1	WYOMING WATER AND WASTE ADVISORY BOARD
2	
3	
4	
5	RE: WATER QUALITY DIVISION: RULEMAKING WQRR CHAPTER 24
6	
7	TRANSCRIPT OF MEETING PROCEEDINGS
9	Pursuant to notice duly given to all parties
10	in interest, this matter came on for meeting
11	on the 25th day of June, 2019, at the hour of
12	1:02 p.m., at the Oil and Gas Commission, 2211 King
13	Boulevard, Casper, Wyoming before the Wyoming Water and
14	Waste Advisory Board. Ms. Marjorie Bedessem, Chairwoman,
15	presiding, with Mr. Brian Deurloo and Mr. Alan Kirkbride
16	in attendance.
17	Mr. Kevin Frederick, Water Quality
18	Administrator; Ms. Lily Barkau, Groundwater Section
19	Manager; and Ms. Gina Thompson, Water Quality Division,
20	were also in attendance.
21	
22	
23	
24	
25	

25

1	I N D E X	
2		PAGE
3	WATER QUALITY CHAPTER 24	3
4 5	MOTIONS:	
6	Motion Ruling	20 20
7		
8		
9		
10		
11 12		
13		
14		
15		
16		
17		
18		
19		
20 21		
22		
23		
24		

1	PROCEEDINGS
2	(Meeting proceedings reconvened
3	1:02 p.m., June 25, 2019.)
4	CHAIRMAN BEDESSEM: We are now reconvening
5	the second quarter Water and Waste Advisory Board. And
6	we're going to start off with the presentation of Chapter
7	24 for the Water Quality Division.
8	Turn it over to you.
9	MR. FREDERICK: Good afternoon, Madam
10	Chair, Members of the Board. Kevin Frederick, Water
11	Quality Division Administrator. And with me today is
12	Lily Barkau, who is the Groundwater Section Manager, as I
13	introduced her earlier this morning.
14	So before you this afternoon we have some
15	proposed revisions to Chapter 24 Water Rules and
16	Regulations, which are essentially the permitting rules and
17	regulations for Class VI underground injection control
18	wells. Class VI wells, as you may recall, are those that
19	are used to inject CO2 for carbon sequestration.
20	This is probably the third time you've seen these
21	rules. Initially they were drafted based upon a proposed
22	federal rule in the Underground Injection Control Program
23	under the Safe Drinking Water Act. And as you know, the
24	Underground Injection Control Program is a federally
25	delegated program under the rules and regulations of EPA

4

- 1 through the Safe Drinking Water Act.
- 2 And the initial Class VI proposed rule by EPA was
- 3 out for comment for a period of time. And based upon the
- 4 comments that were received, EPA developed a final rule.
- 5 But the period of time between their initial proposed rule
- 6 and their final rule was very long. And Wyoming, as you my
- 7 recall, was very active in creating statutory laws
- 8 beginning in 2008 to help facilitate carbon capture and
- 9 storage or geologic sequestration. In fact, the State of
- 10 Wyoming was perhaps the national leader, well ahead of most
- 11 states, in constructing that legal system that would begin
- 12 to facilitate carbon capture and storage here in Wyoming,
- 13 recognizing that at some point in time the coal industry in
- 14 Wyoming may need to have that ability for carbon capture
- 15 for two reasons.
- 16 First of all, to help facilitate enhanced oil
- 17 recovery in the State's older oil fields where CO2 is used
- 18 as an injectate to help mobilize relatively immobile
- 19 hydrocarbons towards production wells. And as you know,
- 20 that's going on today out at Salt Creek field, when
- 21 Anadarko took over the field up there and essentially
- 22 transitioned from a water flood-type recovery system to a
- 23 CO2. So it's an important asset to be used for those
- 24 purposes.
- 25 And then also recognizing, I think, how EPA at

