not provide much explanation, then I suppose it's fair  
17 for you not to provide much explanation. But if the  
18 comment has what appears to be some sort of rational  
19 argument behind it, then you should try to balance your  
20 response with a reply of similar detail.

21 MS. CAHN: And also, since you guys had  
22 convened -- which I thought was a great idea. You  
23 convened a stakeholder group of practitioners, people  
24 within DEQ, practitioners out in the field, vendors, you  
25 know, counties. You convened the stakeholder group. You

0112

1 know how to get ahold of all those people. So, if you  
2 don't understand somebody's question, get on the phone  
3 and call them. Talk to them about it.

4 MR. APPLGATE: I'm going to make another  
5 point. When you decide you want to do this stakeholder  
6 outreach, you're basically engaging in a collaborative

7 public process that requires extra work on everyone's  
8 part. And so, when you solicit those comments from all  
9 these stakeholders, the worst thing you can do is be sort  
10 of -- and I'm not suggesting you did this intentionally.  
11 But if the response to comments appears cavalier, then  
12 you have lost the whole kind of faith and trust that was  
13 inherent to the process.

14 All we're saying is go back and look at the  
15 response to comments and add explanation when you did not  
16 accept a requested change. I believe that most people,  
17 if they see that you thought about it and that you have a  
18 reason for why you're not accepting it, will at least  
19 feel like the process was true to their investment in the  
20 process.

21 MR. STRONG: We will do that.

22 MR. TILLMAN: All right. Thank you.

23 CHAIRMAN BEDESSEM: What section are we up  
24 to now?

25 MS. CAHN: 11.

0113

1 MR. APPLGATE: No.

2 MS. CAHN: Dave wants to skip to 16 and  
3 see if we have time to come back. Is that correct?

4 MR. APPLGATE: I do. Do you need a  
5 breather?

6 MS. CAHN: No, I don't.

7 MR. APPLGATE: I was going to take over  
8 for 16. My comments are probably much less detailed than  
9 yours. So let me frame up some general comments on  
10 greywater, and you can jump in with your detailed ones.  
11 Is that okay?

12 MS. CAHN: Yes.

13 MR. APPLGATE: So my general comments on  
14 greywater is I'm trying to understand if the -- if we're  
15 trying to encourage or discourage greywater systems.  
16 Now, you may think that you're not doing either, but  
17 really, in a regulatory framework, that's sort of what  
18 happens. You're either encouraging that to occur or  
19 discouraging it by how challenging or difficult the  
20 regulations are.

21 So, when I read the greywater regulations,  
22 which are like nine pages out of this overall document,  
23 they take out a lot in terms of just magnitude and  
24 length. And in particular, some of the requirements  
25 struck me as being pretty detrimental to people wanting

0114

1 to do greywater systems. The one in particular that  
2 struck me was the disinfectant requirement. And I'm  
3 thinking, so philosophically, share with me, where is the  
4 Department on greywater systems?

5 MR. STRONG: Yes. I guess when the  
6 Department took on looking at greywater, we looked at  
7 several aspects of it. I guess the key that we have  
8 taken or are holding onto is greywater is wastewater, and  
9 it does have health risks associated with it. Probably  
10 one of the most notable things that we have seen in the  
11 studies we've done is we looked at the fecal coliform  
12 count in greywater. One study lists 170 to 3,300 count  
13 per 100 milliliters. Another study says it goes up to  
14 560,000 counts per 100 milliliter. So we are concerned  
15 at protecting the public health with the use of  
16 greywater. If these systems aren't properly maintained  
17 or properly operated, they can build up a large health

18 issue.

19 MR. APPLGATE: So, with that comment,  
20 what -- in your response to comments, what references --  
21 this is a technical issue in the sense of,  
22 philosophically, you want to treat it as wastewater.  
23 You're making reference to studies. What are these  
24 studies, and where are you getting the numbers that  
25 you're quoting?

0115

1 MR. STRONG: The study I'm referencing  
2 that goes up to 3,300 was a study prepared by the  
3 Massachusetts Department of Environmental Protection in  
4 December of 2002, where they did a study analyzing the  
5 quality of the greywater for various contaminants to see  
6 what was there and what wasn't. There are several other  
7 studies out there.

8 The other issue we looked at was looking at  
9 surrounding areas or surrounding states and what they do  
10 and how they regulate greywater. And the majority of  
11 them say no surface irrigation. Arizona says no surface  
12 irrigation. You're not supposed to use your water from  
13 your washing machine or from your kitchen sink. There's  
14 various requirements. But the majority of them view it  
15 as wastewater and that certain requirements need to be  
16 met. Just can't apply to the surface and that be  
17 adequate.

18 MR. APPLGATE: So, in Wyoming, do we have  
19 any sense of how many greywater systems there are out  
20 there?

21 MR. STRONG: No.

22 MR. APPLGATE: So I'm not sure where I  
23 stand on greywater exactly because I don't have a lot of  
24 background in it. But I do believe the regulations as  
25 written are pretty discouraging. And in the sense that

0116

1 we might want to encourage recycling of water in the  
2 West, getting what would be a larger scale sort of  
3 long-term concerns about water usage and conservation,  
4 greywater may be one part of that water conservation  
5 solution. And I don't get any sense that these  
6 regulations are going to encourage or facilitate the use  
7 of greywater.

8 Now, if that's the Department's position, then  
9 I guess maybe that opens up a wider philosophical  
10 discussion of how do we balance the risk of greywater,  
11 versus the water conservation balances of greywater? But  
12 for the record, I don't think these regulations are at  
13 all encouraging. Any person that wanted a greywater  
14 system would be convinced pretty quickly that it wasn't  
15 worth the time they invested.

16 MR. STRONG: Well, as a comment, we had  
17 this very debate internally in our office extensively.  
18 And trying to balance the benefit of greywater, versus  
19 the public health risk, was very challenging to us. What  
20 we utilized is we have Chapter 21, which talks about the  
21 reuse of -- reuse of wastewater, treated wastewater. And  
22 we followed a lot of the same parameters that are in  
23 there as far as fecal counts and those things that have  
24 already been established in Chapter 21. I don't think  
25 it's our view to discourage the use of greywater. We

0117

1 just want it to be safely used. And this is what we felt  
2 we had to do to achieve that.



3 MR. APPLGATE: Well, as someone who  
4 represents the regulated community, I can tell you the  
5 regulations often discourage certain activities. And  
6 your response, even if you didn't intend to, in all  
7 fairness, is a pretty typical regulatory response. "Oh,  
8 we didn't mean to discourage it." It's sort of like  
9 Wyoming coal and regulations we're going to see here  
10 shortly regarding CO2 emissions on coal. They're not  
11 discouraging it. They're just making it so cost-  
12 prohibitive that no one is going to build a coal-fired  
13 power plant. You're not discouraging greywater systems.  
14 You're just making it so cost-prohibitive that no one is  
15 going to do it.

16 MR. CRIPE: Madam Chair and Board  
17 Member -- who was that? Applegate?

18 MR. APPLGATE: That's correct.

19 MR. CRIPE: I apologize. We don't have  
20 the luxury of seeing who's talking, so I'm guessing who  
21 is. Was that Board Member Mr. Chairman -- or,  
22 Mr. Applegate that was talking there?

23 CHAIRMAN BEDESSEM: Yes. Mr. Applegate is  
24 the industry representative on the advisory board. We'll  
25 try to do better as far as identifying ourselves.

0118

1 MR. CRIPE: It was not our intent to  
2 discourage it. However, we did provide at the last  
3 meeting -- which maybe it wasn't shared with you. Maybe  
4 it was. I don't know -- a critical review of regulatory  
5 incentives and impediments on on-site greywater reuse in  
6 the United States. And it looked at all 48 states. In  
7 general and not simplifying it, it was my understanding  
8 when I read it that, really, we were more in the line of  
9 putting something there in agreement than not. And they  
10 went and reviewed everybody on there.

11 The only thing that we would need to do further  
12 to encourage, which we've probably not elaborated on, is  
13 the education and the website, going further with it,  
14 which we plan to do to encourage those systems. But for  
15 the most part, what fell out of that was inconsistency in  
16 the regulations and clarification and that. And that  
17 kind of guided where we went with the greywater. If  
18 there were some things that we could streamline and maybe  
19 make it clearer, we would be more than happy to entertain  
20 that. But it was our intent to follow that framework and  
21 that paper that was done at the University of California  
22 in 2012.

23 MR. APPLGATE: So this is Dave Applegate  
24 again. I'm looking -- I actually missed the last  
25 meeting, and I'm looking at my fellow board members, and

0119

1 none of them are acknowledging the receipt of that study.

2 MS. JOHNSON: I believe I sent it out the  
3 Monday after the board meeting.

4 MR. CRIPE: Yeah. I can give you the date  
5 that it was sent. Now, whether you did or didn't get it,  
6 we'd be more than happy to provide that again. But I  
7 believe it was the 17th of June when it got sent out by  
8 e-mail. Whether electronics lined up or not, we did send  
9 it out.

