BEFORE THE WATER AND WASTE ADVISORY BOARD
STATE OF WYOMING

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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

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TRANSCRIPT OF HEARING PROCEEDINGS

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.

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. CRIPE: 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.

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

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

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

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

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

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

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

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

MR. STRONG: Yes.

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

CHAIRMAN BEDESSEM: It's put in a guideline now.

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

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

MR. APPLEGATE: And I have one more

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

CHAIRMAN BEDESSEM: You don't have your own?

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

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

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

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

MR. APPLEGATE: Is it referring to this Chapter 25 in that definition?

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

MR. APPLEGATE: So I kind of felt like I would come at this chapter like your typical landowner, totally oblivious. So I'm trying to understand when you need a permit and when you don't by each of these sections. Now, feel free to -- I don't want to take time to --

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

CHAIRMAN BEDESSEM: Privies are a general permit.

MR. STRONG: Yes.

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

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

MR. CRIPE: I'm having a hard time hearing you. Could you restate that maybe into the microphone?

(Pause in proceedings.)

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

MR. STRONG: Did you get that, Rich?

MR. CRIPE: I don't believe we have one in

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

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

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

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

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

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

MR. APPLEGATE: So every septic system requires a permit, it sounds like.

MR. STRONG: Correct.

MR. APPLEGATE: And every drain-water system?

MR. STRONG: Correct.

MS. CAHN: And every privy.

MR. STRONG: Correct.

CHAIRMAN BEDESSEM: The privy is a general permit.

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

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

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underneath that general permit criteria that can be issued.

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

Rich, could you help me out on this?

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

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

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

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

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

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

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

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

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local delegated office would review that application on our behalf.

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

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

MR. STRONG: To actually install?

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

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

they're done quicker than that.
CHAIRMAN BEDESSEM: If a county is
delegated so that they're doing reviews on a septic system, would that automatically put them in a position to be doing reviews on privies?
MR. STRONG: Yes.
CHAIRMAN BEDESSEM: So, while you have a 60-day, maybe the county does, as well. I know at least in our county, they happen a lot faster than that.
MR. STRONG: When the delegation agreement is created, there's certain stipulations that have to be met. I do not know the specifics of every delegated agreement to be able to specify what the time frame is in all of them. But it's usually quicker than 60 days.
CHAIRMAN BEDESSEM: Yeah. It's way quicker than that.
MR. HANSON: One question. You mentioned the other process doesn't require anything but to go ahead with read your documentation. How does the homeowner know which process he has to follow?
MR. STRONG: We'll have it specified in here. And that's the confusion. We'll get it clarified. But in here it will specifically say this is a permit-by-rule component and that no permit application is required.
MS. CAHN: But it won't say that in here because you don't have a permit by rule.

MR. STRONG: If there was a permit by rule allotted in this section. We have a discrepancy that has been identified.
MR. APPLEGATE: So are we changing -- I have opened this can of worms. Is this Chapter 25 in its previous version, was it also general permits? Has there been any change to that?
MR. STRONG: No. We've always required permits for privies, on-site wastewater systems, holding tanks, lagoons, treatment facilities. They've always been required.
CHAIRMAN BEDESSEM: But they were general permits.
MR. STRONG: And they still are general permits unless they fall outside the methods established in Chapter 25.
MS. CAHN: And so the change that's been made to privies now doesn't require an engineer to go out and design your privy?
MR. STRONG: Yeah. I'm going to discuss that as we go through here. But we can change that. We're going to create a design package so that if a homeowner wants to put in a privy, they can follow the application process, submit and not require to hire a professional engineer to come out and do a design on

their specific site to reduce the burden to them.
MR. APPLEGATE: You can go through the detailed comments, but sometimes it helps for us to frame up some things. So, on greywater systems, were they previously in Chapter 5?
MR. STRONG: Greywater systems were not previously covered in Chapter 25. That is a new development.

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

What was stated there is not correct. What occurred previously with greywater systems was they were required to be permitted previous. At some point -- I don't recollect what year that was. It was either in 2009 or '10 -- a policy was drafted to do those by a permit by rule, which received very unfavorable response by many of the delegated counties because of the framework and everything that was there.

What is being proposed in this regulation is that it will require a permit by rule -- or, sorry -- a general permit. And it lays out the stuff, which is very consistent with all of the delegated counties. Of the ones that had concerns on it were Laramie County, Natrona County.

And so, in the one that we have, yes, we will require it to be permitted, just as we have prior. The only thing that was different, if someone decided to go a route with the greywater where it might go a route of doing permit by rule. And it turned out to create many problems for the delegated counties. And we heard that in many of the responses. And they were very favorable in going along with this greywater approach that we are proposing in this regulation.

MR. STRONG: Yeah. That's correct. The old -- I'm going to say old. The current version of Chapter 25 did not distinguish between greywater and wastewater. It was all wastewater. So greywater had to go to the septic tank and leach field or lagoon. It did not necessarily allow it to go for irrigation or other purposes.

MR. APPLEGATE: Can I have one more, I think, conceptual -- when I went through the comments, there was a lot of comments by a vendor concerned about technology -- new technologies. So we've laid out -- I'm going to this 25-5. By the way, I didn't see any changes to that section, so I don't think it would require too much by review.

What I'm trying to understand is, in the general sense, septic systems have been designed probably in a particular way for quite a long time. And it appears like, from the comments, that there are some new techniques out there. And there was a concern by the one vendor stakeholder that his system required a PE license because it had these differences. And the comment that

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

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

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

MS. JOHNSON: RockVale.

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

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

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of our review time.

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

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

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

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comment on that.

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

CHAIRMAN BEDESSEM: They're not here today

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

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

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

Rich, do you have a comment?

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

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and everything in there requires a PE.

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

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

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

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

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

MR. CRIPE: Yes.

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

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

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

MR. APPLEGATE: I think that answers my comment. Inherent to this is a time frame that keeps people working together, and two, the multitude of comments that particular person had, they are trying to work through that with you in terms of this Section 5 process. Is that fair?

MR. STRONG: That is absolutely correct.

MR. APPLEGATE: Thank you.

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

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

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

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

The next revision is line 380 on page 14. Here, this is a simple word change. We are changing -- replacing "isolation" with "setbacks" so we use common terminology throughout the chapter. Line 445 on page 16, here we're replacing "should" with "shall" to clarify that the minimum slope for sewer pipes shall be met.

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

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

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

MR. STRONG: Yes. What we're saying is the minimum volume is 750 gallons unless these calculations show it needs to be larger.
MS. CAHN: But it doesn't say that. "Unless the following calculations show it needs to be larger."
MR. STRONG: Okay. Any other questions from the chairman or board?
(No response.)
MR. STRONG: Next is line 710 on page 22. This section was revised to clarify the septic tank seepage must be hauled off or pumped into the new septic tank. As written, we got confusion.
Next is Section 13, line 924, which is on page 27.
MS. CAHN: I'm still reading -- I'm back on 709, reading your language.
MR. STRONG: Oh, that's okay.
MS. CAHN: Okay. Sorry. Go ahead.
MR. STRONG: Line 924, we replaced the word "level" with "bottom" to clarify where the measurement is to be taken from. Next is Section 15, line 1084, which is on page 31. Here we are revising the reference location. It referred to Section (a)(i). It needs to refer to Section 6, paragraph (g), which talks

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about the horizontal setbacks for septic tanks. On that same page, line 1100, eleven hundred --
MS. CAHN: Can you hold on just a second?
MR. STRONG: Absolutely.
MS. CAHN: Okay.
MR. STRONG: Line 1100, at the last meeting, we discussed taking a second look at the requirements for privies, whether it's permit to construct or permit by rule. And we recommend that it stays a permit to construct. Some of the justification is currently we regulate all forms of wastewater, including sewer lines, treatment plants, lagoons, on-site wastewater systems, holding tanks, which are very similar to privies. We have reviewed past privy applications that we have received to see what kind of compliance we have with the initial submittal, and the majority of them required additional revision before they could be approved for construction.
With that, we don't expect that going to permit by rule, we would see any more success on the initial application meeting all the requirements.
MR. APPLEGATE: Going to permit by --
MS. CAHN: Now we have permit to construct, which is a new term.
MR. STRONG: A general permit. I

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apologize. A general permit. The majority of the surrounding states require either permits or oversight by licensed installers for the installation of privies. To reduce the burden to the homeowners, we have added in at line 1100 a design package that was prepared by DEQ that would meet the requirement of a professional engineer, eliminating their need to actually solicit and hire one.
MS. CAHN: Dave, Mr. Applegate, asked if I was going to go through my comments or any of us go through our comments as we go. And I think typically what we do is DEQ makes their presentation, and then

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

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

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

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

MR. HANSON: Before you go on, on that

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

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

MR. HANSON: I see that now.

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

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

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

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

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

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

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

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

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

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

on that revision component in Word, we would -- we had changed some things, and then we changed our minds. And it was getting very layered and very confused. So what we did was we took the clean version that we showed you last time and the clean version that we are presenting and compared that. And it miscalled a couple of items. And that's why that's confusing. And I apologize for that.
CHAIRMAN BEDESSEM: But miscalled is not reflected in the clean of the final rule.
MS. JOHNSON: The clean copy we reviewed, and that is properly stated.
MR. STRONG: With that, those are the content changes we made. Everything else was grammatical or formatting or capitalization, which seemed to be a nightmare for us. With that, I would ask for any questions or comments that we need to discuss.
CHAIRMAN BEDESSEM: I think there is quite a few comments with respect to this rule. And so I originally said that we would take a break at noon. But if this is the end of your presentation, rather than stopping in the middle of comments, maybe we break now and then have comments after lunch, if that's agreeable to everyone.
MR. STRONG: It is your board, ma'am.