- 1 that time had been developing its regulatory framework for
- 2 air emissions from coal-fired power plants in particular.
- 3 I think the legislature understood that there seemed to be
- 4 a trend of moving more and more towards at the federal
- 5 level, controlling CO2 emissions from coal-fired power
- 6 plants, and the opportunity, then, to perhaps dispose of
- 7 that type of a flue gas that contains CO2 could actually be
- 8 better handled through underground injection and disposal
- 9 that way. So we had essentially disposal purposes, and
- 10 then we also had enhanced oil purposes for carbon
- 11 sequestration.
- 12 So that prompted DEQ to proceed with developing
- 13 its own rules and regulations so we would be able to
- 14 implement the program, take primacy for the Class VI
- 15 program. Just like we have for Class I wells, Class II
- 16 wells, Class III wells and Class V wells, where the State
- 17 of Wyoming has been delegated the authority to implement
- 18 those programs here in Wyoming, and so we wanted to follow
- 19 up with Class VI.
- 20 So our rule was essentially based upon a proposed
- 21 rule at the time. And, of course, when the final EPA rule
- 22 came out, there were quite a few changes from the proposed
- 23 rule. So we had taken our initial draft, based upon EPA's
- 24 proposed rule, through the rule development process before
- 25 the advisory board, through the EQC, governor's signature,

- 1 et cetera. And then EPA came out with their final rule.
- 2 It looked different. We had to make some changes to our
- 3 rule. So we did that to be consistent with -- at least
- 4 what we thought to be consistent with the final federal
- 5 rule, and brought that back before the advisory board and
- 6 before the EQC again. And, again, the governor signed off
- 7 on those modifications.
- 8 And shortly thereafter we began discussions with
- 9 EPA about developing an application that we could submit to
- 10 EPA to obtain primacy for the Class VI wells. And part of
- 11 the process is they -- they -- they do a cross-walk
- 12 that's -- what's called a cross-walk where they compare
- 13 line by line what the federal rule says compared to
- 14 essentially what State of Wyoming's rule says, and they'll
- 15 look to see if they're consistent. And they also look to
- 16 see if our rules and regulations are as stringent as the
- 17 federal rules and regulations. That's one of the
- 18 requirements for being delegated the primacy. We have to
- 19 be as stringent as the feds.
- 20 So they went through that effort initially, and
- 21 we began making some -- what we saw were, again, some
- 22 modifications to our rule that EPA felt we needed to make
- 23 in order to be consistent and as stringent as they were.
- 24 And Lily and Gina have been working with EPA pretty closely
- 25 over the last couple years, probably, because it's been a

- 1 slow process in reviewing those comments that EPA's
- 2 provided us on how they feel our rule needs to be changed,
- 3 and we wanted to, you know, make sure that we clearly
- 4 understood what was missing and why they felt we needed to
- 5 make these changes, et cetera, et cetera.
- 6 And quite a bit of back and forth with the folks
- 7 in Region 8 EPA over the past couple years. They did a
- 8 pretty good job initially in trying to put to go a cross-
- 9 walk for us. They gave that to us. Then they kind of
- 10 shelved it, I think, down to Region 8 for a period of time.
- 11 And we had to continue to prompt them and remind them that
- 12 we were anxious to get our rules finalized because it's a
- 13 key element of the primacy application. We have all the
- 14 other pieces, I believe, in order, and just simply need to
- 15 get our final rule out so that it would pass muster with
- 16 the EPA.
- 17 And despite the fact that Lily had informed them
- 18 several times that we needed to have their final comments
- 19 on the draft rule that we're bringing to you today, it
- 20 seems like what we thought were their final comments we
- 21 would later learn, well, they had -- they had a couple more
- 22 that they wanted us to take a look at. So it's been
- 23 forever just trying to get to the finish line with EPA.
- 24 And I think we're finally at the point where we've
- 25 convinced them that, you know, this is pretty much the end

- of the line here. We've got to move on. Give us your
- 2 final comments so we can get our application down to you
- 3 folks.
- 4 So I think we're about there. I believe we had a
- 5 call as -- or as late as yesterday, if I'm not mistaken,
- 6 where they raised their hand one more time and asked us to
- 7 make one more little rule change before we talked to you
- 8 all. So it's been a little bit of a protracted process, to
- 9 say the least.
- 10 So, nonetheless, we think we're there and are
- 11 ready to hopefully nail this down once and for all so we
- 12 can all move on and we can get our primacy package through
- 13 EPA and begin to position ourselves so that when a point in
- 14 time comes -- and I suspect it'd probably be as soon as,
- 15 perhaps, a couple three years, based upon some interests of
- 16 the School of Energy Resources over at the University of
- 17 Wyoming who are interested in looking at a test well for
- 18 carbon capture, geologic sequestration, I believe in about
- 19 two years, if I'm not mistaken. Hopefully by then, DEQ
- 20 will be the permitting agency for that, rather than EPA.
- 21 Hopefully we'll have our primacy and authority, and we'll
- 22 be all set. So that's sort of our primary goal.
- 23 So to briefly summarize, I think what we have
- 24 here before you today are the final changes that EPA's
- 25 asked us to make to the rules and regulations so that we're