10 MR. APPLGATE: It is very possible that  
11 it got sent out and we might not have understood exactly  
12 the context in which it was being sent. But I guess I  
13 could just make one comment. The need for disinfecting

14 alone, to me, almost kills the desire to want to do this.  
15 That one requirement I think would be pretty onerous. So  
16 I guess I would ask you for -- maybe this report you sent  
17 out had this. But do the majority -- most states are  
18 encouraging greywater use would be a question I would  
19 have. And do they require disinfecting of their  
20 greywater is another question I would have.

21 MR. STRONG: I can answer that. I believe  
22 on one is Arizona. They promoted it. And they do not  
23 allow surface application.

24 MS. CAHN: Either does Texas.

25 MR. STRONG: And the disinfection

0120

1 requirement is only for surface application. We got a  
2 lot of requests, a lot of comments that they wanted to  
3 see a means to do surface application, and disinfection  
4 was the only method we could come up with to address that  
5 request.

6 MS. CAHN: One thought that I have -- and  
7 this is Lorie -- was that either we -- we could look at  
8 what are the sources that cause greywater to have a high  
9 BOD? Those are going to be laundry when somebody is  
10 doing diapers, kitchen sinks, potentially.

11 MR. STRONG: Bathing.

12 MS. CAHN: What's that?

13 MR. STRONG: Bathing can with young  
14 children.

15 MS. CAHN: And one thought to simplify  
16 these things -- and I understand you want to have  
17 subsurface -- people want subsurface irrigation -- or,  
18 surface irrigation. I would say you could just say  
19 surface irrigation and the disinfection goes away. But  
20 that's not going to satisfy the people that want to use  
21 it for surface irrigation.

22 Another thing would be to say, okay, you're  
23 going to have a diverter. When somebody is washing  
24 diapers, they have to divert to the blackwater system.  
25 They can't use it as greywater when you're doing a

0121

1 laundry load of diapers. You have to turn a knob. I'm  
2 just wondering if by making some restrictions -- like  
3 some states, like Texas, would restrict kitchen sinks  
4 because they found that kitchen sinks had high BOD. So  
5 we could make it less restrictive in the sense of being  
6 simpler but maybe restricting more of the problem source  
7 areas. I don't know.

8 MR. STRONG: We could restrict the problem  
9 source areas. The kitchen sink is a high one. The  
10 laundry facilities and other -- and saying change a  
11 diverter valve when you wash diapers, I don't know would  
12 be very effective. I would recommend eliminating it  
13 altogether, because that is something they would have to  
14 do. And if they don't, their system could potentially be  
15 more contaminated. And it's one of those, how do you  
16 verify that they use that valve when the laundry was  
17 done? You could verify whether it's connected to the  
18 greywater system or not, would be my only comment. We  
19 were trying to balance the request and trying to meet the  
20 demand, yet protect the public health.

21 MR. HANSON: Madam Chair, I think in some  
22 ways we are shooting with cannons after sparrows here.  
23 Because I have grandchildren, and who the heck is using  
24 washing diapers these days? They're all packed up and

25 they go into the landfill. Not that I like that. But  
0122

1 that doesn't happen anymore.

2 MS. CAHN: I washed diapers 20 years  
3 ago --

4 MR. HANSON: Yeah, 20 years ago.

5 MS. CAHN: -- 24 years ago. And then  
6 there was a diaper service, and I switched immediately  
7 and let somebody else wash the diapers.

8 MR. HANSON: We've concentrated on that  
9 one. And I can see some kitchen facilities, you have  
10 people who pour gasoline down their kitchen sink, you  
11 know, or something like that and recycle oil that way or  
12 whatever, stupid things. But for the most part, I think  
13 what you're talking about with greywater is fairly usable  
14 water. And I think what you're stating here, it should  
15 be fairly safe. What you're using and what you don't use  
16 makes some sense to me. But most of it, I think most  
17 people are doing it reasonably well.

18 MR. STRONG: I guess I wouldn't agree  
19 completely that greywater is safe just as is. Even  
20 without the diapers, I would disagree with you on that.  
21 I guess our concern or the information we have seen is  
22 the people using greywater now have the mentality of  
23 recycle, reuse. And that includes -- cloth diapers are  
24 recycling, are reusing. And they follow that line, and  
25 they're more likely to use diapers. And I can't remember  
0123

1 who I talked to about it. And he said that very same  
2 thing. "I have a greywater system. I'm very green-  
3 oriented. Therefore, I do that." And for the life of  
4 me, I can't remember who. So it's -- we're addressing a  
5 segment of the population that believes in that. And we  
6 just don't want to see them get sick because of the  
7 greywater system. That's our concern.

8 MR. JONES: I'll weigh in a little bit,  
9 because I guess I've thought about this because the house  
10 I live in is conditioned to a greywater system. But then  
11 as I studied more and more in depth, I think the rules --  
12 I think we have to walk before we run. And I guess the  
13 simplest way is to catch a little bit of your shower  
14 water from the drain and put it in a jar and see how long  
15 it lasts. And it's going to get scum, and it's going to  
16 get other stuff.

17 To effectively use greywater, I think you have  
18 to start with a whole system of what soap you use, what  
19 detergents, what shampoos. All of those things that  
20 clean the body have to be considered, because some of  
21 them are going to be more conducive to corrosion, if you  
22 want to call it that, or scum in that tank. And there's  
23 going to have to be a certain amount of disinfectant  
24 through the system, in my opinion, anyway, to keep a  
25 clean system to where you're not jeopardizing the public.  
0124

1 If you've ever parked your car along a street  
2 that is using recycled water -- legally or illegally,  
3 doesn't matter -- and that sprinkler happens to hit your  
4 vehicle, it's tough stuff to get off. So there are  
5 probably systems out there that are not regulated. But I  
6 guess my ultimate suggestion would be to get a group of  
7 stakeholders that are interested in it and get their  
8 input as to what regulations they think are very, very  
9 important to protect the environment and also to protect

10 the public.

11 MR. STRONG: We've had stakeholder  
12 comments on greywater.

13 MR. JONES: Have you?

14 MR. STRONG: Yes. And from the delegated  
15 counties that have had these permit by rules or these  
16 greywater systems were very concerned, and they were very  
17 supportive of that regulation because it established what  
18 needed to be done and how it could be done so that these  
19 systems could function safely.

20 CHAIRMAN BEDESSEM: I have a question.  
21 What you specify, you have subsurface irrigation treated  
22 differently than surface irrigation, where the  
23 disinfection is just required for the surface irrigation.  
24 And then when you talk about setbacks and the 30-foot  
25 buffer zone, you say the buffer zone requirement may be

0125  
1 met by the use of drip irrigation. So, if you have drip  
2 irrigation, you don't have to have a 30-foot buffer.

3 MR. STRONG: Correct.

4 CHAIRMAN BEDESSEM: But I guess what I  
5 don't understand is, is subsurface irrigation synonymous  
6 with drip irrigation? So if they're not --

7 MR. STRONG: They can be subsurface --

8 MS. CAHN: I have that same question.

9 CHAIRMAN BEDESSEM: Because, to me, it  
10 almost seems like if you have your rules say subsurface  
11 irrigation and surface irrigation, then you have a bunch  
12 of setback rules that maybe the setback issues should be  
13 put under what applies to subsurface, what applies to  
14 surface, just because I was unclear when I read this as  
15 far as, well, then what applies back here? Because this  
16 says drip, and this says subsurface. And I wasn't sure.  
17 So take a look at that.

18 MR. STRONG: Our intent got  
19 miscommunicated. We'll get that corrected.

20 MS. CAHN: Is there another kind of  
21 irrigation for surface irrigation besides spray  
22 irrigation? You got drip. Right?

23 MR. STRONG: You can do flood irrigation.

24 MS. CAHN: You can flood or you can drip.

25 MR. STRONG: Flood, drip or spray, yes.

0126  
1 MS. CAHN: So is part of -- a lot of the  
2 problems, it seems like, is spray irrigation is a lot of  
3 the problem. So, if we didn't allow spray irrigation,  
4 people could still surface-irrigate with drip or flood,  
5 and maybe the requirements would be -- could be less  
6 restrictive if we got rid of spray -- I mean, some states  
7 have done that, where they just said, okay, no spray  
8 irrigation. So would that be any -- people have said we  
9 want to be able to irrigate at the surface. We know  
10 there's problems with spray irrigation, so maybe we could  
11 just -- I think Texas is one where they say no spray  
12 irrigation.

13 MR. HANSON: And get it on your car.

14 MR. STRONG: That's right.

15 MR. CRIFE: Ms. Cahn, this is Rich in  
16 Cheyenne. I hear your point of view. I appreciate your  
17 point of view. I guess I would ask a question and put it  
18 in the Hatfield/McCoy situation of, okay, say we  
19 entertain and did that and it floods off the property and  
20 goes onto someone else's property. Then we have an issue

21 of someone being offended, in some cases maybe rightfully  
22 so, because they have it coming on their property when  
23 they choose not to have that.