MS. CAHN: I will say that I received more comments on this from people calling me. I had more phone calls than I've ever had in my dozen years on the board. So I'll have a number of comments. I don't know how long it will take. But I do have to say I received more phone calls than I ever have on any other thing in all these years.
MR. HANSON: You're referring to this section?
MS. CAHN: I'm referring to this entire package. So it may take some time.
MR. APPLEGATE: I have comments and concerns, really, just on the greywater section.
CHAIRMAN BEDESSEM: Do you want to do your greywater section first?
MR. APPLEGATE: It doesn't matter. I just wanted to frame up what we have to try to answer your question. Lorie will take an hour, it sounds like. I will take ten minutes.
MR. JONES: I have no comments.
CHAIRMAN BEDESSEM: I would be in between the two. So I would plan on at least a couple hours.
MS. CAHN: So maybe 3:00-ish, 4:00-ish. I don't know how long we have this room for.
MS. JOHNSON: I believe we have it until

3:00.
(Hearing proceedings recessed 11:48 a.m. to 12:42 p.m.)
CHAIRMAN BEDESSEM: Let's reconvene the Water and Waste Advisory Board meeting.
MS. CAHN: Do we want to take it section by section, or do we want to just do one person at a

time?
MR. APPLEGATE: I think section by section would be quicker, don't you think?
CHAIRMAN BEDESSEM: If you don't mind, I'm going to start first off with making a couple of remarks about the draft SOPR and just some corrections I would request. A lot of times we don't read the draft SOPR until --
MS. CAHN: Can you move your microphone?
CHAIRMAN BEDESSEM: I was looking at the draft SOPR. And in particular, I see the motivation for the change in the rules and so forth and noticed some language that we might be able to change. So, on page 2, Item Number 14, it says the language in Section 13, privies, was moved to Section 15, renamed sand mound systems and replaced with language. When I read that, it sounds to me like the language is meaning sand mound, and I don't think that's what --

MS. CAHN: Excuse me. Are you on the clean version now?
MS. JOHNSON: She's on the SOPR.
CHAIRMAN BEDESSEM: I'm on the SOPR, statement of principal reasons.
MS. CAHN: You'll have to speak into the microphone. I didn't hear you.
CHAIRMAN BEDESSEM: I'm referring to the draft statement of principal reasons.
MR. HANSON: On Chapter 25.
CHAIRMAN BEDESSEM: Yes. It's under the tab draft SOPR. It's just a page, statement of principal reasons, but I found the language confusing.
MS. JOHNSON: Now that I'm rereading that --
MS. CAHN: Which section are we referring to?
CHAIRMAN BEDESSEM: Item Number 14, where it says the language in Section 13, privies, was moved to Section 15. I think you ought to put a period there and then start over. In Item Number 15, it's a similar kind of thing. It says, applications for permanent toilets will now be considered under a proposed revision of Section 5. That's supposed to be 15, I believe. Because isn't 5 the section we talked about, the technical

process?
MS. JOHNSON: I believe that we removed the language concerning chemical toilets. We used to have a section on chemical toilets, and it outlined what the requirements were, but we killed the section altogether because we don't -- people don't use them. But if at some point someone did want to apply to install a chemical toilet, they would do it under Section 5. Is that correct, Frank?
CHAIRMAN BEDESSEM: There's no changes in Section 5.
MR. STRONG: What this is trying to state is, in the current version of 25, there's requirements for a chemical toilet that someone could apply to construct. We're removing those requirements because they haven't been utilized. If in the future someone does come in and apply to construct a chemical toilet, it would fall under Section 5 now as an alternative design.

CHAIRMAN BEDESSEM: Is there a proposed revision of Section 5?
MR. STRONG: No. Section 5 is the section where it talks about applying for a permit to construct alternative systems not covered in this.
CHAIRMAN BEDESSEM: But this says proposed revision to Section 5. There is no proposed revision to Section 5.
MR. STRONG: Oh, we understand what you're getting at now.
CHAIRMAN BEDESSEM: So I just misread it and thought it was 15 because things were moved around. But it is Section 5. But there is no proposed revision. Is that correct?
MS. JOHNSON: Right. I believe that my phrase order is a little --
MR. STRONG: We'll get that corrected. We understand what you're getting at.
CHAIRMAN BEDESSEM: Again, the sentence after where Section 5 ends, it says language was replaced. And I'm thinking which language? The language from Section 14 was replaced with specifications from -- if you would clarify, because I could not follow. Because here it says, application for permanent toilets will not be considered unless the chemical toilets are removed and the language is replaced with the specification. So, if you just say was inserted in Section 14 instead.
So Item Number 17, where it says Section 16, commercial, industrial waste was removed, as this type of waste is regulated by the Water Quality Division UIC section, it's only regulated by that section if it's being injected into the underground. So it's not the waste, to my knowledge, that's commercial, industrial that's regulated under Section 16. But that UIC disposal, this type of disposal is regulated under Section 16. So removes this type of waste disposal. Because there's lots of commercial or industrial liquid wastes that are addressed under wastewater rules.
Item Number 19, I think the word "to" probably doesn't need to be in there.
Those are the only comments I had on the draft SOPR. But as far as what this means, as far as your draft SOPR, is that you're revising these rules for the most part in response to the request to the governor's mandates, update and provide the rules, so you're just updating and simplifying in response to that mandate?
MR. STRONG: Actually, in retrospect to what you're saying, that kind of came afterwards. But keep in mind, some of this jumped in towards the latter half of this. This was prompted by the inadequacies that were in Chapter 25 that needed to be addressed. This had been in motion. The streamline kind of got joined into that.
CHAIRMAN BEDESSEM: Because this has been a long process.
MR. STRONG: Correct.
CHAIRMAN BEDESSEM: But what I'm reading is there isn't a statutory deadline.
MR. STRONG: No.

CHAIRMAN BEDESSEM: So that was my take-away from reading the SOPR.

So now are we going to go through the strike-and-underline versions? Is that our preference?

MS. CAHN: My comments are in the other version. I can go back and forth.

MR. STRONG: The clean copy?

MS. CAHN: The clean copy.

CHAIRMAN BEDESSEM: Might have to flip back and forth. I don't want to make comments on things that they're not updating.

MR. APPLEGATE: Just go section by section.

CHAIRMAN BEDESSEM: Do you have anything in Section 1 or 2?

MS. CAHN: (Shakes head.)

CHAIRMAN BEDESSEM: So, looking at Section 3, we talked about the comment with respect to permit by rule and that you're going to do a word search and check and see if that's necessary --

MS. CAHN: Can you put the microphone by you?

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CHAIRMAN BEDESSEM: -- and whether you need to have what general permit means in here. And I don't know if that's defined elsewhere in the water quality rules. And you can leave it in here if it is.

I am concerned about (z), the pathogens definition, and was wondering where that definition actually came from. Because when I read it, I find it confusing, because it says that pathogens include, but are not limited to, coliform bacteria. And to me, when I read that, that implies that all coliform bacteria are pathogens, which is not the case. Lots of coliform bacteria in soil, and the vast majority of them are nonpathogenic. So I find this definition very confusing and was wondering where it came from and whether it can be refined.

MR. STRONG: The definition came from EPA. We looked in the EPA documents.

CHAIRMAN BEDESSEM: The first sentence?

MR. STRONG: The first sentence. And then the second sentence was our attempt to help identify different pathogens of concern for the -- where this was being reviewed by homeowners. If you say pathogen, they may not know what it is. We're trying to give examples of that. So maybe when you take a second look at that coliform bacteria, it will be more specific on what we're

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trying to identify.

CHAIRMAN BEDESSEM: Yeah. And same thing. You know, E. coli is a subset of fecal coliform, which is a subset of coliform. And they're not all necessarily pathogenic. So that second sentence, I understand the intent in that you were trying to help the homeowner, but you have to firm up the language so that it is not misleading. Because right now it kind of conflicts with general microbiology.

MS. CAHN: And that gets at one of my comments. I did a word search for pathogens to see where you've used it. And the only place you used it is where I have a comment. And so I'm thinking what got introduced is the use of the term "pathogens" in one spot

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

MR. STRONG: Section 16?

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

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

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

MS. CAHN: I have a fairly new one.

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

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

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

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

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

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

Are there any other comments on Section 3?

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

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

CHAIRMAN BEDESSEM: I just recall that

there were a number of comments where people wanted that a little bit wider to --

MR. STRONG: There was a comment in regards to constructibility, that sometimes you have to excavate wider than that. And that's fine. But we only count the three-foot wide for the effective trench width for the calculations.

CHAIRMAN BEDESSEM: But they can build the trench better?

MR. STRONG: Yes.

MR. HANSON: Could you add the word "at least" under (kk)?

MS. CAHN: Or "less."

CHAIRMAN BEDESSEM: Yeah, or less. So I'm fine with that explanation.

MR. HANSON: But you could trench it wider. Right?

MS. CAHN: No.

MR. HANSON: No, you can't.

MR. STRONG: What that's referring to, in here we have a definition of a trench system, versus a bed system. If the actual infiltration area is wider than three foot, it is considered a bed, and you don't get the sidewall credit and those kind of things. It's not referring to the actual trench used for construction.

It's referring to the trench style treatment system.

CHAIRMAN BEDESSEM: And what's used in the calculations --

MR. STRONG: Correct.

CHAIRMAN BEDESSEM: -- that they can feel comfortable digging a 40-inch-wide trench to be able to install it.

So I didn't have any other comments with respect to Section 3. Section 4 on design flows.

MS. CAHN: I just have a consistency thing when you talk about Table 1 and its design flow rates and Table 2 and design flow rates. In other parts of this regulation, you use the term "peak flow." And I think you're referring to these design flow rates. So I think I would choose one or the other. Is it a peak flow or design rate? And make sure you're consistent. So I would do a search. I don't care which term you use.

MR. STRONG: They are one and the same, but we will get consistent terminology.

MS. CAHN: I'm ready to move on to Section -- I don't have anything in 5.

CHAIRMAN BEDESSEM: So I think we're okay on Section 5. And there weren't significant changes in Section 5. Any comments? This is the section that you told me earlier was how permanent toilets would be covered, since the specific chemical toilet rules are not there?

MS. JOHNSON: Yes.

CHAIRMAN BEDESSEM: Section 6, site suitability.

MS. CAHN: On line 227, so Section 6(a), we have small wastewater system shall not be located beneath, and we have irrigated landscaping. And I just kind of question why -- I would suggest it could be irrigated landscaping.

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

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

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

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

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

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

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

MR. STRONG: Okay.

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

MR. STRONG: Oh, I misunderstood the comments.

MS. CAHN: Well, no. I was also questioning why -- but I can accept your explanation. In Table 3, where the limits for absorption systems goes between five and 60, I have to say I'm fairly confused. Because some places in the regulations you're allowed one to five minutes per inch, and some places you're allowed greater than 60 minutes per inch. And so I'm not -- it's not clear to me -- again, I

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

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

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

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

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

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

MS. CAHN: So let's go one to five.
MR. HANSON: Rather than faster than five.
MS. CAHN: Yeah. Because that would mean a half a minute per inch.
MR. HANSON: The way it reads now, it's only from five to six, because six is already defined in the next.
MS. CAHN: No. Faster means a lower number. It's confusing.
MR. APPLEGATE: It means it takes less time for it to --
MS. CAHN: It's not a higher number.
MR. HANSON: It's a lower number.
MS. CAHN: It's a lower number but a faster speed. Because it's the percolation -- how many minutes it takes to perc.
MR. STRONG: We will correct that.
MS. CAHN: So, if you're slower than 60 minutes per inch, there's no slope, maximum slope allowed? I mean, there is.
MR. STRONG: When it gets to be over 60, it requires a professional engineer to design, at which point he can determine maximum allowable slope based off his design parameters.
MR. APPLEGATE: This is the part of the

document where it says if you exceed that 60, it no longer fits these standard designs.
MS. JOHNSON: It's in Section 2, objective. It's the second paragraph. It states, a Wyoming registered professional engineer will be required for nondomestic wastewater -- and then I'll skip to the end -- or standard soil absorption systems with a soil percolation rate of over 60 minutes per inch.
MR. APPLEGATE: So, if it's over 60, you want to grade that slope.
MS. CAHN: Next one is line 276. It's (f)(iii), so Section 6(f)(iii).
MR. STRONG: It would be line 263 on the strike-and-underline version.
MS. CAHN: So then we said you can use soil texture as an additional tool to confirm the percolation rate. And it seems to me that it really should be not in addition, but it should be "or." You could use the --
MR. STRONG: We're not ready for the "or" yet simply because the soil texturing is a newer technology, a newer practice. And there have not been good correlations established between percolation and soil texturing. And the other issue we have is soil texturing requires a certified individual to do it, and

there's not that many individuals in the state. So that is something we want to develop in a policy and develop and improve on, so when we get the knowledge, that we can put the "or" in and have the proper requirements in place.
MS. CAHN: So give me an example why

somebody, then, if they have to do a percolation test, why would they then also use this additional tool? I mean, some people believe it's a better, more accurate test. But if you're going to require them to do a perc test, which is cheap and simple and easy to do, why would somebody spend the money and time to get somebody to give them additional information that could be very useful?