- 1 consistent with the federal rule, and then so that we're
- 2 stringent as the federal rule, and I think we're about
- 3 there.
- 4 And I'll ask Lily, I guess, if there's anything
- 5 else that we want to mention about the rule. I don't think
- 6 we added anything other than what EPA was looking for.
- 7 MS. BARKOU: That would be correct.
- 8 It's -- EPA provided a final set of comments during the
- 9 public comment period. There were four comments that came
- 10 in. Most of them were -- or all of them were primarily
- 11 focused on clarification.
- 12 So we submitted our primacy package to EPA
- January 31st of 2018. And since then we've been working
- 14 through -- through making sure all those components are
- 15 complete, being that the rule is the last step that they
- 16 would like addressed as part of that primacy package.
- So for the comments, you have the green
- 18 strike/underline packet that will incorporate the changes
- 19 to address EPA's comments that were submitted as the
- 20 difference between the original packet that was sent to you
- 21 in May. And I will just go through those as to what their
- 22 comments were, along with how we addressed their comments.
- 23 As Administrator Frederick had indicated, we
- 24 spoke with EPA yesterday. We have provided a response to
- 25 the comments to them to review, and they just needed one

- 1 final clarification. But they have seen the responses to
- 2 the comments and have no further comments.
- 3 So their first comment pertains to Section 4. It
- 4 will be line 590 in your green strikeout and underline
- 5 packet. They wanted a minor modification or clarification
- 6 that according to the Code of Federal Regulations, changes
- 7 in construction plans during construction may be approved
- 8 by the Administrator as minor modifications. They wanted
- 9 just a little bit more clarification that it was only
- 10 during construction plans and during construction, but at
- 11 no other times could that be considered a minor
- 12 modification.
- 13 So we added a cross-reference for consistency
- 14 with 40 CFR 144.52, where we reference an underline -- make
- 15 sure I do have that, because we do reference minor
- 16 modifications later within the permit. So it now reads
- 17 change construction requirements approved by the
- 18 Administrator pursuant to subparagraphs (c)(i)(BB)(I)
- 19 through (III) of this section provided that any such
- 20 alteration may comply with requirements of this chapter.
- 21 That addressed their concern regarding minor modifications
- 22 and only changes during the construction of the well.
- 23 CHAIRMAN BEDESSEM: Excuse me. What line
- 24 is that referencing? In other words, where is subparagraph
- 25 (c)(i)(BB)(I)?

- 1 BOARD MEMBER DEURLOO: I thought the same
- 2 thing.
- 3 CHAIRMAN BEDESSEM: Yeah. Just kind of
- 4 hard to --
- 5 MS. BARKAU: Yeah, let me --
- 6 MS. THOMPSON: Madam Chair, it is line 878
- 7 through 894 on page 24-20.
- 8 CHAIRMAN BEDESSEM: Thank you. Thank you.
- 9 That's what you needed to see.
- 10 MS. BARKOU: Their second comment was
- 11 another one in regards to clarification, that they wanted
- 12 the clarification in regards to new and reissued permits, a
- 13 Chapter -- or a Class VI permit does not expire, so,
- 14 therefore, there is no reissuance, unless it's been
- 15 terminated or modified by the administrator. Therefore,
- 16 line 972, we added passage for consistency. We changed it
- 17 to -- we removed the wording of "or reissued" from that
- 18 line. Okay?
- 19 CHAIRMAN BEDESSEM: Okay.
- 20 MS. BARKOU: All right. Their next comment
- 21 was in Section 19. It will be on line 1410. Or, actually,
- 22 no. It was Section 6. My apologies. Section 6 is in
- 23 regards to underground source of drinking water.
- We added a paragraph at 1410 to better explain --
- 25 provide clarification in regards to water quality