24 MS. CAHN: But, to me, a simple fix to  
25 that is to say you have to be able to keep it on your

0127  
1 property.

2 MR. CRIPE: But then regulatorily, how  
3 does that get achieved? I mean, are you going to then be  
4 restrictive and say, well, you can put so many gallons  
5 on, and you got to berm around your property? We don't  
6 like mosquitoes or whatever be the case. How do you make  
7 that happen? Because topography is not always your  
8 friend.

9 MR. APPLGATE: Independent of these  
10 rules, regulation of irrigation, you can't have water  
11 going to someone else's property, anyway. I mean, that's  
12 a trespass issue. That's independent of greywater. I  
13 mean, if your neighbor -- if you had a problem with your  
14 neighbor in terms of emptying water on your property, you  
15 have legal recourse independent of these regulations.

16 MR. CRIPE: So we would allow them a  
17 nuisance?

18 MR. APPLGATE: No, you wouldn't allow a  
19 nuisance. We're not making any request that you allow  
20 flood irrigation of someone else's property.

21 MS. CAHN: We're saying make it a  
22 requirement that this has to stay on your property.  
23 Greywater has to stay on your property. It can't become  
24 a nuisance.

25 MR. CRIPE: Okay. Then there's the health  
0128

1 things that come up. So then there's the issue of public  
2 health. There's got to be something that sets a limit on  
3 that, because it's pretty clear you don't want to have  
4 some of this get on you or kids or animals or food crops  
5 or things like that. What would you propose there if the  
6 discussion was you guys wanted to get rid of  
7 disinfection, possibly, or that when you have fecal  
8 counts up there? I propose to hear some ideas.

9 MR. APPLGATE: Well, I'd like to look at  
10 the report you gave me. I guess I'm just not convinced  
11 of the risk. You're falling back on what is usually a  
12 pretty common fallback. Oh, the risk is too high. We  
13 need to regulate it. That's an easy fallback. So I'd  
14 like to understand better what the risks are and what are  
15 the exposures to that risk.

16 Again, I'm not well versed in this particular  
17 risk assessment, but I believe that you may be  
18 overstating the risk. And I want to better understand  
19 it. And I'll leave it at that. I mean, if we're  
20 trying -- you could try -- the argument of risk  
21 management is a degree of gradation. And you can always  
22 argue that there's risk that you should regulate. And  
23 again, this is an issue of balancing water reuse and  
24 recycling against risk. And I'm not saying I have an  
25 answer to that. All I was saying from the beginning is I

0129  
1 believe you've written the regulation in such a manner  
2 that you're discouraging the use of greywater. If that's  
3 your intent, you've done that successfully. And if  
4 that's not your intent, then we should step back and ask  
5 ourselves if we're managing the risk appropriately.

6 MS. CAHN: And I guess I'd go back to my  
7 comment that if you look for what are the worst sources  
8 with greywater, can we eliminate those? And we say  
9 there's no surface irrigation. They can't leave your  
10 property. Maybe we eliminate kitchen sinks. If kitchen  
11 sinks is a problem, we eliminate them, kitchen sinks, and  
12 say, okay, we'll use greywater but not kitchen sinks.

13 MR. STRONG: I can't say -- you know,  
14 we're back and forth. And we did look at saying no  
15 surface irrigation. We got some grief. And we looked at  
16 no kitchen sinks, and we got some grief. We were trying  
17 to meet the demand.

18 A couple comments I'll make just for reference,  
19 we do have a requirement that the greywater cannot leave  
20 the property. When you look at the greywater and water  
21 quality, I ask that you look at Chapter 21, which is our  
22 regulation for reuse water, reclaimed water, where we  
23 put -- there's already regulation in place that put  
24 restrictions on how that water could be used, which would  
25 be very similar to greywater, as an FYI so we get all the

0130  
1 bases covered.

2 MR. TOURNEY: I just had a question for  
3 Applegate. I wanted to kind of try to bridge an  
4 understanding on the risk management just to understand.  
5 You don't believe that greywater poses much of a risk. I  
6 was just curious if you had some references or things  
7 that you could share with us that --

8 MR. APPLGATE: No. I don't want to get  
9 into a debate with you. What I said is I don't  
10 understand the risk. So we could get into an adversarial  
11 discussion, but that's not where I want to go. What I  
12 said is there's interest in greywater use. Your risk  
13 management approach is going to discourage its use. So,  
14 no. I need to study the issue better. You just haven't  
15 convinced me that the regulatory framework that you've  
16 come up with is necessary.

17 MR. TOURNEY: No. I wasn't meaning it to  
18 be adversarial in that comment. I was just trying to  
19 understand where you're coming from more with that  
20 understanding.

21 MR. STRONG: Madam Chair, members of the  
22 board, is there any other information you would like for  
23 us to compile for you with regards to greywater so, at  
24 our next meeting, we can discuss this more thoroughly?  
25 Would you like a list of the surrounding state

0131  
1 regulations or anything along those lines we could  
2 provide you to help?

3 MR. APPLGATE: I believe that would be  
4 helpful.

5 MR. STRONG: I'll compile those, some of  
6 the studies we've utilized, some of the EPA stuff that we  
7 have and get that to you guys for your review.

8 CHAIRMAN BEDESSEM: We have a board member  
9 that --

10 MR. HANSON: I have to make it to Buffalo  
11 before the deer hit me. See you all. Thank you.

12 MR. STRONG: Madam Chair, could I request  
13 a short break?

14 CHAIRMAN BEDESSEM: Yes.  
15 (Hearing proceedings recessed  
16 3:04 p.m. to 3:16 p.m.)

091913 water quality

17 CHAIRMAN BEDESSEM: We are reconvening the  
18 Water and Waste Advisory Board. For the record, Board  
19 Member Dave Applegate departed at recess, so we have  
20 three remaining board members.

21 MR. STRONG: We're wearing you down.

22 CHAIRMAN BEDESSEM: We'll go ahead and  
23 continue. You're still on Section 16. Do we have any  
24 additional comments from the board?

25 MS. CAHN: Yes. I'm having a hard time

0132

1 following Section (b)(A) with the number of occupants of  
2 each dwelling unit shall be calculated as follows. And  
3 it says second and subsequent bedrooms equals two  
4 occupants. Does that mean if you have eight bedrooms,  
5 you still only have two occupants, so you have -- so you  
6 have two for your first bedroom, and then you have -- is  
7 it two occupants per bedroom?

8 MR. STRONG: Yes.

9 MS. CAHN: So that's the same as the first  
10 bedroom, which is two occupants. So why don't we just  
11 say the number of occupants of each dwelling shall be  
12 calculated at two occupants per bedroom?

13 MR. STRONG: That would be too easy. We  
14 will correct that.

15 MS. CAHN: Because I've basically got,  
16 okay, we have a four maximum times 40 gallons is 160  
17 gallons. How do we get to a thousand gallons? So I was  
18 having problems with the math.

19 So, in (iii), Roman Numeral (iii)(B), the  
20 surface irrigation -- I'm sorry. I'm on -- (iii), we've  
21 really already discussed that maybe we would not allow  
22 spray irrigation. It might be something to see if  
23 there's some way we can allow some surface irrigation  
24 without disinfection if it's a possibility.

25 On (iv), setbacks, again, I'm just -- it seems

0133

1 like a 30-foot buffer, is that needed? If we -- I mean,  
2 for septic systems, we have a ten-foot setback, and here  
3 we have a 30-foot setback. And maybe the setbacks are  
4 different, because we talked about maybe the setbacks  
5 will be different per use. So, if you're doing  
6 subsurface irrigation, the setback might be less than if  
7 we're doing surface.

8 MR. STRONG: Yeah. The 30-foot's for  
9 surface, what's going to be spray irrigation that's going  
10 to travel with wind that we don't have in Wyoming.

11 MS. CAHN: I think we shouldn't allow  
12 spray irrigation. I'm serious. And then that may solve  
13 some of the problems, anyways, and then we can revise  
14 those setbacks.

15 MR. STRONG: We have discussed that in  
16 great length. And there are several people in the office  
17 that are very against spray irrigation, and there's some  
18 that are for. And we try to find a compromise. We go  
19 into different groups. And disinfection is how we did  
20 that.

21 MS. CAHN: And I'm thinking if spray  
22 irrigation is the problem, that's where you think you  
23 need the disinfection, let's get rid of the disinfection.  
24 Let's get rid of the spray irrigation. And then maybe  
25 that simplifies it. Because I know some people who

0134

1 called me read this disinfection and thought it applied

2 to everything. And I know it doesn't. And I had to say,  
3 no, no, it doesn't. But people see this disinfection and  
4 they go, oh, my word. This isn't blackwater. This is  
5 greywater.