MR. APPLEGATE: It's sort of a meaningless phrase.

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

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

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

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

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

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

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

MS. CAHN: I would keep it in here because, from what I'm reading and what I'm hearing from people is that some states have gone to that. And it could be there is some information out there that it could be a more accurate test. And so I would encourage its use. So I would like to see it in here.

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

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

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

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

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

soil texture evaluation to change how you interpret the perc test? In other words, is there any -- I'm trying to figure out if there's any benefit, like if they're requesting a variance for something or they want to design it a little differently because of some information that they got based on the soil texture that's not reflected in the perc test.
MR. STRONG: I'm sure we will get that

request at some point. Right now it's meant as a tool to verify that the perc test results came in properly and that the system is being properly sized and may be to indicate that the perc test needs to be redone, is my initial -- I mean, is my initial thoughts. But as we see correlation, it could be used for that.
CHAIRMAN BEDESSEM: Okay. You're probably not going to get very many of them.
MR. STRONG: We never know.
MS. CAHN: On Table 4, I'll just note while we're here that the minimum setback, horizontal setback, to property lines for a septic tank is 10, but for greywater is 30. When we get -- I'm just pointing it out at this point. And to me, it -- when we get to greywater, I'll say why are we being more stringent with greywater than we are with the septic system?
MR. STRONG: And there, greywater does allow some surface application, where the water gets applied directly to the surface, where a septic tank and absorption system are all subsurface. And in the greywater section, we do have it noted, if you do use subsurface irrigation, you can -- that meets that 30-foot setback. So you could get closer. But we can discuss it when we get there.
MS. CAHN: Yeah. We can discuss it when

we get there. I just wanted to point out that it's 10. Because I didn't get out of the greywater system that it was only for surface irrigation that's a 30-foot setback.
MR. STRONG: We'll discuss that when we get there.
MS. CAHN: And then I found pathogens. It's on line 303. And I believe it's the only place we use it. And it's a footnote to the table for the 200 foot to the absorption system for a public water -- for discharge that affects a public water supply well.
MR. STRONG: That is starting on line, I believe it's 384 on the strike-and-underline. Actually, pathogen is listed on 390.
MS. CAHN: We're all looking at a different version.
MR. STRONG: And that pathogen was included in this area, in this footnote, for protection of public water wells.
MS. CAHN: Can you tell me what it would cost to do a test for pathogens, how much it would cost somebody to do that test?
MR. STRONG: I do not know off the top of my head. I do not have a price list with me from a lab.
MS. CAHN: Give me a ballpark.
CHAIRMAN BEDESSEM: A lot of times that

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

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

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

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

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

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therefore, the definition of pathogens --

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

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

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

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

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

MR. STRONG: 30 percent -- multiplying by

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4-point -- with 1.43 is the 30 percent reduction.

MS. CAHN: Not in my book.

MR. STRONG: When you talk about 30 percent reduction, the calculation says you need 100 square feet. So a 30 percent reduction is 70.

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

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

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

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

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

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

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

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

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

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

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

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

If we go the other way and say --

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

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

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

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

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

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

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

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

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

for 30 percent more of the volume or something? Because
the question is -- you know, we see things when we look at other states, and they got 25 percent, 30 percent, and I'm looking at this, going, oh, we got 43 percent.
MR. STRONG: Yes. And some of those other states, they don't count the side area. And that's why they offer a larger percentage on the reduction or smaller percentage, depending on how they do it. So we can clarify that that 1.43 is based off a 30 percent reduction of the bottom area only.
MS. CAHN: Moving on to little (iii)(c) just below it, two paragraphs below it, we have -- now we have coarse sand or soils having a percolation rate less than one minute per inch. Now, I was thinking this should be five.
MR. STRONG: No. It should be one.
MR. APPLEGATE: One to five is still applicable with that 25. Less than one is too quick. Right?
MR. STRONG: Yeah, too quick. And either they need to hire an engineer, or they need to bring in fill material to create a one-foot treatment.
MR. APPLEGATE: Slow-down barrier.
MR. STRONG: Yeah. Yeah. A tighter soil that doesn't perc as fast. Because that initial treatment happens in that first foot. We need to have
that.
MS. CAHN: And then move on to Table 5. We had a fair amount of discussion at the last board meeting and in comments before about that -- I mean, I've done perc tests. And in your appendix here, it's not even a double-ring infiltrometer or any kind of fancy thing. It's the basic crude method. And we had comments before about having hundredths of a foot in your gallons per day per square foot for your loading rate. Did that seem too -- it makes it seem -- this is a really crude empirical test. And this makes it seem like that test is really pretty accurate. You go to a hundredth of a gallon per day per square foot. And we talked last time about taking the percolation rate and saying the one to five is .8, and the ten to six -- six to ten is .6 to .8, and the 11 to whatever, 20, is 25.6.
MR. STRONG: Yeah. We've heard that discussion. And what we did here is we simply converted the chart that you were able to read to this accuracy, the graph, and converted it to a table. So we were providing that accuracy before, and we didn't see a need to change that now.
MS. CAHN: Well, I guess it just bothers me knowing how crude the perc test is. And you look at other states, and other states will have to a tenth of a
foot, not a hundredth of a foot. And they don't have every single minute. They'll have the brute units together, but -- because this just -- to me, it looks like there's a lot of faith in the accuracy of that test. And there's not. I guess my question would be what does it hurt you to kind of group them and simplify this table and have five -- to do a tenth of a foot or --
MR. STRONG: If we do group them, we're going to end up with larger systems. Because we're going

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

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

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

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

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

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

MS. CAHN: Can you pull the microphone over?

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

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

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

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

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

CHAIRMAN BEDESSEM: So where is saturated thickness?

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

MS. CAHN: Saturated thickness is (gg).

MR. STRONG: Oh, I'm sorry.

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

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

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

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for coming up with a saturated thickness, I didn't necessarily agree to the response where it was kind of implied that a homeowner that has a water well automatically knows from the well log what the saturated thickness is. That isn't necessarily a given. And so that's some of the responses on page -- that were modified in the response to comments on page 21 to page 23.
MS. CAHN: Which response to comments? Response to stakeholders?
CHAIRMAN BEDESSEM: The revised responses to stakeholders with respect to why the homeowner would need a value for saturated thickness.
MS. CAHN: Page 21?
CHAIRMAN BEDESSEM: Page 21 in the comments. It says, when the water well's drilled, there was a well log developed. Information to determine the saturated thickness can be derived from the well log without any extra expense. That may or may not be the case. That's assuming that that well was drilled down to the impermeable layer to get the saturated thickness. The wells are not drilled that way. So I have trouble with the response. And so I'm curious as to how this is all going to be rolled into the guideline.
And it's kind of similar to the solid waste

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program in that, when they came forward with the rule where they took a bunch of material out of the rule and said we're going to put it in a guideline now, they were to bring that guideline to us and say, okay, so this is what we did with it. And so I'm seeing those types -- for changes that you accommodated by moving those figures, saying now it's going to be in a guideline, but yet I don't really know how that's going to be in that guideline, and is it reflecting people's comments in response to this rule?
So my question is, is that -- what is your expectation with respect to the guidelines that you're going to develop in concert with this rule as to how those are going to be developed, if they're on the same time line as the rule, if there's going to be any discussion here amongst that about that?
MR. STRONG: Our intent is to develop them with the chapter. And we've started piecing the stuff together. I hate to say it. I haven't put any thought in front of the board yet. It just didn't cross my mind. But our intent is to create instructions both on how to use the well data to determine saturated thickness and what to do if it doesn't go all the way down and give them examples and procedures on how to do that and absolutely utilize the comments we have to hone that into

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

from your well log, I think you need to carry out that a little more, because I don't think that's as straightforward as is implied on pages 21 and 23.
MR. STRONG: Okay.
MS. CAHN: And perhaps -- I'm just thinking out loud. It might not work. But if a homeowner's well goes down 90 feet or some distance they haven't gotten to, then could they use the maximum depth of the well if they haven't gotten to it yet and say that's at least --
MR. STRONG: Yeah. What is the depth of the well to the static water level with saturated thickness? And absolutely, that's what we would have to do.
CHAIRMAN BEDESSEM: I guess we would like to see what will happen with that. Sorry I interrupted the flow.
MR. CRIPE: Madam Chair, this is Rich. Can I get some clarification? I'm going to go back, what I think I heard. And first of all, those figures got

pulled out of the regulation from comments that people felt that they might not be used or someone might not use them very often or have a clear understanding. And to expedite and at least allow it to be in a design package which is not part of a rule, we put it there to not lose that information, but still have the ability for a homeowner, if they have that type of situation, which is typically meaning the water gets perched because of some kind of layer there, that they had a calculation so that they wouldn't have one of their systems fail. I guess I'm asking is it wanted back in the rule?
CHAIRMAN BEDESSEM: No.
MR. CRIPE: And if we're going to take it and put it in a design package to have it there when it gets used once in a while, how is that part of the rule, I guess? I'm trying to get clarification.
CHAIRMAN BEDESSEM: Rich -- and feel free to give me a high sign if I'm not saying what you think we just agreed on here. But no, we are not asking for it to be put back. The first thing we were asking is that the responses to the comments more accurately reflect what I'm hearing your opinion is, and that, yes, it be included in the guidance document. And we're not asking for that to be sent to the board for approval or anything like that. We just want you guys to report back and let

us know how that was handled in that guidance.
Because I think the assessment was that we all agree that should be in the guidance document, and we're hoping that in the guidance document, that it will have more explanation of how people can use it and more so than is in the rule. So it will not be used incorrectly, and it will be filled out a little more.
MR. CRIPE: Okay. Thank you for your clarification. I was just trying to understand all of the talk there. I'm totally okay with that.
CHAIRMAN BEDESSEM: Okay. I think we're all in agreement here, too, Rich. Thank you for bringing that up so there was no misunderstanding.
MR. APPLEGATE: You're up, Marge.
MS. CAHN: I'm on Section 9. Did anybody have anything on Section 8? On 9(a)(iii)(B), where it

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

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

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

MR. STRONG: Yes.