6 MR. JONES: Isn't spray irrigation covered  
7 on page 30? Or is that under a different -- I can't keep  
8 track of all the numbers. But it says spray irrigation  
9 of greywater is not permitted under (II) on 1283 or 84.

10 MS. CAHN: Yeah.

11 MR. STRONG: Yeah. I'm sorry. We talked  
12 about a lot of subjects, and my mind's not shifting fast  
13 enough. We do not allow spray irrigation, but we were  
14 concerned about the flood irrigation and the animals or  
15 the kids getting into it and having the diseases present  
16 in that water getting to them.

17 MS. CAHN: Don't we also say it can't be  
18 where pets and kids are getting into it? Don't we say  
19 that, also?

20 MR. STRONG: Yes, we do.

21 MS. CAHN: Part of me just thinks you keep  
22 it on your own property. If you can't protect your  
23 children by being sensible and saying, I want to use  
24 greywater, but I don't want my kids and my pets to get  
25 sick, then part of me says if somebody gets sick because

0135  
1 they're blatantly ignoring what's in the regulations, if  
2 we can make it to -- if we can get the regulations to  
3 something that is reasonable and makes sense, you can  
4 never regulate against somebody being stupid or  
5 nonprotective of their own family or their pet.

6 MR. STRONG: No, I understand that. And  
7 I understand what you're saying. But our concern was  
8 it's like the speed limit. Everybody speeds. If someone  
9 lets their greywater leave their property and gets the  
10 neighbor kid sick, that's what we're concerned about.

11 MS. CAHN: But also, the neighbor has  
12 recourse to then -- I mean, obviously you don't want your  
13 neighbor to get sick. You don't want that to happen.  
14 Obviously the design of the system has to be such that it  
15 won't leave their property. If it can't be designed to  
16 not leave their property, they don't get it.

17 MR. STRONG: I think that's going to be a  
18 discussion for our next meeting after we review the  
19 information and I provide you some documentation, and we  
20 can go from there.

21 CHAIRMAN BEDESSEM: On page 30, where you  
22 have surface irrigation, you've got flood irrigation and  
23 spray irrigation. You say spray irrigation is not  
24 allowed. You said that the third category is drip  
25 irrigation. But there's nothing in here about that, so I

0136  
1 don't know if that's an oversight or if there are  
2 particular requirements.

3 MR. STRONG: I think we have a separate  
4 section for irrigation.

5 MS. CAHN: But, see, now that's considered  
6 a subsurface irrigation, and before, you told me it was a  
7 surface.

8 MR. STRONG: We'll need to -- let me take  
9 a second to look at that and make sure we got that  
10 clearly defined, because it depends on how it pools and  
11 that kind of stuff.

12 MR. CRIPPE: Madam Chair, this is Rich in



13 Cheyenne. I don't know which document you might be  
14 looking at. I'm looking at a clean-copy one. And on  
15 page 25-29, it does indicate that that drip irrigation is  
16 under the subsurface irrigation, big (B).

17 MR. STRONG: Yes. Thank you, Rich.

18 MR. CRIFE: Did that address your  
19 question?

20 CHAIRMAN BEDESSEM: That clarifies what  
21 was said earlier, except for that -- what was the part  
22 where it says drip irrigation was not subject to the  
23 buffers?

24 MR. STRONG: Yeah, it was the buffers.  
25 Surface irrigation such as flood irrigation of the yard

0137  
1 or the garden or whatever the case may be.

2 CHAIRMAN BEDESSEM: So the clarification  
3 with -- that terminology in there saying subsurface  
4 irrigation is not subject to that buffer would take care  
5 of that issue?

6 MR. STRONG: Yes.

7 CHAIRMAN BEDESSEM: Okay. Thank you.  
8 I think we got that clear now, Rich. Thank  
9 you.

10 MS. CAHN: I'm assuming there's going to  
11 be some kind of design manual that will go along with  
12 this. Is that correct?

13 MR. STRONG: Yeah. There will be a  
14 guidance document and design manual.

15 MS. CAHN: So I just question whether  
16 perhaps some of the things that are in here, like maybe  
17 filters, pumps, could that be part of the design manual,  
18 as opposed to being part of the regulation? Because for  
19 some small systems, you're not going to have -- aren't  
20 going to have pumps, filters, depending how it's used if  
21 they're not drip irrigating. So, anyways, I guess it  
22 would be looking to see if there's things that belong.  
23 And I'll leave it up to you guys. But look and see if  
24 some of these things belong in the design manual, rather  
25 than --

0138  
1 MR. STRONG: We'll take a second and look  
2 at that. Keep in mind, the regulations are enforceable.  
3 The guidance document is not. Yes, we'll take a second  
4 look.

5 MS. CAHN: And then I just have sort of --  
6 I don't know how practical this is. It's just a  
7 question. To make people aware -- one of the big things  
8 you're worried about is going to be fecal coliform, it  
9 sounds like, or some biochemical or biological  
10 pathogen -- or, not pathogen. It's not a pathogen, but  
11 levels that are harmful to health. Is there some simple  
12 test like fecal coliform or something that greywater  
13 users would -- you know, it's not expensive, that they  
14 would have to do once every so often, just so they could  
15 see what the quality of their water is and adjust their  
16 pattern of usage so that they become aware of what's in  
17 their water? I don't know. I'm just throwing it out as  
18 an idea.

19 MR. STRONG: I know we considered testing  
20 and trying to test for E. Coli or fecal coliform. I know  
21 it's about \$20 per test. And with our experience with  
22 the collection, those same tests get collected with water  
23 systems, wastewater systems. And not properly collecting

24 them can actually give you worse results. And we felt  
25 disinfection, where they maintain chlorine residual in

0139

1 their tank would be a simpler way for them to maintain  
2 that lower level and not have to worry about doing  
3 monthly or bi-monthly monitoring or whatever duration we  
4 determine. A floating chlorine dispenser inside the tank  
5 that maintains the residual can keep the levels knocked  
6 down. And that would be included in the guidance  
7 document, how to do that.

8 We were trying to think of the simplest way for  
9 a homeowner to maintain it, and chlorine residual is  
10 probably the easiest test to do, and they could do it  
11 with a pool kit or something.

12 MS. CAHN: I am now on the last -- I'm  
13 going to do it this way -- the last (G) of Section 16.  
14 The volume of greywater shall not exceed an average of  
15 2,000 gallons per day. And so that is a lot of ifs. How  
16 do you get up to -- I mean, I would think an  
17 eight-bedroom house would be pretty huge, and the number  
18 of occupants, that's 40 gallons per day per occupant.

19 MR. STRONG: Our apartment complexes are  
20 along those lines. And 2,000 gallons per day reflects  
21 the other parameters we have.

22 MS. CAHN: I think that went back to my  
23 old thing where you couldn't get over 160 by the old  
24 formula. So ignore that comment.

25 On page 25 dash -- do we want to move on to

0140

1 Section 17, or do we want to go back to Section 11?

2 CHAIRMAN BEDESSEM: Can we go back?

3 Because I had a couple comments.

4 MR. STRONG: Do we have any comments on  
5 17?

6 MS. CAHN: I'm done with comments on this.

7 CHAIRMAN BEDESSEM: Isn't 17 the last one?

8 MS. CAHN: And there's also appendices.

9 CHAIRMAN BEDESSEM: Do you have any  
10 comments on that?

11 MS. CAHN: I do have comments on 17, and I  
12 do have comments on the appendix.

13 CHAIRMAN BEDESSEM: Let's go back, then.

14 MR. STRONG: We are on 11.

15 MS. CAHN: I'm on (A)(vii), on standard  
16 beds, (A). So, for standard beds, it's hard for me to  
17 understand the way the sentence is written. The soils  
18 shall be absent of clay with percolation rates faster  
19 than 60 minutes per inch.

20 CHAIRMAN BEDESSEM: The phrasing of the  
21 sentence almost sounds like, shall be absent of clay that  
22 has a percolation rate, as opposed to, shall be absent of  
23 clay and shall have percolation rates.

24 MS. CAHN: And part of my question is, is  
25 it really realistic to have any soil that is absent of

0141

1 any clay? Could we just simplify it to say percolation  
2 rates shall be faster than 60 minutes per inch? Because  
3 if there's a little, tiny bit of clay, a small section of  
4 clay that you can get to 60 minutes -- faster than 60  
5 minutes per inch, isn't that okay? When it says absent  
6 of clay --

7 MR. STRONG: What we're intending there is  
8 a situation where you have mixed materials, where they

091913 water quality

9 can selectively locate the perc hole in a sand vein but  
10 have clay veins running through there, too. That would  
11 not be appropriate. Let us take a second look at that  
12 wording and see if we can clarify.

13 MS. CAHN: I would just simplify.  
14 Percolation rate shall be faster than 60 minutes per  
15 inch.

16 MR. STRONG: Okay.

17 CHAIRMAN BEDESSEM: If you find something  
18 necessary with respect to stringers of clay, you can do  
19 that in a separate sentence, and it won't get confusing.

20 MR. STRONG: Okay.

21 MS. CAHN: I just questioned also the  
22 absence of clay, if it can really be zero-percent clay.

23 MR. STRONG: It can't be zero-percent  
24 clay, but there's a situation where selectively locating  
25 the perc test could give you a better result.

0142

1 MS. CAHN: And I think you can say it  
2 shouldn't be located in a clay.

3 MR. STRONG: Yeah. We need to come up  
4 with better terminology on distinguishing the acceptable  
5 amount of clay.

6 MS. CAHN: And I guess another question I  
7 have is, if you have a really slow perc'ing soil, I would  
8 think we would want to encourage an individual trench  
9 configuration, rather than a bed configuration. I know  
10 some states do that. Is that something that we want to  
11 consider? It's under the bed configuration. Do we want  
12 to -- for standard beds, rather than 60 minutes per inch,  
13 do we want to be more restrictive?

14 MR. STRONG: I guess we didn't intend to  
15 be more restrictive, because once it gets above 60, it  
16 defaults to a professional engineer. And he's going to  
17 use his engineering judgment to decide to establish the  
18 requirements of whether it should be a bed or trench for  
19 us to review. Depending on what kind of system or how  
20 he's proposing it, a bed may be more appropriate.

21 MS. CAHN: I guess I'm questioning the 30  
22 to 60.

23 MR. STRONG: Oh, the 30 to 60?

24 MS. CAHN: Yes. Would 30 to 60 be better?  
25 Would it be preferable to have that in a trench

0143

1 configuration, rather than a standard bed?

2 MR. STRONG: Would it be preferable? Yes.  
3 But I ask that we're being too restrictive in  
4 configurations and designs.

5 MS. CAHN: I'm glad to hear that Wyoming  
6 has a .4 percent failure rate. But I think in Teton  
7 County, it's probably higher than that, especially along  
8 Fish Creek. So I guess I'm in favor of making some of  
9 the septic tank --

10 MR. STRONG: So, when it percolates faster  
11 than 30, you want to see trenches?

12 MS. CAHN: Yeah, I would like to see it.  
13 I just think we have a lot of problems in Teton County in  
14 certain areas. We have a high groundwater table and a  
15 lot of people using septic systems. And we essentially  
16 have -- we'll see fairly soon here an impaired stream for  
17 Fish Creek, I think. I would predict it.

18 MR. STRONG: Okay. We can take a second  
19 look at it.

20 MS. CAHN: Yeah. That would be my take on  
21 it. I'm not going to be popular with my friends in  
22 Wilson, but I'd like to see it.

23 CHAIRMAN BEDESSEM: But those response to  
24 comments will support why one way or the other, and we'll  
25 go from there.

0144

1 MS. CAHN: And that's pretty much all I  
2 have for 11.

3 CHAIRMAN BEDESSEM: I didn't have anything  
4 for 11.

5 MR. STRONG: Section 12.

6 CHAIRMAN BEDESSEM: I don't have anything.

7 MS. CAHN: Can you believe it? I don't  
8 have anything for Section 12.

9 MR. STRONG: Section 13.

10 CHAIRMAN BEDESSEM: So the comment I had

11 in 13 goes back to supporting the response to comments,

12 in that there were several comments that said that the

13 standard distance was a three-foot vertical separation.

14 And this rule is updated to a four-foot vertical

15 separation distance. And the response was the four-foot

16 separation gives a little more safety factor to ensure

17 treatment of the wastewater before reaching groundwater.

18 Yes, that's a fact. Four feet is more conservative.

19 However, that's not the kind of requirement we're looking

20 for. We're looking for --

21 MR. STRONG: What we base that four foot  
22 off of?

23 CHAIRMAN BEDESSEM: Right.

24 MR. STRONG: Yes.

25 CHAIRMAN BEDESSEM: We've had problems

0145

1 between doing four based on years of operating septic  
2 systems and state we think it's important to move to  
3 four.

4 MR. STRONG: I believe it's always been  
5 four. I don't recall that it was three. But I'll have  
6 to take a second to look.

7 CHAIRMAN BEDESSEM: Ultimately the comment  
8 says the existing regulations allow --

9 MR. STRONG: We will take a second look at  
10 the comments.

11 CHAIRMAN BEDESSEM: So probably had a very  
12 good reason, but you can't tell.

13 MR. STRONG: Yeah. The EPA manuals are  
14 very specific. That's what we based it off of. So we  
15 need to include that.

16 CHAIRMAN BEDESSEM: The existing regs are  
17 three, but currently nationwide the current EPA regs are  
18 four based on a history of whatever failures that we do  
19 have. They're not really a failure. It's hard to judge  
20 that as a failure.

21 MR. STRONG: Yeah. I understand. We need  
22 to justify our statements in our decisions.

23 CHAIRMAN BEDESSEM: That's all I had on  
24 that. My next comment was on 15. So I'll leave that to  
25 Lorie.

0146

1 MS. CAHN: I am on 13(b)(ii). And here's  
2 the one where here we're between five and 60 minutes per  
3 inch. And I never -- I never understand when we allow  
4 one to five. So is this -- a gravity feed, I think we

091913 water quality

5 allowed one to 60 in here. We're allowing for a sand  
6 mound system, five to 60. And you probably have a  
7 justification for it. I just don't understand.

8 CHAIRMAN BEDESSEM: What page are you on?

9 MR. STRONG: 27, line 932.

10 MS. CAHN: Under sand mound systems, it's  
11 under (b), site requirements, Number (ii).

12 CHAIRMAN BEDESSEM: What line in the  
13 draft?

14 MS. CAHN: Well, in the clean draft, it's  
15 on 832, 831 to 833.

16 MS. JOHNSON: In the draft that I think  
17 you're in Marge, it's 932 through 934.

18 MR. STRONG: And the justification for the  
19 five minute per inch is that this sand has got a high  
20 perc rate in the sand mound portion. And when it gets  
21 down to where it needs to have something slower to  
22 provide treatment and distribution down through the  
23 system, typically a sand mound situation with high  
24 groundwater, and we want to get that slowed down to make  
25 sure that's not contaminated groundwater.

0147

1 MS. CAHN: Thank you. I'm in Section 14  
2 now. So, on the selection criteria where we're saying  
3 the size of the property -- so I'm in (a)(iii) -- of a  
4 lagoon shall not be installed on a property less than  
5 three acres in size. But we have setbacks, and the  
6 setbacks are in -- where are the setbacks?

7 MR. STRONG: Setbacks for lagoons are  
8 actually below under the general design requirements,  
9 saying that the lagoon --

10 MS. CAHN: Oh, there they are.

11 MR. STRONG: -- cannot be within 100 foot  
12 of the property line.

13 MS. CAHN: So it seems like as long as  
14 they meet the setback, why do they also need an  
15 acreage -- the three acres in size, as well? Could we  
16 rely on the setback and still -- a 100-foot setback and  
17 still be okay?

18 MR. STRONG: Rich or Bill, do you recall  
19 why the three acres was established? I do not off the  
20 top of my head.

21 MR. CRIFE: Madam Chair, Frank, that's not  
22 something that's off the top of my head that I can think.  
23 There was some rationale behind it, but it's not -- I  
24 don't recall it at this moment.

25 MS. CAHN: Anyways, just consider that,

0148

1 that perhaps the acreage isn't necessary and the setback  
2 would be appropriate. Just consider that.

3 MR. STRONG: Yeah, we will.

4 MS. CAHN: In (b)(i), the general design  
5 requirements, it refers to beyond the horizontal setback  
6 distances requirements specified in Section 6(d). I  
7 don't think that's the right reference. I'm thinking  
8 it's Table 4.

9 MR. STRONG: Yeah. It should be 6(g).  
10 You are correct. Because a lagoon system does require a  
11 septic tank. It will have to meet those setbacks  
12 established there, too.

13 MS. CAHN: So just fix the reference.

14 MR. STRONG: Uh-huh.

15 MS. CAHN: And essentially, we could

091913 water quality

16 reference that Table 4. Okay, great. Thank you.  
17 On the formula in (b)(vii), I really struggled  
18 with the wording of "the area." Area of the lagoon at  
19 the five-foot depth water level in square feet.  
20 MR. STRONG: Five-foot water depth level.  
21 Essentially, when the pond is five foot full of water,  
22 what is the surface area of the water?  
23 MS. CAHN: Could we say something like  
24 area of the lagoon calculated at the maximum water level  
25 depth, in parentheses, in square feet?