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

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

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

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

MR. STRONG: And it might help to identify it. Basically where the tee comes in, here's the liquid level. The tee has to be six inches here. And then for -- say if it's four foot deep, so 48 inches times 40 would be --

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

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

MS. CAHN: 30 percent.

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

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

MR. STRONG: Sorry.

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

MR. STRONG: Yes.

MS. CAHN: So maybe we could --

MR. STRONG: Well, from the liquid level. Because, actually, the outlet tee -- or, the outlet tee is two inches below. The inlet tee is two inches above the outlet. So there's an actual difference in the

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

MS. CAHN: So extend down.

MR. STRONG: Extend down.

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

MR. APPLEGATE: I think it makes complete sense myself.

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

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

MS. CAHN: Below.

MR. APPLEGATE: Below. Below.

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

MR. APPLEGATE: 30 or 40 percent below.

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

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

MS. CAHN: Do you have a better suggestion?

MR. REPPA: I have a great suggestion.

MS. CAHN: I would love to hear it.

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

MR. STRONG: Why is that incorrect?

MR. REPPA: It's not deep enough.

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

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

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inch above, I agree.

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

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

MS. CAHN: Let's talk about the outlet. That makes sense to me.

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

MR. STRONG: Correct.

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

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

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

well with small wastewater systems. And this is one of those approaches that we might be getting a little more strict by doing that.
MS. CAHN: I don't have a problem with being stricter.
MR. STRONG: I guess I will point out that a delegated county can enact stricter requirements than DEQ has. So any delegated county that feels that 40 is more appropriate, 40 to 50 or whatever is more appropriate for their county, they have the ability to do that.
MR. HANSON: Just as a bloody layman, why are we using two means of measuring? We are using six inches one way and percent the other way.
MS. CAHN: Because the tanks are different sizes.
MR. STRONG: Because the liquid level can be from three to six feet. So, depending on how deep your liquid level is determines how deep the tee has to be. It's not a fixed number. It's based off of the actual depth of the tank. So a six-foot tank is going to have a longer tee to get to that 30 to 40 range, as opposed to a three-foot tank.
MR. JONES: Isn't your liquid level actually going to be your outlet?
MR. STRONG: Yes.
MR. JONES: So, to the gentleman's comment about changing the word "liquid level" to "outlet," what's wrong with that?
MS. CAHN: I like that. It simplifies it, I think.
MR. STRONG: Okay.
MS. CAHN: The tees or baffles shall extend up a minimum of six inches above the outlet, the bottom of the outlet, the outflow.
MR. JONES: It's on 426.
MR. STRONG: No. It's very specific to the outlet invert elevations, so we might have to define the invert elevations so it's clear. But the flow line would be outlet. Can I ponder that one, I'm sorry to say?
MS. CAHN: Yeah.
MR. JONES: We'll definitely look at it and see if we can simplify it and make it easier to understand.
CHAIRMAN BEDESSEM: One more thing. I need to go back to a previous comment that I had in the answer with respect to width of the trench. We talked about the chambers, the width of the trench being three feet, and some comments from stakeholders about how that's difficult because there's only two-inch clearance. And my recollection is that when you responded to me just a little bit earlier, you said, well, that three feet is just what's going to be used for the calculation.
MR. STRONG: Correct.
CHAIRMAN BEDESSEM: But when I read the rule, in two spots it says maximum width of trench excavation is three feet. And so, if a layman is reading this, he thinks he can't dig a hole wider than three feet. And so I feel like we're not addressing the

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

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

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

trenches definitely applies to the rock-and-pipe system.
CHAIRMAN BEDESSEM: Which I think -- and I don't think your stakeholders complained about using three feet there. The complaint is when it's stuck under the chamber section.
MR. STRONG: Okay. We can clear that up, because it's not our intent to make it unconstructible. When we get -- we viewed it a little bit different. Yes, we'll get that corrected. Now that you got me out of order --
MR. JONES: So does the same apply for Section (vi) of that Section 11, (vi)(D), that says the same thing when you're talking about trenches for perforated pipe?
MR. STRONG: Perforated pipe, it has to be three foot.
MR. JONES: Can't dig wider than three foot?
MR. STRONG: You won't get any credit for it. Because when you do the excavation for rock and pipe, you actually use the excavation, and you fill it full of rock. So however wide the excavation is is how wide the rock's going to level.
MR. JONES: Thanks for the clarification.
CHAIRMAN BEDESSEM: You buy these little arch shapes, and they're this wide, and you have to fit it in.
MR. APPLEGATE: It has to be wider to drop it in?
MR. STRONG: Yes. We can get that corrected. It's all perspective.

MS. CAHN: Can we go back to Section 9? I want to go back to -- I'm pondering this 30 to 40 percent.
MR. TILLMAN: Madam Chair, Bill Tillman, DEQ in Cheyenne. I'm confused as to what was just exchanged there. You're wanting us to change something on the width of the trench?
MR. STRONG: They're asking, on the actual excavation for installing the chamber systems, can the actual excavation be wider than three feet for installation of the chambers?
CHAIRMAN BEDESSEM: Because several stakeholders have commented that that was a big pain because they had to walk these in because they're 34 inches wide. And we're looking for some --
MR. STRONG: It's referring to constructibility, as opposed to design width.
MR. CRIPE: So I guess our answer would be, yes, they can go wider than three. What I understand and what we were trying to cover there was to calculate the size.
CHAIRMAN BEDESSEM: And we agreed.
MS. JOHNSON: So, Rich, we need to reword that statement to make it clear that we're using that for calculation purposes. Because right now it reads that you cannot excavate. And we need to make it more clear that that three feet is for calculation purposes.
MS. CAHN: So we could start the sentence with, for calculation purposes, the maximum width -- of

the trench width --
MR. STRONG: Trench width, yeah. We can clarify that.
MS. CAHN: We don't need the word "excavation."
MS. JOHNSON: Exactly.
CHAIRMAN BEDESSEM: Because you're not trying to direct them how to install it. You're just saying you're not going to get credit for more than three feet?
MR. STRONG: Yes.
CHAIRMAN BEDESSEM: So, thank you. Because people were reading it as, oh, gosh, I can only make a hole this wide and have to wiggle this in. I think we're good.
MS. CAHN: Go ahead, Rich.
MR. CRIPE: Madam Chair, we're good with that. We were just trying to get clarification. The conversation went a lot of different directions.
CHAIRMAN BEDESSEM: I commend you if you were able to follow that over the phone without seeing

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everything that is going on here. Thank you for bearing with us.
MS. CAHN: I want to go back to this baffle and the bottom of the baffle or the bottom of the tee. And I'm going to take exception, Rich, with what you said about how it would be more restrictive to say that it's 40 percent. Basically all we're trying to do is ensure that that baffle is in the clear liquid level. And so I don't see how having a longer baffle is more restrictive. It's just -- it's more insurance that it's in clear liquid level. So I don't understand your comment about it being more restrictive or more regulatory or something.
CHAIRMAN BEDESSEM: I was going to say aren't these premanufactured, and there's a range?
MR. STRONG: Yes. Most of these are premanufactured. I think what it's coming down to is the definition of what is the clear zone. It's a differencing of opinion there whether it's the 30 or the 40 or what the case may be. We based ours off the EPA recommendations of 30 to 40 percent for the clear zone.
MS. CAHN: But if you're in the clear zone at 30 percent, then you would certainly be in it at 40 percent. Right? So 40 percent is -- nobody would disagree that at 40 percent, you're in the clear zone,

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and there's some question as to whether or not at 30 percent you are in the clear zone?
MR. STRONG: Well, it's how specific do we want to be on them cutting that tee? Do they have to be right at 40 percent, or are we going to give them a range to fluctuate in? This is really what it's coming down to.
MS. CAHN: Say the recommended level is 40 percent?
MR. STRONG: Can't do recommendations in regulations. That's why we use the 30, 40, because it gave them the ability to have a differing range or have a range for it to hit instead of just a set number like we do for liquid depth. We say three to six feet. Here we're saying 30 to 40 percent. It's a range to hit, as

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

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

MR. STRONG: Or as a county, he can require 40 percent, as opposed to 30 percent.

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

MR. REPPA: I'm sorry?

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

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

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

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

MR. REPPA: Okay.

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

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

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

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

MR. JONES: Why don't you demonstrate it

up there?
MS. CAHN: When you demonstrate, it makes sense. When you read that, it gets confusing about the outlet elevation being a minimum distance of 20 percent of the liquid depth.
MR. STRONG: And I can say when it comes to the septic tank requirements, we do have an approved list out there so the homeowners know which tanks they can buy that are meeting these requirements. And we do have that posted on our website to help with that. Because the septic tank portion itself is very technical and can be confusing at times. And that's why we created that A list, B list, so people know what tanks meet our requirements so they know which one to buy so that they comply with regulations, if that helps.
MS. CAHN: I want to go back to Dick Bachelder's comments, because I have a note that his comment wasn't addressed properly.
MR. STRONG: With Dick Bachelder, I can tell you I've had several conversations with him after these -- during and after these responses were prepared. And he is capable of meeting that regulation now. And we developed a very reasonable and adequate solution for him. Obviously it's not reflected in responses because that happened after we started advertising and we got

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down to the root of the issue. It took some phone calls back and forth to truly understand what he was getting at.
MS. CAHN: Moving down below there to (v)(A), and I have a question about the "unrestricted," the use of the word "unrestricted." The outlet of each successive tank shall be at least two inches lower than the outlet of the preceding tank and shall be unrestricted except for the inlet to the first tank and the outlet for the last tank. What does that mean, unrestricted? No tee or baffle?
MR. STRONG: No tee, no drop. It's meant to be just a constant-grade pipe, where like with the tee, it's restricted because it turns down. So the water actually hits the tee and then goes down. We didn't want to see pipe sections where they do a vertical drop or something. Has to be a continuous --
MS. CAHN: Could you put a parentheses after that, what unrestricted means, no tee or baffle, just to explain what you mean?
MR. STRONG: Okay.
MS. CAHN: Unrestricted means a lot of different things.
And then we had this question before from stakeholders about how can you have three tanks in a

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series with these regulations? The next line down, (B), the first tank or the first compartment of the first tank shall be equal to 50 percent or larger of the total septic tank system volume. Then this basically -- each successive tank has to be smaller.
MR. STRONG: Yes. Each successive tank would have to be smaller. We need the 50 percent in that first tank, that first compartment, because that's the primary scum collector, primary collection of settleable solids. And if you reduce that, it carries it down through the system sooner. The second chamber or the

second tank is more -- I don't want to say polishy. It's getting to final particles. It's getting to finer things. And if you have that migrate sooner, it's going to get into your leach field sooner.
MS. CAHN: So three is not impossible with this.
MR. STRONG: No.
MS. CAHN: They're just smaller and smaller.
MR. STRONG: And the reason we left it open like that, it may be cheaper for a landowner to buy -- I don't know why, but you never know. They buy -- they need 2,000 gallons. They buy 1,000-gallon tank and two 500 tanks, and it's cheaper for them. Why can't they
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do it? So we wanted to have that flexibility for them.
MR. TOURNEY: Madam Chair, this is Seth Tourney. I'm southeast district engineer in Cheyenne. And our current regulations actually require that the first compartment has to be 50 percent of the total volume. So the answer to your question really is yes, you can't really have three septic tanks in series. Can only have a maximum of two because we need that first compartment to be 50 percent of the total volume, I guess, unless other tanks are really small enough that you may be able to go up to three. But in general, we see a maximum of two.
MR. STRONG: Yes. That's what we discussed. The second and third tank would have to be significantly smaller to be able to meet that requirement.
MR. APPLEGATE: The example you gave is a good one. You said it could be 1,000 and 500.
MR. STRONG: It could be a situation where you need 1,000 gallons in the first tank with no baffles in it, and the second and third tank can be 500 gallons apiece.
MR. APPLEGATE: Is that a common configuration?
MR. TOURNEY: We don't see that
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configuration really very much at all.
MS. CAHN: I think Teton County, we have three in series. Is that correct?
MR. REPPA: I think I've seen it.
MR. TOURNEY: As a normal installation?
MR. REPPA: No.
MS. CAHN: No.
MR. TOURNEY: Yeah. We don't see that very often unless it's an extraordinary circumstance.
MR. APPLEGATE: So is the caller concerned that it's overly restrictive, or were you just pointing out that, generally speaking, the requirement drives you to two tanks?
MR. TOURNEY: Just clarifying what we typically see in the field in regards to the first chamber volume.
MS. CAHN: And it necessarily has to be -- if this statement were to come out of there, I mean, does the first tank have to be 50 percent or larger?
MR. STRONG: Yes.
MR. TOURNEY: Yeah. That's in our current regulations.

MS. CAHN: I'm not asking about because it's in regulations or not. I'm just asking for effectiveness of the system. Will the system work properly if you don't have that in there?

MR. STRONG: For cooperation in the second tank.

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

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

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

I see permit by rule.

MR. STRONG: Where?

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

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

MS. CAHN: I just saw it. Oh, there it is. Next one, dosing tanks. So I'm going down to (b). So we're 9(b)(i). Dosing tanks shall meet the same material as -- okay -- and installation requirements as septic tanks. And I'm wondering why we have installation requirements. I don't know why I have that crossed out.

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

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

MR. STRONG: Yes.

MR. HANSON: What is a dosing tank?

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

MS. CAHN: And then the next sentence, dosing tanks shall have a 20-inch diameter access riser, and I think Dwight had a comment or somebody had a comment about that should really be 24 inches. First of all, the word "minimum" is missing. I don't think we want to require them all to be 20 inches.

MR. STRONG: Yes.

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

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

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

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

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

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

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

MR. STRONG: I understand.

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

MR. STRONG: I guess the intent is --

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

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

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MR. APPLEGATE: And if the standard septic tanks have 20-inch --

MR. STRONG: Holes.

MR. APPLEGATE: If that's how they've been designed by manufacturers --

MS. CAHN: Is that correct?

MR. REPPA: I have not seen any --

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

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

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

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

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

MS. CAHN: Right. I'm suggesting we change it for both.

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

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

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

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

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

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

CHAIRMAN BEDESSEM: He must not be on the line.

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

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

MS. CAHN: For new ones.

MR. STRONG: For new ones.

MR. TOURNEY: We can't answer that one because we got to pull all the preapproved septic tank submittals that we have. And they're sitting in James Brough's office in Lander. So we'll have to gather that one.

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

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

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

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

MS. CAHN: Okay. I mean, I can make my way through it. My main concern is there was no callout. So we need to say what the purpose of it is.

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

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

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

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

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

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

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

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

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

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

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

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

MR. STRONG: I stand corrected.

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

MR. STRONG: No. That's good.

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

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

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

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

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

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

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

MR. APPLEGATE: I think you shared that when they deleted (B).

MS. CAHN: Oh, right. Right. So we can move on. It's in Section 9. So I'm actually done with Section 9, other than editorial under car washes. (B)(I), get rid of "utilizing" and just use "using."

MR. STRONG: Where are you at?

MR. APPLEGATE: Line 696.
MS. CAHN: I'm on the clean version.
MR. STRONG: We see it.
MR. HANSON: I'd seen the word before.
MR. STRONG: We can change it.
MS. JOHNSON: We changed one in one other spot.
MS. CAHN: Do a word search.
MR. HANSON: Because it occurred to me that "utilizing" made no sense, and it was "using." And so I saw it.

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MS. CAHN: I'm done with that section.
MR. APPLEGATE: You're in Section 11?
MS. CAHN: Section 11.
CHAIRMAN BEDESSEM: I don't have a remark seeking change or anything like that. It's just that in the response to comments --
MS. CAHN: Which response to comments, oral or revised?
CHAIRMAN BEDESSEM: This is the revised response to stakeholder comments on page 50.
MS. CAHN: Which page?
CHAIRMAN BEDESSEM: 50. And this is kind of a general comment, but it's kind of highlighted in the responses here, is that -- we've got a response that's the second sentence. Requires a minimum distance of nine inches or 20 percent, all sorts of discussion about that. I would just like in the response to comments that it says why. Because all the response says is this is what we're doing. But there's absolutely nothing in there so that --
MR. STRONG: We need to add "per EPA."
CHAIRMAN BEDESSEM: Whatever the reason is. And that happens in numerous spots, where if you were -- in other words, if you want something different, somebody else comes back and tries to revise the rules

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

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

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

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

MR. STRONG: A justification.

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

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

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

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

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

MR. CRIPE: Madam Chair, this is Rich Cripe. I believe it's our intent that we are trying to be responsive, whether that was understood that way or perceived that way. We will review what the standard is on those openings. What I recollect, without having something in front of me, but that was what the standard was. And in point of question, if we find that that's what the case is and we do go back like you guys have asked us to do and change the comments, and for whatever reason, if, for sake of just discussion -- because I'm not trying to argue or anything. But say the openings are 20. Then would you be acceptable that if we set a minimum of 20 -- because what my question is more directed is, if they're 24, I don't think any of us are arguing that. But if they're 20, then we're going to have manufacturers go back and do something different if that's what the standard is. And they'll have to

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

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

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

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

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

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

MR. CRIPE: Will do.

CHAIRMAN BEDESSEM: Sounds good.

MS. CAHN: We need to get to greywater.

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

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

CHAIRMAN BEDESSEM: What section are we up to?

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

MR. TILLMAN: Madam Chair?

CHAIRMAN BEDESSEM: Yes.

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

MR. APPLEGATE: I didn't raise the

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

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

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

MR. APPLEGATE: That's correct.

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

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

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

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

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

MS. CAHN: And also, since you guys had convened -- which I thought was a great idea. You convened a stakeholder group of practitioners, people within DEQ, practitioners out in the field, vendors, you know, counties. You convened the stakeholder group. You know how to get ahold of all those people. So, if you don't understand somebody's question, get on the phone and call them. Talk to them about it.

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

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

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

MR. STRONG: We will do that.

MR. TILLMAN: All right. Thank you.

CHAIRMAN BEDESSEM: What section are we up to now?

MS. CAHN: 11.

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MR. APPLEGATE: No.

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

MR. APPLEGATE: I do. Do you need a breather?

MS. CAHN: No, I don't.

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

MS. CAHN: Yes.

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

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

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

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

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

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

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

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

MR. STRONG: No.

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

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

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

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

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

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

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

MR. APPLEGATE: That's correct.

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

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

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

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

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

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none of them are acknowledging the receipt of that study.

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

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

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

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

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

MS. CAHN: Either does Texas.

MR. STRONG: And the disinfection

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

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

MR. STRONG: Bathing.

MS. CAHN: What's that?

MR. STRONG: Bathing can with young children.

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

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

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

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

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

they go into the landfill. Not that I like that. But
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that doesn't happen anymore.
MS. CAHN: I washed diapers 20 years ago --
MR. HANSON: Yeah, 20 years ago.
MS. CAHN: -- 24 years ago. And then there was a diaper service, and I switched immediately and let somebody else wash the diapers.
MR. HANSON: We've concentrated on that one. And I can see some kitchen facilities, you have people who pour gasoline down their kitchen sink, you know, or something like that and recycle oil that way or whatever, stupid things. But for the most part, I think what you're talking about with greywater is fairly usable water. And I think what you're stating here, it should be fairly safe. What you're using and what you don't use makes some sense to me. But most of it, I think most people are doing it reasonably well.
MR. STRONG: I guess I wouldn't agree completely that greywater is safe just as is. Even without the diapers, I would disagree with you on that. I guess our concern or the information we have seen is the people using greywater now have the mentality of recycle, reuse. And that includes -- cloth diapers are recycling, are reusing. And they follow that line, and they're more likely to use diapers. And I can't remember
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who I talked to about it. And he said that very same thing. "I have a greywater system. I'm very green-oriented. Therefore, I do that." And for the life of me, I can't remember who. So it's -- we're addressing a segment of the population that believes in that. And we just don't want to see them get sick because of the greywater system. That's our concern.
MR. JONES: I'll weigh in a little bit, because I guess I've thought about this because the house I live in is conditioned to a greywater system. But then as I studied more and more in depth, I think the rules -- I think we have to walk before we run. And I guess the simplest way is to catch a little bit of your shower water from the drain and put it in a jar and see how long it lasts. And it's going to get scum, and it's going to get other stuff.
To effectively use greywater, I think you have to start with a whole system of what soap you use, what detergents, what shampoos. All of those things that clean the body have to be considered, because some of them are going to be more conducive to corrosion, if you want to call it that, or scum in that tank. And there's going to have to be a certain amount of disinfectant through the system, in my opinion, anyway, to keep a clean system to where you're not jeopardizing the public.
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If you've ever parked your car along a street that is using recycled water -- legally or illegally, doesn't matter -- and that sprinkler happens to hit your vehicle, it's tough stuff to get off. So there are probably systems out there that are not regulated. But I guess my ultimate suggestion would be to get a group of stakeholders that are interested in it and get their input as to what regulations they think are very, very important to protect the environment and also to protect

the public.
MR. STRONG: We've had stakeholder comments on greywater.
MR. JONES: Have you?
MR. STRONG: Yes. And from the delegated counties that have had these permit by rules or these greywater systems were very concerned, and they were very supportive of that regulation because it established what needed to be done and how it could be done so that these systems could function safely.
CHAIRMAN BEDESSEM: I have a question. What you specify, you have subsurface irrigation treated differently than surface irrigation, where the disinfection is just required for the surface irrigation. And then when you talk about setbacks and the 30-foot buffer zone, you say the buffer zone requirement may be

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met by the use of drip irrigation. So, if you have drip irrigation, you don't have to have a 30-foot buffer.
MR. STRONG: Correct.
CHAIRMAN BEDESSEM: But I guess what I don't understand is, is subsurface irrigation synonymous with drip irrigation? So if they're not --
MR. STRONG: They can be subsurface --
MS. CAHN: I have that same question.
CHAIRMAN BEDESSEM: Because, to me, it almost seems like if you have your rules say subsurface irrigation and surface irrigation, then you have a bunch of setback rules that maybe the setback issues should be put under what applies to subsurface, what applies to surface, just because I was unclear when I read this as far as, well, then what applies back here? Because this says drip, and this says subsurface. And I wasn't sure. So take a look at that.
MR. STRONG: Our intent got miscommunicated. We'll get that corrected.
MS. CAHN: Is there another kind of irrigation for surface irrigation besides spray irrigation? You got drip. Right?
MR. STRONG: You can do flood irrigation.
MS. CAHN: You can flood or you can drip.
MR. STRONG: Flood, drip or spray, yes.