0149  
1 MR. STRONG: Yeah. We could check on that  
2 wording. It got turned around on us.  
3 CHAIRMAN BEDESSEM: Where are you at?  
4 MS. CAHN: I'm done with 14.  
5 CHAIRMAN BEDESSEM: I have the same  
6 comment in 14 that I had in 15. And that has to do with  
7 the wording of the paragraph that talks about the design  
8 package, which I think it's great that you have a design  
9 package. But I have trouble with the sentence that says,  
10 the general design requirements stated in this section  
11 are incorporated into the worksheets, such that by  
12 completing the forms, the system will comply with these  
13 requirements. I could fill out the form. Doesn't mean  
14 my system is going to be -- do you see what I mean?  
15 MR. STRONG: Properly.  
16 CHAIRMAN BEDESSEM: No. Such that the  
17 design meets --  
18 MS. CAHN: -- the requirements.  
19 CHAIRMAN BEDESSEM: -- outlined in the  
20 forms. Filling out a piece of paper doesn't make my  
21 system comply. It's the grammar in the sentence.  
22 MR. STRONG: Okay. We'll take a look at  
23 that, because we have the same sentence in here in a  
24 couple of spots. Copy/paste is great.  
25 CHAIRMAN BEDESSEM: Yeah. It's the same

0150  
1 thing.  
2 MR. STRONG: We can take a look at the  
3 wording.  
4 CHAIRMAN BEDESSEM: If the design is  
5 developed to complete --  
6 MS. CAHN: So this is in the general  
7 permits? I'm still confused.  
8 CHAIRMAN BEDESSEM: Yes, this is the  
9 general permits.  
10 MS. CAHN: So, therefore, in essence, the  
11 general permit is issued or whatever.  
12 MR. STRONG: Yes.  
13 MS. CAHN: So do we need to finish that  
14 sentence, also, in saying upon --  
15 MR. STRONG: Well, actually, the  
16 requirements for a general permit and the time lines are  
17 established in Chapter 3 of our rules and regulations.  
18 And we try not to repeat ourselves.  
19 MS. CAHN: That's good. Thank you.  
20 CHAIRMAN BEDESSEM: So, if the system is  
21 designed in accordance with those forms, it will comply?  
22 MR. STRONG: (Nods head.)  
23 MS. CAHN: I'm on 17.  
24 MR. JONES: Good. You skipped 16.  
25 MS. CAHN: We already did that. We beat

0151

1 16 to death.

2 Operations and maintenance. We have in (b),  
3 septic tanks shall be pumped out as needed to prevent  
4 solids carryover into the soil absorption system. And if  
5 I was a homeowner, I would like some definition of what's  
6 "as needed." And I know it's difficult in Teton County  
7 because we have some people who are here so  
8 intermittently. They're here two weeks out of the year.  
9 So their system probably doesn't need to be pumped out as  
10 often as other people's. And there's other places where  
11 there might be ten, twelve people living in a small  
12 house. So is there some kind of guidance, every -- some  
13 states have it every so many years or some percent of  
14 solid or sludge accumulates.

15 MR. STRONG: It's very tough to establish,  
16 because it depends if you have a garbage disposal or not,  
17 how you operate your system. You hear every three years,  
18 every five years.

19 CHAIRMAN BEDESSEM: And local counties,  
20 you know, publish educational information for people, as  
21 well. But it's not like it's an enforceable thing. No  
22 homeowner is going to have to comply with a four-year.  
23 Because a four-year might not be enough for somebody, but  
24 too much for somebody else. It depends on how -- you  
25 know, if you use your garbage disposal or you don't use

0152  
1 your garbage disposal. So it's a difficult one.

2 MS. CAHN: I don't have an easy answer.  
3 I'm just wondering. Because if I look down at (c) below,  
4 it says holding tanks and how often those should be  
5 pumped. Probably reaching their maximum capacity. Then  
6 it says it is preferable that these tanks be pumped  
7 before the wastewater volume exceeds 75 percent. So  
8 could we say on septic tanks, it is preferable that the  
9 tanks be pumped every so many years, three to five years,  
10 or as sludge solids have accumulated 25 percent?

11 MR. STRONG: I hate to say it, but you  
12 caught a mistake. We should not have "preferable" in  
13 there.

14 MS. CAHN: I was just going to say, this  
15 is an exception to that rule, so I don't want to make  
16 another one.

17 MR. STRONG: That may be more appropriate  
18 in a guidance document we'll talk about through the  
19 years. But that "preferable" should not be in there. So  
20 thank you for catching that.

21 MS. CAHN: So take it out. And please  
22 have your guidance document put in some kind of  
23 accumulation. And also, recognizing that it's difficult  
24 to judge if you're at 25 percent, what your percent is,  
25 it's easier to go by the years. It could say, however,

0153  
1 depending on the, you know, occupancy --

2 MR. REPPA: I believe EPA does have  
3 guidelines on that. We represent in other places in this  
4 document that this is what EPA says. So I think you  
5 could use the EPA or some other basis to substantiate  
6 your comment.

7 MR. STRONG: Thank you.

8 MS. CAHN: I'm on Appendix A. I'm having  
9 problems with math again. So, in preparing the hole in  
10 (b), Section 2(b), you dig a four-inch- to twelve-inch-  
11 diameter hole -- oh, diameter hole. Okay. But it

12 doesn't tell you -- okay. I guess I take that back.  
13 Scratch that.

14 I'm going down to (c)(A), under presoaking in  
15 the hole. And a lot of places here we have an eighteen-  
16 inch hole. There's lots of ways of doing perc tests.  
17 Can you give some kind of reference where you decided on  
18 this particular one? Because this one has -- I've seen  
19 one where you've got a six-inch test, and you go from six  
20 inches to five inches or -- and so it seems like you have  
21 a higher -- did you choose one with a higher head for a  
22 reason?

23 MR. STRONG: What we did is we revised it  
24 to simplify it for the homeowner to perform the test.  
25 It's very difficult to measure an inch drop and then

0154  
1 refill it an inch and measure an inch drop. We want to  
2 give them where they could incrementally watch it go down  
3 and then fill it up the twelve inches and then let it go  
4 down and refill it. We're trying to simplify it for the  
5 homeowner to make it more so he can have more accurate  
6 results and easier for him to understand. The perc test  
7 as established, it was very specific.

8 MS. CAHN: Six to five.

9 MR. STRONG: Yeah. You watch it go down,  
10 fill it back up. And that's great in a laboratory test.  
11 It's good in a field test. But we tried to simplify it  
12 for the homeowner to make it easier for them to perform  
13 the test.

14 MS. JOHNSON: And bad weather conditions  
15 where the wind is blowing and just give them a bigger  
16 volume to work with so that they weren't having to  
17 constantly --

18 MR. STRONG: And where you could do  
19 several readings. You get it too high and have to wait  
20 for it to go down. They waited too long. The homeowner  
21 could get frustrated in that he really may not read it as  
22 accurately and take as much time. And this was meant to  
23 try to improve the test for them.

24 MS. CAHN: I guess my question is now  
25 you're designing a test that has a higher head than the

0155  
1 standard perc test of six to five. So is that somehow  
2 accounted for? You're going to have a faster --

3 MR. STRONG: We did do the calculations on  
4 the increase in head, the impact. It was not  
5 significant. I cannot recall the numbers now in my head,  
6 but it was marginal to the effect it would have on the  
7 system.

8 MS. CAHN: On (d)(ii), where it says  
9 establish a fixed reference point to measure the  
10 incremental water level drop, I understand what that  
11 means, but I'm not sure somebody reading through this who  
12 hasn't done a perc test, a homeowner, is going to know.  
13 Can you give them some guidance where you want to see it?

14 MR. STRONG: Yeah. And currently and then  
15 when this is passed, we'll update -- we have a guidance  
16 document for that that's got diagrams and stuff so they  
17 can visualize how to do it.

18 MS. CAHN: That's it for Appendix A. And  
19 no comments on Appendix B.

20 CHAIRMAN BEDESSEM: I think we've gone  
21 through the whole rule.

22 MR. STRONG: No. We had to have missed



23 something. Thank you. We appreciate all of the  
24 comments. Is there anything else in regards to Chapter  
25 25? And am I correct in assuming that you want us to

0156

1 re-present this at the next meeting?

2 CHAIRMAN BEDESSEM: You're correct in  
3 assuming that. Do we need to have a motion?

4 MS. CAHN: Well, I have a question.

5 Considering the volume of phone calls, do we want to  
6 allow public comments, is kind of where I'm at again?

7 CHAIRMAN BEDESSEM: I guess my feeling at  
8 this point, the comments that we received were not new  
9 comments. They were the same comments as before. So, at  
10 this point, I don't see that there's a reason for  
11 additional public comment. As a result of discussions  
12 we've had today, if things are changed to a significant  
13 extent, then I think we need to have a discussion about  
14 whether we need to have additional comments at that time.

15 MS. CAHN: They want to make it a  
16 disincentive to say, well, if you don't make very many  
17 changes, you don't go back out for public comment.

18 CHAIRMAN BEDESSEM: Right.

19 MR. STRONG: No. We want to do the right  
20 thing. We might joke about that, but we would never do  
21 anything like that.

22 MS. JOHNSON: I think that we need to go  
23 back to the office and go through the transcript once  
24 it's prepared and get into the nitty-gritty of what each  
25 comment was that you have each presented and really weigh

0157

1 out, you know, what can we do? What do we need to  
2 change? Some of it might -- a good amount of it was just  
3 that it's worded confusingly. So that, we aren't really  
4 changing the intent. But if for some reason we went back  
5 and rechanged the intent of a section, then obviously we  
6 would want to put that out.

7 MR. STRONG: And that would be greywater,  
8 the discussion of greywater.

9 MS. JOHNSON: Exactly.

10 MS. CAHN: I think greywater, you're going  
11 to want to go back out for public comment.

12 MR. STRONG: Well, we'll get you guys that  
13 information. And greywater, we need to have a discussion  
14 on that. The other items we had changed had been do we  
15 go 20 or 24? Those aren't significant changes. Those  
16 are, I don't want to say minor, but --

17 MS. CAHN: Well, they're significant to  
18 the person who's doing the work. But yeah, I agree.

19 MR. STRONG: But we have received the  
20 comment from 20 to 24, so we know that comment is there.  
21 If we do a major revision to greywater, it would be  
22 justified to have another comment period. But the other  
23 ones we are tweaking, as opposed to changing the intent  
24 or the restrictiveness of the regulation.

25 CHAIRMAN BEDESSEM: Now, in order to save

0158

1 time, right now my expectation is that we would come back  
2 next time and go over what changes were made, and if  
3 there weren't significant changes, then decide at that  
4 point. We'll have a full understanding because we'll  
5 have a little more robust response to comments and a  
6 little fuller understanding of the intent in how  
7 everything was addressed. And if all goes well, we'll be

8 able to move that forward.

9 In order to save time, if, let's say in the  
10 next month, as you're going through greywater changes, it  
11 occurs to you that maybe the greywater system changes are  
12 significant enough for public comment --

13 MS. CAHN: Go ahead and go out?

14 CHAIRMAN BEDESSEM: -- go ahead and go  
15 out, as opposed to waiting until the next board meeting  
16 to say, "What do you think?" and then having to go out  
17 for comment then. So that's just our suggestion at this  
18 point.

19 MR. STRONG: We understand.

20 CHAIRMAN BEDESSEM: So then my question is  
21 do -- if this is primarily a discussion we're all in  
22 agreement just to reconvene and discuss this next time, I  
23 don't think we need a motion at this point.

24 MR. STRONG: No. A motion would be needed  
25 if you were going to approve it. And that is not the

0159 case.

1 CHAIRMAN BEDESSEM: Any other comments  
2 from the board?

3 (No response.)

4 MR. STRONG: I believe our last item is to  
5 do a short presentation on our streamlining and what you  
6 will be seeing next. And Gina is going to lead that off  
7 for us.

8 MS. JOHNSON: I don't recall if it was at  
9 the March advisory board meeting or if it was at the June  
10 one. I believe it was at the March advisory board  
11 meeting. Mr. Applegate had asked us to put together a  
12 plan of what each division planned on presenting to you  
13 over the next year. And then the next month the  
14 governor's office produced a memo that -- or, a letter  
15 that you all have received, I believe, you know, kind of  
16 giving us a poke in the side, like, look at your rules.  
17 So those two exercises kind of went hand in hand. So  
18 I'll just give you an update of what Water Quality  
19 Division plans to do over the next year.

20 So, just to summarize, we have that April 2013  
21 letter notifying you that he has asked all executive  
22 branches -- or, the executive branch agencies to look at  
23 our rules. He wants us to aim for a goal of one-third in  
24 reduction, one-third in total number. And he did state

0160  
1 in there that this is a goal. It's not an absolute. And  
2 we're directed to look for areas of consolidation. We're  
3 supposed to repeal obsolete or unnecessary rules. So, if  
4 a statute has been repealed and you still have a rule, a  
5 lot of agencies still have stuff like that on the books.  
6 So we're expected to pull those.

7 And we're also supposed to look for areas to  
8 make language more concise. So our director, Todd  
9 Parfitt, has requested that each division do some  
10 analysis and present -- or, submit to him reduction  
11 proposals. We've all done that. They were due on the  
12 1st of September. And Industrial Siting Administrator  
13 Luke Esch is putting together that analysis. And in  
14 addition to analyzing the proposals, he's gone to each  
15 division. We've had sit-down meetings to discuss in  
16 detail, what are you doing? What does that really mean?

17 We're expected to compile our proposal and send  
18 it over as one agency-wide report to Governor Mead. And

091913 water quality

19 as the April letter stated, he's going to make a  
20 presentation to the Joint Appropriations Interim  
21 Committee on the 1st of November.

22 So, for our particular division, we took a look  
23 at what do we have on the books right now? And we have  
24 23 active chapters. We have -- we also have one chapter  
25 that's under draft that doesn't technically exist yet,

0161

1 according to the Secretary of State. And we also have  
2 three chapters that are still placeholders, but they've  
3 been repealed, and those are Chapters 7, 10 and 18. We  
4 repealed them in '04. And their contents were  
5 incorporated into Chapter 2. We don't have the most  
6 pages for our agency, but we have the most chapters. So  
7 Solid and Hazardous Waste had the most pages, and we have  
8 the most chapters.

9 MS. CAHN: But Solid and Hazardous Waste  
10 has an easy fix.

11 MS. JOHNSON: Yeah. Their fix is much  
12 easier. Take a 1,700-page document and make it  
13 reasonable. That's way easier. We had a little bit more  
14 work to do. We didn't have a lot of easy fixes.

15 And just to give you some notes, if you're  
16 checking my math here, we referenced the official copies  
17 that the Secretary of State has. The Secretary of State  
18 has all the rules. So we used their page counts to total  
19 them. And these totals don't include tables of contents.  
20 They do include appendices, and chapter has appendices.

21 All right. So our overall plan is that we'd  
22 like to reduce our active chapters by a count of eight,  
23 and we'd like to eliminate an estimated 437 pages. And  
24 we have a three-part strategy to do that. We'll be  
25 combining some chapters to eliminate redundancies in

0162

1 things like definitions and objectives. We have --  
2 especially in the UIC program, they have multiple  
3 chapters, but each chapter just covers a specific well  
4 class. Well, the specifications for each well class vary  
5 to some extent, but largely, the definitions are the same  
6 over and over and over. So we'll be combining things  
7 like that to get rid of some redundancy.

8 We do have some areas where we can eliminate  
9 pages through targeted revision to make wording more and  
10 concepts more clear. And then we have -- our easy fix is  
11 we have three chapters that we don't really deal with  
12 that we'd really like to move to someone else.

13 CHAIRMAN BEDESSEM: Does that really help  
14 the overall goal of reduction?

15 MS. JOHNSON: Well, it does and it  
16 doesn't. So, if we look back to Governor Mead's -- I  
17 believe his intent was let's make them more usable. 17  
18 and 19, for instance, they're managed by the tank  
19 program, which is not in Water Quality.

20 CHAIRMAN BEDESSEM: Anymore.

21 MS. JOHNSON: So, if you're a tank person  
22 and if you're new, you're dealing with Solid and  
23 Hazardous Waste, but you have to look through Water  
24 Quality's stuff to get your regs. So we thought that --  
25 and we don't even manage these. When these come to you

0163

1 for revision and update, it's the Solid and Hazardous  
2 Waste Division that's managing them and updating them.

3 CHAIRMAN BEDESSEM: I recall that was

4 confusing the last time they came forward and said these  
5 are Water Quality rules.

6 MS. JOHNSON: Exactly. And so we feel  
7 that that's confusing. But they're that way due to the  
8 way the statute reads. So our goal is to request a  
9 statute change and to get those properly transferred.  
10 Chapter 4 is a spill rule. And that can also be  
11 confusing if -- if you're not aware that you have to  
12 specifically look within Water Quality's stuff to do  
13 the -- to address your spill, you don't know where to go.  
14 And what ends up is you call the main office in a panic,  
15 and you're not really sure where to look for what's  
16 expected of you, and then a person has to walk you  
17 through it, where hopefully, if we put this in a more  
18 centralized location and make it apply to all the  
19 divisions, it would be easier for folks to use. So  
20 that's our proposal right now.

21 Please note that none of these proposals are  
22 set in stone. The report hasn't been sent to Governor  
23 Mead. So, potentially, we could change some details here  
24 and there. But this is what we've proposed so far.

25 So most of the changes -- I'm going to discuss

0164

1 a little bit more in detail. We're looking at stuff for  
2 2014 into early 2015. Part of our plan goes further out.  
3 But we're just going to -- the further out you go,  
4 obviously, you're aware that our plans change, and it  
5 gets harder to forecast those. But we have a very good  
6 idea of what we'd like to do over the coming year.