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MS. CAHN: So is part of -- a lot of the problems, it seems like, is spray irrigation is a lot of the problem. So, if we didn't allow spray irrigation, people could still surface-irrigate with drip or flood, and maybe the requirements would be -- could be less restrictive if we got rid of spray -- I mean, some states have done that, where they just said, okay, no spray irrigation. So would that be any -- people have said we want to be able to irrigate at the surface. We know there's problems with spray irrigation, so maybe we could just -- I think Texas is one where they say no spray irrigation.
MR. HANSON: And get it on your car.
MR. STRONG: That's right.
MR. CRIPE: Ms. Cahn, this is Rich in Cheyenne. I hear your point of view. I appreciate your point of view. I guess I would ask a question and put it in the Hatfield/McCoy situation of, okay, say we entertain and did that and it floods off the property and goes onto someone else's property. Then we have an issue

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

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

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

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

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

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

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

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

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

Again, I'm not well versed in this particular risk assessment, but I believe that you may be overstating the risk. And I want to better understand it. And I'll leave it at that. I mean, if we're trying -- you could try -- the argument of risk management is a degree of gradation. And you can always argue that there's risk that you should regulate. And again, this is an issue of balancing water reuse and recycling against risk. And I'm not saying I have an answer to that. All I was saying from the beginning is I believe you've written the regulation in such a manner that you're discouraging the use of greywater. If that's your intent, you've done that successfully. And if that's not your intent, then we should step back and ask ourselves if we're managing the risk appropriately.

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

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

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

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bases covered.

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

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

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

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

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

MR. APPLEGATE: I believe that would be helpful.

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

CHAIRMAN BEDESSEM: We have a board member that --

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

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

CHAIRMAN BEDESSEM: Yes.

(Hearing proceedings recessed 3:04 p.m. to 3:16 p.m.)

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

MR. STRONG: We're wearing you down.

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

MS. CAHN: Yes. I'm having a hard time following Section (b)(A) with the number of occupants of each dwelling unit shall be calculated as follows. And it says second and subsequent bedrooms equals two occupants. Does that mean if you have eight bedrooms, you still only have two occupants, so you have -- so you have two for your first bedroom, and then you have -- is it two occupants per bedroom?

MR. STRONG: Yes.

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

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

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

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

On (iv), setbacks, again, I'm just -- it seems like a 30-foot buffer, is that needed? If we -- I mean, for septic systems, we have a ten-foot setback, and here we have a 30-foot setback. And maybe the setbacks are different, because we talked about maybe the setbacks will be different per use. So, if you're doing subsurface irrigation, the setback might be less than if we're doing surface.

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

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

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

MS. CAHN: And I'm thinking if spray irrigation is the problem, that's where you think you need the disinfection, let's get rid of the disinfection. Let's get rid of the spray irrigation. And then maybe that simplifies it. Because I know some people who called me read this disinfection and thought it applied

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

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

MS. CAHN: Yeah.

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

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

MR. STRONG: Yes, we do.

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

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

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

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

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

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

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

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

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

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

MR. CRIPE: Madam Chair, this is Rich in

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

MR. STRONG: Yes. Thank you, Rich.

MR. CRIPE: Did that address your question?

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

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

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or the garden or whatever the case may be.

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

MR. STRONG: Yes.

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

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

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

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

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

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

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

them can actually give you worse results. And we felt disinfection, where they maintain chlorine residual in their tank would be a simpler way for them to maintain that lower level and not have to worry about doing monthly or bi-monthly monitoring or whatever duration we determine. A floating chlorine dispenser inside the tank that maintains the residual can keep the levels knocked down. And that would be included in the guidance document, how to do that.

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

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

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

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

On page 25 dash -- do we want to move on to Section 17, or do we want to go back to Section 11?

CHAIRMAN BEDESSEM: Can we go back? Because I had a couple comments.

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

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

CHAIRMAN BEDESSEM: Isn't 17 the last one?

MS. CAHN: And there's also appendices.

CHAIRMAN BEDESSEM: Do you have any comments on that?

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

CHAIRMAN BEDESSEM: Let's go back, then.

MR. STRONG: We are on 11.

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

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

MS. CAHN: And part of my question is, is it really realistic to have any soil that is absent of any clay? Could we just simplify it to say percolation rates shall be faster than 60 minutes per inch? Because if there's a little, tiny bit of clay, a small section of clay that you can get to 60 minutes -- faster than 60 minutes per inch, isn't that okay? When it says absent of clay --

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

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

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

MR. STRONG: Okay.

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

MR. STRONG: Okay.

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

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

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

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

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

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

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

MR. STRONG: Oh, the 30 to 60?

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

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configuration, rather than a standard bed?

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

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

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

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

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

MS. CAHN: Yeah. That would be my take on it. I'm not going to be popular with my friends in Wilson, but I'd like to see it.
CHAIRMAN BEDESSEM: But those response to comments will support why one way or the other, and we'll go from there.

MS. CAHN: And that's pretty much all I have for 11.
CHAIRMAN BEDESSEM: I didn't have anything for 11.
MR. STRONG: Section 12.
CHAIRMAN BEDESSEM: I don't have anything.
MS. CAHN: Can you believe it? I don't have anything for Section 12.
MR. STRONG: Section 13.
CHAIRMAN BEDESSEM: So the comment I had in 13 goes back to supporting the response to comments, in that there were several comments that said that the standard distance was a three-feet vertical separation. And this rule is updated to a four-foot vertical separation distance. And the response was the four-foot separation gives a little more safety factor to ensure treatment of the wastewater before reaching groundwater. Yes, that's a fact. Four feet is more conservative. However, that's not the kind of requirement we're looking for. We're looking for --
MR. STRONG: What we base that four foot off of?
CHAIRMAN BEDESSEM: Right.
MR. STRONG: Yes.
CHAIRMAN BEDESSEM: We've had problems

between doing four based on years of operating septic systems and state we think it's important to move to four.
MR. STRONG: I believe it's always been four. I don't recall that it was three. But I'll have to take a second to look.
CHAIRMAN BEDESSEM: Ultimately the comment says the existing regulations allow --
MR. STRONG: We will take a second look at the comments.
CHAIRMAN BEDESSEM: So probably had a very good reason, but you can't tell.
MR. STRONG: Yeah. The EPA manuals are very specific. That's what we based it off of. So we need to include that.
CHAIRMAN BEDESSEM: The existing regs are three, but currently nationwide the current EPA regs are four based on a history of whatever failures that we do have. They're not really a failure. It's hard to judge that as a failure.
MR. STRONG: Yeah. I understand. We need to justify our statements in our decisions.
CHAIRMAN BEDESSEM: That's all I had on that. My next comment was on 15. So I'll leave that to Lorie.

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

allowed one to 60 in here. We're allowing for a sand mound system, five to 60. And you probably have a justification for it. I just don't understand.
CHAIRMAN BEDESSEM: What page are you on?
MR. STRONG: 27, line 932.
MS. CAHN: Under sand mound systems, it's under (b), site requirements, Number (ii).
CHAIRMAN BEDESSEM: What line in the draft?
MS. CAHN: Well, in the clean draft, it's on 832, 831 to 833.
MS. JOHNSON: In the draft that I think you're in Marge, it's 932 through 934.
MR. STRONG: And the justification for the five minute per inch is that this sand has got a high perc rate in the sand mound portion. And when it gets down to where it needs to have something slower to provide treatment and distribution down through the system, typically a sound mound situation with high groundwater, and we want to get that slowed down to make sure that's not contaminated groundwater.

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MS. CAHN: Thank you. I'm in Section 14 now. So, on the selection criteria where we're saying the size of the property -- so I'm in (a)(iii) -- of a lagoon shall not be installed on a property less than three acres in size. But we have setbacks, and the setbacks are in -- where are the setbacks?
MR. STRONG: Setbacks for lagoons are actually below under the general design requirements, saying that the lagoon --
MS. CAHN: Oh, there they are.
MR. STRONG: -- cannot be within 100 foot of the property line.
MS. CAHN: So it seems like as long as they meet the setback, why do they also need an acreage -- the three acres in size, as well? Could we rely on the setback and still -- a 100-foot setback and still be okay?
MR. STRONG: Rich or Bill, do you recall why the three acres was established? I do not off the top of my head.
MR. CRIPE: Madam Chair, Frank, that's not something that's off the top of my head that I can think. There was some rationale behind it, but it's not -- I don't recall it at this moment.
MS. CAHN: Anyways, just consider that,

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that perhaps the acreage isn't necessary and the setback would be appropriate. Just consider that.
MR. STRONG: Yeah, we will.
MS. CAHN: In (b)(i), the general design requirements, it refers to beyond the horizontal setback distances requirements specified in Section 6(d). I don't think that's the right reference. I'm thinking it's Table 4.
MR. STRONG: Yeah. It should be 6(g). You are correct. Because a lagoon system does require a septic tank. It will have to meet those setbacks established there, too.
MS. CAHN: So just fix the reference.
MR. STRONG: Uh-huh.
MS. CAHN: And essentially, we could

reference that Table 4. Okay, great. Thank you.
On the formula in (b)(vii), I really struggled with the wording of "the area." Area of the lagoon at the five-foot depth water level in square feet.
MR. STRONG: Five-foot water depth level. Essentially, when the pond is five foot full of water, what is the surface area of the water?
MS. CAHN: Could we say something like area of the lagoon calculated at the maximum water level depth, in parentheses, in square feet?