7 Part of our proposal, since we're in progress  
8 with 15 and 25, we stated that we're currently working on  
9 repealing 15 because we don't -- we don't need the  
10 majority of it. And we were already planning to repeal  
11 that chapter, with the exception of the land application  
12 of septage. So the chapters that we discussed today are  
13 technically covered under the plan. So we will not be  
14 presenting to EQC in January of 2014. So we'll be  
15 revising our time line for that.

16 We have a UIC Class 6 carbon sequestration  
17 chapter that has been in draft phase over the last couple  
18 of years. And that was put on hold while we participated  
19 in our work group. We wanted to get some feedback before  
20 we finalized the draft to bring it to you. We have  
21 formatting to do, but the draft is largely finished. So  
22 we're anticipating to present it to you at the fourth  
23 quarter meeting if the schedules line up. We really need  
24 to meet on that chapter no earlier than December. And  
25 Solid and Hazardous Waste is trying to meet that landfill

0165

1 rule where they're doing the closure of the smaller  
2 landfills. They need it sooner. So, if we can line  
3 those two up, then we'll be okay.

4 CHAIRMAN BEDESSEM: I think they mentioned  
5 the first week in December.

6 MS. JOHNSON: Yeah. So, if it goes any  
7 later than that, it can be a challenge for them. Any  
8 earlier than that is a challenge for us. But we're  
9 willing to let them go ahead because we don't have a  
10 statutory time frame.

11 MS. CAHN: So you might be third quarter.

12 MS. JOHNSON: We might be. So just be  
13 prepared. If you don't see that in your package, it's  
14 because the timing didn't line up properly.

091913 water quality

15 Here's the UIC consolidation that I mentioned  
16 briefly. The plan is not to substantially change the  
17 regulatory requirements of those chapters. The  
18 regulatory requirements are not the problem. The problem  
19 is that we have the same set of definitions, and there  
20 are pages of them, the same authority and objective, and  
21 we're restating it over and over.

22 Additionally, some of the subsections are the  
23 same. Like the requirements for your well class will be  
24 the same. But each class has its own chapter. So, if we  
25 consolidate them into one, we would consolidate them into

0166

1 Chapter 9. We would repeal the other chapters, and we  
2 would eliminate all those duplications of sections and  
3 duplications of definitions.

4 We think that at this point that should be  
5 fairly straightforward work, and we would like to present  
6 it to you at the first quarter 2014 meeting, although  
7 that is subject to changing. If we find that there are  
8 some subtleties that we didn't catch during our analysis,  
9 that would push that out.

10 We also have some easy consolidations. Chapter  
11 2 is our WYPDES permitting, and Chapter 6 is a Colorado  
12 Basin standards rule. It's very short. It's only two  
13 pages. It's still an active rule, but we felt like it  
14 would be more appropriately served to be in the WYPDES  
15 rule.

16 We also have our water reuse chapter. We feel  
17 like if we put that back in Chapter 11 -- that's our  
18 wastewater chapter -- we felt like that would be a better  
19 place for that to go. It would eliminate some of the  
20 duplicate definitions. And Chapter 11 is already a  
21 wastewater chapter. 21 is reuse of that wastewater. And  
22 these -- these two consolidations would be the middle  
23 part of the year at the second quarter meeting at this  
24 point.

25 Our targeted revisions would start towards the

0167

1 end of the year. This is where the heavy lifting is.  
2 Chapter 12 is our public water rule. And we have not  
3 began drafting the revision yet. It's going to be a  
4 pretty substantial revision. We haven't really done much  
5 to it since '84. And we know that we're going to have a  
6 lot of revisions, and we're going to need a lot of  
7 stakeholder input to get it right. So the soonest we  
8 feel that that would be appropriate to present to you  
9 will be at the end of next year, so a year from now.

10 And that particular chapter we feel would be a  
11 good candidate for incorporation by reference, or as  
12 Administrator Edwards discussed earlier, rule by  
13 reference, where that rule was written based on the  
14 ten-state standards for waterworks back in 1984. And we  
15 have the ability to incorporate by reference those  
16 ten-state standards. They very concisely state what's  
17 expected of public water design. And we feel like we  
18 could save some pages and more efficiently state what's  
19 expected of those design standards if we did an  
20 incorporation by reference.

21 Just to give you an idea of why we think  
22 incorporation by reference is the way to go, it allows us  
23 to benefit from existing expensive technical, industrial  
24 and business expertise that's available in the private  
25 sector. So we don't have to reinvent the wheel. They've

0168

1 already invented a great, great wheel. We align our  
2 regulatory requirements with industry best practices, and  
3 it reduces noncompliance. It makes it easier and less  
4 expensive to enforce our regulations.

5 So these ten states and states and counties all  
6 over the nation already use these standards. They've  
7 already vetted them and worked out the bugs. It makes it  
8 easier for us to regulate standards that are bug-free.  
9 And we feel that that's a good way to go. And basically,  
10 that came from the administrative conference of the  
11 United States. They explained why they thought IBR was  
12 the way for states to go. And it makes a lot of sense  
13 for us, especially under this current expectation.

14 So that's where we're expecting to go in 2014.  
15 Do you have any questions? Again, our final report  
16 hasn't been sent to the governor's office yet. So, if  
17 for some reason we're asked to revise our time line or  
18 there's a detail that has changed, we would brief you at  
19 your next advisory board meeting so you kind of know what  
20 to expect.

21 But as far as Water Quality Division is  
22 concerned, we'll probably keep you busy on a quarterly  
23 basis at least over the next year. So that's what we're  
24 looking at.

25 CHAIRMAN BEDESSEM: Sounds like it's going

0169

1 to be the same as Solid and Hazardous Waste.

2 MS. JOHNSON: Exactly.

3 MS. CAHN: Cal is wondering what is he  
4 doing on this board?

5 CHAIRMAN BEDESSEM: Well, I appreciate  
6 very much that update. I would assume, then, that you  
7 will be sending me a Doodle poll?

8 MS. JOHNSON: Yes.

9 CHAIRMAN BEDESSEM: And we discussed  
10 perhaps that meeting being in Cheyenne.

11 MS. JOHNSON: Okay.

12 MS. CAHN: And I'm willing to go to  
13 Laramie. Since we have two board members in Laramie, we  
14 could do Laramie or Cheyenne.

15 MS. JOHNSON: Either one.

16 MS. CAHN: I know Laramie is a little less  
17 driving for me. It's not that far for you guys.

18 MR. STRONG: That's a long 45-minute  
19 drive.

20 MS. CAHN: Well, I feel really sorry for  
21 you.

22 CHAIRMAN BEDESSEM: It depends on what  
23 venue.

24 MS. JOHNSON: It depends on what venue.  
25 And we're getting close to the end of the semester. And

0170

1 I'm not sure if larger meeting spaces get filled up at  
2 that point. I'll have to work on that, and I'll  
3 definitely forward that information on to Administrator  
4 Fredricks.

5 CHAIRMAN BEDESSEM: Might do it in  
6 Cheyenne, because it might be easier to do a summer  
7 meeting in Laramie at some point because of the  
8 availability of rooms. But in any event --

9 MS. CAHN: That's fine. Really, by the  
10 time I'm driving all the way across the state, what's

11 another 45 minutes?

12 CHAIRMAN BEDESSEM: And then we'll go back  
13 to kind of our Casper meetings.

14 MS. JOHNSON: For like the March one?

15 MS. CAHN: Or we can switch them and do  
16 Casper in December, and March could be in Laramie. So  
17 whatever works. And I'm willing to go across the state,  
18 since you guys just did it.

19 CHAIRMAN BEDESSEM: We haven't done it for  
20 quite some time, so that's fine.

21 Well, thank you for all the work that you put  
22 into this today. There was a lot to digest. And we  
23 appreciate your patience going over all our questions and  
24 comments and concerns.

25 MR. STRONG: And we absolutely appreciate  
0171

1 your comments and concerns. That makes the regulation  
2 better, and that's our goal.

3 MS. CAHN: And thank you for driving  
4 across the state.

5 MR. STRONG: The driving across the  
6 state -- it's driving back that's the hard part.

7 CHAIRMAN BEDESSEM: The Water and Waste  
8 Advisory Board third quarter meeting is adjourned.

9 (Hearing proceedings concluded  
10 4:15 p.m., September 19, 2013.)  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

0172

C E R T I F I C A T E

1  
2  
3 I, RANDY A. HATLESTAD, a Registered Merit  
4 Reporter, do hereby certify that I reported by machine  
5 shorthand the proceedings contained herein constituting a  
6 full, true and correct transcript.  
7

8 Dated this 14th day of October, 2013.  
9  
10  
11  
12  
13  
14

\_\_\_\_\_  
RANDY A. HATLESTAD  
Registered Merit Reporter

15  
16  
17  
18  
19  
20

091913 water quality

21  
22  
23  
24  
25