MR. STRONG: Yeah. We could check on that wording. It got turned around on us.
CHAIRMAN BEDESSEM: Where are you at?
MS. CAHN: I'm done with 14.
CHAIRMAN BEDESSEM: I have the same comment in 14 that I had in 15. And that has to do with the wording of the paragraph that talks about the design package, which I think it's great that you have a design package. But I have trouble with the sentence that says, the general design requirements stated in this section are incorporated into the worksheets, such that by completing the forms, the system will comply with these requirements. I could fill out the form. Doesn't mean my system is going to be -- do you see what I mean?
MR. STRONG: Properly.
CHAIRMAN BEDESSEM: No. Such that the design meets --
MS. CAHN: -- the requirements.
CHAIRMAN BEDESSEM: -- outlined in the forms. Filling out a piece of paper doesn't make my system comply. It's the grammar in the sentence.
MR. STRONG: Okay. We'll take a look at that, because we have the same sentence in here in a couple of spots. Copy/paste is great.
CHAIRMAN BEDESSEM: Yeah. It's the same

thing.
MR. STRONG: We can take a look at the wording.
CHAIRMAN BEDESSEM: If the design is developed to complete --
MS. CAHN: So this is in the general permits? I'm still confused.
CHAIRMAN BEDESSEM: Yes, this is the general permits.
MS. CAHN: So, therefore, in essence, the general permit is issued or whatever.
MR. STRONG: Yes.
MS. CAHN: So do we need to finish that sentence, also, in saying upon --
MR. STRONG: Well, actually, the requirements for a general permit and the time lines are established in Chapter 3 of our rules and regulations. And we try not to repeat ourselves.
MS. CAHN: That's good. Thank you.
CHAIRMAN BEDESSEM: So, if the system is designed in accordance with those forms, it will comply?
MR. STRONG: (Nods head.)
MS. CAHN: I'm on 17.
MR. JONES: Good. You skipped 16.
MS. CAHN: We already did that. We beat

16 to death.
Operations and maintenance. We have in (b), septic tanks shall be pumped out as needed to prevent solids carryover into the soil absorption system. And if I was a homeowner, I would like some definition of what's "as needed." And I know it's difficult in Teton County because we have some people who are here so intermittently. They're here two weeks out of the year. So their system probably doesn't need to be pumped out as often as other people's. And there's other places where there might be ten, twelve people living in a small house. So is there some kind of guidance, every -- some states have it every so many years or some percent of solid or sludge accumulates.

MR. STRONG: It's very tough to establish, because it depends if you have a garbage disposal or not, how you operate your system. You hear every three years, every five years.

CHAIRMAN BEDESSEM: And local counties, you know, publish educational information for people, as well. But it's not like it's an enforceable thing. No homeowner is going to have to comply with a four-year. Because a four-year might not be enough for somebody, but too much for somebody else. It depends on how -- you know, if you use your garbage disposal or you don't use

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your garbage disposal. So it's a difficult one.

MS. CAHN: I don't have an easy answer. I'm just wondering. Because if I look down at (c) below, it says holding tanks and how often those should be pumped. Probably reaching their maximum capacity. Then it says it is preferable that these tanks be pumped before the wastewater volume exceeds 75 percent. So could we say on septic tanks, it is preferable that the tanks be pumped every so many years, three to five years, or as sludge solids have accumulated 25 percent?

MR. STRONG: I hate to say it, but you caught a mistake. We should not have "preferable" in there.

MS. CAHN: I was just going to say, this is an exception to that rule, so I don't want to make another one.

MR. STRONG: That may be more appropriate in a guidance document we'll talk about through the years. But that "preferable" should not be in there. So thank you for catching that.

MS. CAHN: So take it out. And please have your guidance document put in some kind of accumulation. And also, recognizing that it's difficult to judge if you're at 25 percent, what your percent is, it's easier to go by the years. It could say, however,

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depending on the, you know, occupancy --

MR. REPPA: I believe EPA does have guidelines on that. We represent in other places in this document that this is what EPA says. So I think you could use the EPA or some other basis to substantiate your comment.

MR. STRONG: Thank you.

MS. CAHN: I'm on Appendix A. I'm having problems with math again. So, in preparing the hole in (b), Section 2(b), you dig a four-inch- to twelve-inch- diameter hole -- oh, diameter hole. Okay. But it

doesn't tell you -- okay. I guess I take that back. Scratch that.

I'm going down to (c)(A), under presoaking in the hole. And a lot of places here we have an eighteen-inch hole. There's lots of ways of doing perc tests. Can you give some kind of reference where you decided on this particular one? Because this one has -- I've seen one where you've got a six-inch test, and you go from six inches to five inches or -- and so it seems like you have a higher -- did you choose one with a higher head for a reason?

MR. STRONG: What we did is we revised it to simplify it for the homeowner to perform the test. It's very difficult to measure an inch drop and then

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refill it an inch and measure an inch drop. We want to give them where they could incrementally watch it go down and then fill it up the twelve inches and then let it go down and refill it. We're trying to simplify it for the homeowner to make it more so he can have more accurate results and easier for him to understand. The perc test as established, it was very specific.

MS. CAHN: Six to five.

MR. STRONG: Yeah. You watch it go down, fill it back up. And that's great in a laboratory test. It's good in a field test. But we tried to simplify it for the homeowner to make it easier for them to perform the test.

MS. JOHNSON: And bad weather conditions where the wind is blowing and just give them a bigger volume to work with so that they weren't having to constantly --

MR. STRONG: And where you could do several readings. You get it too high and have to wait for it to go down. They waited too long. The homeowner could get frustrated in that he really may not read it as accurately and take as much time. And this was meant to try to improve the test for them.

MS. CAHN: I guess my question is now you're designing a test that has a higher head than the

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standard perc test of six to five. So is that somehow accounted for? You're going to have a faster --

MR. STRONG: We did do the calculations on the increase in head, the impact. It was not significant. I cannot recall the numbers now in my head, but it was marginal to the effect it would have on the system.

MS. CAHN: On (d)(ii), where it says establish a fixed reference point to measure the incremental water level drop, I understand what that means, but I'm not sure somebody reading through this who hasn't done a perc test, a homeowner, is going to know. Can you give them some guidance where you want to see it?

MR. STRONG: Yeah. And currently and then when this is passed, we'll update -- we have a guidance document for that that's got diagrams and stuff so they can visualize how to do it.

MS. CAHN: That's it for Appendix A. And no comments on Appendix B.

CHAIRMAN BEDESSEM: I think we've gone through the whole rule.

MR. STRONG: No. We had to have missed

something. Thank you. We appreciate all of the comments. Is there anything else in regards to Chapter 25? And am I correct in assuming that you want us to re-present this at the next meeting?

CHAIRMAN BEDESSEM: You're correct in assuming that. Do we need to have a motion?

MS. CAHN: Well, I have a question. Considering the volume of phone calls, do we want to allow public comments, is kind of where I'm at again?

CHAIRMAN BEDESSEM: I guess my feeling at this point, the comments that we received were not new comments. They were the same comments as before. So, at this point, I don't see that there's a reason for additional public comment. As a result of discussions we've had today, if things are changed to a significant extent, then I think we need to have a discussion about whether we need to have additional comments at that time.

MS. CAHN: They want to make it a disincentive to say, well, if you don't make very many changes, you don't go back out for public comment.

CHAIRMAN BEDESSEM: Right.

MR. STRONG: No. We want to do the right thing. We might joke about that, but we would never do anything like that.

MS. JOHNSON: I think that we need to go back to the office and go through the transcript once it's prepared and get into the nitty-gritty of what each comment was that you have each presented and really weigh out, you know, what can we do? What do we need to change? Some of it might -- a good amount of it was just that it's worded confusingly. So that, we aren't really changing the intent. But if for some reason we went back and rechanged the intent of a section, then obviously we would want to put that out.

MR. STRONG: And that would be greywater, the discussion of greywater.

MS. JOHNSON: Exactly.

MS. CAHN: I think greywater, you're going to want to go back out for public comment.

MR. STRONG: Well, we'll get you guys that information. And greywater, we need to have a discussion on that. The other items we had changed had been do we go 20 or 24? Those aren't significant changes. Those are, I don't want to say minor, but --

MS. CAHN: Well, they're significant to the person who's doing the work. But yeah, I agree.

MR. STRONG: But we have received the comment from 20 to 24, so we know that comment is there. If we do a major revision to greywater, it would be justified to have another comment period. But the other ones we are tweaking, as opposed to changing the intent or the restrictiveness of the regulation.

CHAIRMAN BEDESSEM: Now, in order to save time, right now my expectation is that we would come back next time and go over what changes were made, and if there weren't significant changes, then decide at that point. We'll have a full understanding because we'll have a little more robust response to comments and a little fuller understanding of the intent in how everything was addressed. And if all goes well, we'll be

able to move that forward.
In order to save time, if, let's say in the next month, as you're going through greywater changes, it occurs to you that maybe the greywater system changes are significant enough for public comment --
MS. CAHN: Go ahead and go out?
CHAIRMAN BEDESSEM: -- go ahead and go out, as opposed to waiting until the next board meeting to say, "What do you think?" and then having to go out for comment then. So that's just our suggestion at this point.
MR. STRONG: We understand.
CHAIRMAN BEDESSEM: So then my question is do -- if this is primarily a discussion we're all in agreement just to reconvene and discuss this next time, I don't think we need a motion at this point.
MR. STRONG: No. A motion would be needed if you were going to approve it. And that is not the

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case.
CHAIRMAN BEDESSEM: Any other comments from the board?
(No response.)
MR. STRONG: I believe our last item is to do a short presentation on our streamlining and what you will be seeing next. And Gina is going to lead that off for us.
MS. JOHNSON: I don't recall if it was at the March advisory board meeting or if it was at the June one. I believe it was at the March advisory board meeting. Mr. Applegate had asked us to put together a plan of what each division planned on presenting to you over the next year. And then the next month the governor's office produced a memo that -- or, a letter that you all have received, I believe, you know, kind of giving us a poke in the side, like, look at your rules. So those two exercises kind of went hand in hand. So I'll just give you an update of what Water Quality Division plans to do over the next year.
So, just to summarize, we have that April 2013 letter notifying you that he has asked all executive branches -- or, the executive branch agencies to look at our rules. He wants us to aim for a goal of one-third in reduction, one-third in total number. And he did state

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in there that this is a goal. It's not an absolute. And we're directed to look for areas of consolidation. We're supposed to repeal obsolete or unnecessary rules. So, if a statute has been repealed and you still have a rule, a lot of agencies still have stuff like that on the books. So we're expected to pull those.
And we're also supposed to look for areas to make language more concise. So our director, Todd Parfitt, has requested that each division do some analysis and present -- or, submit to him reduction proposals. We've all done that. They were due on the 1st of September. And Industrial Siting Administrator Luke Esch is putting together that analysis. And in addition to analyzing the proposals, he's gone to each division. We've had sit-down meetings to discuss in detail, what are you doing? What does that really mean?
We're expected to compile our proposal and send it over as one agency-wide report to Governor Mead. And

as the April letter stated, he's going to make a presentation to the Joint Appropriations Interim Committee on the 1st of November.

So, for our particular division, we took a look at what do we have on the books right now? And we have 23 active chapters. We have -- we also have one chapter that's under draft that doesn't technically exist yet,

according to the Secretary of State. And we also have three chapters that are still placeholders, but they've been repealed, and those are Chapters 7, 10 and 18. We repealed them in '04. And their contents were incorporated into Chapter 2. We don't have the most pages for our agency, but we have the most chapters. So Solid and Hazardous Waste had the most pages, and we have the most chapters.

MS. CAHN: But Solid and Hazardous Waste has an easy fix.

MS. JOHNSON: Yeah. Their fix is much easier. Take a 1,700-page document and make it reasonable. That's way easier. We had a little bit more work to do. We didn't have a lot of easy fixes.

And just to give you some notes, if you're checking my math here, we referenced the official copies that the Secretary of State has. The Secretary of State has all the rules. So we used their page counts to total them. And these totals don't include tables of contents. They do include appendices, and chapter has appendices.

All right. So our overall plan is that we'd like to reduce our active chapters by a count of eight, and we'd like to eliminate an estimated 437 pages. And we have a three-part strategy to do that. We'll be combining some chapters to eliminate redundancies in

things like definitions and objectives. We have -- especially in the UIC program, they have multiple chapters, but each chapter just covers a specific well class. Well, the specifications for each well class vary to some extent, but largely, the definitions are the same over and over and over. So we'll be combining things like that to get rid of some redundancy.

We do have some areas where we can eliminate pages through targeted revision to make wording more and concepts more clear. And then we have -- our easy fix is we have three chapters that we don't really deal with that we'd really like to move to someone else.

CHAIRMAN BEDESSEM: Does that really help the overall goal of reduction?

MS. JOHNSON: Well, it does and it doesn't. So, if we look back to Governor Mead's -- I believe his intent was let's make them more usable. 17 and 19, for instance, they're managed by the tank program, which is not in Water Quality.

CHAIRMAN BEDESSEM: Anymore.

MS. JOHNSON: So, if you're a tank person and if you're new, you're dealing with Solid and Hazardous Waste, but you have to look through Water Quality's stuff to get your regs. So we thought that -- and we don't even manage these. When these come to you

for revision and update, it's the Solid and Hazardous Waste Division that's managing them and updating them.

CHAIRMAN BEDESSEM: I recall that was

confusing the last time they came forward and said these are Water Quality rules.
MS. JOHNSON: Exactly. And so we feel that that's confusing. But they're that way due to the way the statute reads. So our goal is to request a statute change and to get those properly transferred. Chapter 4 is a spill rule. And that can also be confusing if -- if you're not aware that you have to specifically look within Water Quality's stuff to do the -- to address your spill, you don't know where to go. And what ends up is you call the main office in a panic, and you're not really sure where to look for what's expected of you, and then a person has to walk you through it, where hopefully, if we put this in a more centralized location and make it apply to all the divisions, it would be easier for folks to use. So that's our proposal right now.
Please note that none of these proposals are set in stone. The report hasn't been sent to Governor Mead. So, potentially, we could change some details here and there. But this is what we've proposed so far.
So most of the changes -- I'm going to discuss

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a little bit more in detail. We're looking at stuff for 2014 into early 2015. Part of our plan goes further out. But we're just going to -- the further out you go, obviously, you're aware that our plans change, and it gets harder to forecast those. But we have a very good idea of what we'd like to do over the coming year.
Part of our proposal, since we're in progress with 15 and 25, we stated that we're currently working on repealing 15 because we don't -- we don't need the majority of it. And we were already planning to repeal that chapter, with the exception of the land application of septage. So the chapters that we discussed today are technically covered under the plan. So we will not be presenting to EQC in January of 2014. So we'll be revising our time line for that.
We have a UIC Class 6 carbon sequestration chapter that has been in draft phase over the last couple of years. And that was put on hold while we participated in our work group. We wanted to get some feedback before we finalized the draft to bring it to you. We have formatting to do, but the draft is largely finished. So we're anticipating to present it to you at the fourth quarter meeting if the schedules line up. We really need to meet on that chapter no earlier than December. And Solid and Hazardous Waste is trying to meet that landfill

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rule where they're doing the closure of the smaller landfills. They need it sooner. So, if we can line those two up, then we'll be okay.
CHAIRMAN BEDESSEM: I think they mentioned the first week in December.
MS. JOHNSON: Yeah. So, if it goes any later than that, it can be a challenge for them. Any earlier than that is a challenge for us. But we're willing to let them go ahead because we don't have a statutory time frame.
MS. CAHN: So you might be third quarter.
MS. JOHNSON: We might be. So just be prepared. If you don't see that in your package, it's because the timing didn't line up properly.

Here's the UIC consolidation that I mentioned briefly. The plan is not to substantially change the regulatory requirements of those chapters. The regulatory requirements are not the problem. The problem is that we have the same set of definitions, and there are pages of them, the same authority and objective, and we're restating it over and over.

Additionally, some of the subsections are the same. Like the requirements for your well class will be the same. But each class has its own chapter. So, if we consolidate them into one, we would consolidate them into

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Chapter 9. We would repeal the other chapters, and we would eliminate all those duplications of sections and duplications of definitions.

We think that at this point that should be fairly straightforward work, and we would like to present it to you at the first quarter 2014 meeting, although that is subject to changing. If we find that there are some subtleties that we didn't catch during our analysis, that would push that out.

We also have some easy consolidations. Chapter 2 is our WYPDES permitting, and Chapter 6 is a Colorado Basin standards rule. It's very short. It's only two pages. It's still an active rule, but we felt like it would be more appropriately served to be in the WYPDES rule.

We also have our water reuse chapter. We feel like if we put that back in Chapter 11 -- that's our wastewater chapter -- we felt like that would be a better place for that to go. It would eliminate some of the duplicate definitions. And Chapter 11 is already a wastewater chapter. 21 is reuse of that wastewater. And these -- these two consolidations would be the middle part of the year at the second quarter meeting at this point.

Our targeted revisions would start towards the

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end of the year. This is where the heavy lifting is. Chapter 12 is our public water rule. And we have not began drafting the revision yet. It's going to be a pretty substantial revision. We haven't really done much to it since '84. And we know that we're going to have a lot of revisions, and we're going to need a lot of stakeholder input to get it right. So the soonest we feel that that would be appropriate to present to you will be at the end of next year, so a year from now.

And that particular chapter we feel would be a good candidate for incorporation by reference, or as Administrator Edwards discussed earlier, rule by reference, where that rule was written based on the ten-state standards for waterworks back in 1984. And we have the ability to incorporate by reference those ten-state standards. They very concisely state what's expected of public water design. And we feel like we could save some pages and more efficiently state what's expected of those design standards if we did an incorporation by reference.

Just to give you an idea of why we think incorporation by reference is the way to go, it allows us to benefit from existing expensive technical, industrial and business expertise that's available in the private sector. So we don't have to reinvent the wheel. They've

already invented a great, great wheel. We align our regulatory requirements with industry best practices, and it reduces noncompliance. It makes it easier and less expensive to enforce our regulations.

So these ten states and states and counties all over the nation already use these standards. They've already vetted them and worked out the bugs. It makes it easier for us to regulate standards that are bug-free. And we feel that that's a good way to go. And basically, that came from the administrative conference of the United States. They explained why they thought IBR was the way for states to go. And it makes a lot of sense for us, especially under this current expectation.

So that's where we're expecting to go in 2014. Do you have any questions? Again, our final report hasn't been sent to the governor's office yet. So, if for some reason we're asked to revise our time line or there's a detail that has changed, we would brief you at your next advisory board meeting so you kind of know what to expect.

But as far as Water Quality Division is concerned, we'll probably keep you busy on a quarterly basis at least over the next year. So that's what we're looking at.

CHAIRMAN BEDESSEM: Sounds like it's going to be the same as Solid and Hazardous Waste.

MS. JOHNSON: Exactly.

MS. CAHN: Cal is wondering what is he doing on this board?

CHAIRMAN BEDESSEM: Well, I appreciate very much that update. I would assume, then, that you will be sending me a Doodle poll?

MS. JOHNSON: Yes.

CHAIRMAN BEDESSEM: And we discussed perhaps that meeting being in Cheyenne.

MS. JOHNSON: Okay.

MS. CAHN: And I'm willing to go to Laramie. Since we have two board members in Laramie, we could do Laramie or Cheyenne.

MS. JOHNSON: Either one.

MS. CAHN: I know Laramie is a little less driving for me. It's not that far for you guys.

MR. STRONG: That's a long 45-minute drive.

MS. CAHN: Well, I feel really sorry for you.

CHAIRMAN BEDESSEM: It depends on what venue.

MS. JOHNSON: It depends on what venue. And we're getting close to the end of the semester. And I'm not sure if larger meeting spaces get filled up at that point. I'll have to work on that, and I'll definitely forward that information on to Administrator Fredricks.

CHAIRMAN BEDESSEM: Might do it in Cheyenne, because it might be easier to do a summer meeting in Laramie at some point because of the availability of rooms. But in any event --

MS. CAHN: That's fine. Really, by the time I'm driving all the way across the state, what's

another 45 minutes?
CHAIRMAN BEDESSEM: And then we'll go back to kind of our Casper meetings.
MS. JOHNSON: For like the March one?
MS. CAHN: Or we can switch them and do Casper in December, and March could be in Laramie. So whatever works. And I'm willing to go across the state, since you guys just did it.
CHAIRMAN BEDESSEM: We haven't done it for quite some time, so that's fine.
Well, thank you for all the work that you put into this today. There was a lot to digest. And we appreciate your patience going over all our questions and comments and concerns.
MR. STRONG: And we absolutely appreciate

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your comments and concerns. That makes the regulation better, and that's our goal.
MS. CAHN: And thank you for driving across the state.
MR. STRONG: The driving across the state -- it's driving back that's the hard part.
CHAIRMAN BEDESSEM: The Water and Waste Advisory Board third quarter meeting is adjourned.
(Hearing proceedings concluded 4:15 p.m., September 19, 2013.)

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C E R T I F I C A T E

I, RANDY A. HATLESTAD, a Registered Merit Reporter, do hereby certify that I reported by machine shorthand the proceedings contained herein constituting a full, true and correct transcript.

Dated this 14th day of October, 2013.

_____
RANDY A. HATLESTAD
Registered Merit Reporter