- 1 monitoring. This was a passage that was left out
- 2 previously, I take it, from their draft versus their final
- 3 rule, so we were just incorporating that passage verbatim
- 4 from the CFR.
- 5 CHAIRMAN BEDESSEM: So is there a typo,
- 6 though, or something? Because the -- line 1416, where it
- 7 says "...or the permit may be terminated under with Section
- 8 4..." Something doesn't seem right.
- 9 MS. THOMPSON: So, Madam Chair, I would
- 10 probably suggest removing "with." So it would read "may be
- 11 needed under Section 4."
- 12 CHAIRMAN BEDESSEM: Yeah, just an extra
- 13 word.
- 14 MS. THOMPSON: I'm not sure how that
- 15 happened, but I agree that that's not reading properly.
- 16 CHAIRMAN BEDESSEM: Okay. Thank you.
- 17 MS. BARKOU: Yes. Okay. Their last
- 18 comment was in regards to Section 19, which starts
- 19 particular comment on line 2711. These were all in regards
- 20 to financial responsibility. So in 2711 we add a new
- 21 passage regarding monitoring and testing requirements to
- 22 ensure coverage of all phases of the geologic sequestration
- 23 project, and renumbered remaining paragraphs.
- Actually, it starts on line 2706, where we added
- 25 the line "Monitoring and testing, including the

- 1 requirements of Section 14 of this chapter." And then
- 2 renumbered the rest of the remaining numbers.
- 3 This addresses the impossible -- the possible
- 4 endangerment of USDWs. Line 2721, we removed that section
- 5 and changed it to incorporate 20 -- what starts at 2724 to
- 6 discuss what means to demonstrate financial -- financial
- 7 responsibility.
- 8 This was in order to clarify the differences
- 9 within the chapter of where we require a cost estimate and
- 10 then what is required to maintain financial responsibility.
- 11 And line 2781, again, this is where the clarification comes
- 12 in of how they are to demonstrate and maintain financial
- 13 responsibility compared to the section above, which was
- 14 strictly for cost estimates. So that text was added.
- And then 2784 we identified the specific
- 16 instruments used -- that are to be used as part of showing
- 17 financial demonstration.
- 18 And then 2805, the line was added in regards to
- 19 "The qualifying instruments must be sufficient to cover the
- 20 cost of the estimate required..." so that we could,
- 21 therefore, meet the various portions of financial
- 22 responsibility from the CFR. And that, therefore,
- 23 addressed EPA's comments.
- We did make two additional minor changes. Line
- 25 1276, we updated a cross-reference due to the renumbering

- 1 of the chapter.
- 2 And then 13 -- line 1387, we removed a redundant
- 3 word. There was a duplicate word "for" within that line.
- 4 So we removed one of those words.
- 5 That addresses all the changes that we made from
- 6 the original document that was submitted to you in May.
- 7 MR. FREDERICK: Madam Chair, we did have a
- 8 couple suggested revisions based upon verbal comments that
- 9 we received from the Oil and Gas Conservation Commission.
- 10 They were kind enough to take a look at our draft rule.
- 11 And if I could, I'd like to just step you through there
- 12 real quickly.
- So beginning on --
- 14 CHAIRMAN BEDESSEM: So which copy are we
- 15 looking at?
- MR. FREDERICK: What?
- 17 CHAIRMAN BEDESSEM: Which copy are you
- 18 going to reference the lines on?
- MR. FREDERICK: I want to see if I can work
- 20 from the green copy here.
- 21 CHAIRMAN BEDESSEM: Okay.
- 22 MR. FREDERICK: So looking at the green
- 23 copy, line 352, and also looking at line 358. So the
- 24 comment from the Oil and Gas Commission was essentially,
- 25 you know, in 352, we're saying about the same thing in 358.

- 1 So they aren't exactly worded the same way, but they're
- 2 essentially referring to the same set of permittees. And
- 3 the Oil and Gas Commission suggested that why don't we just
- 4 strike the language on 352 and 353 and replace it with that
- 5 new language on 358.
- 6 CHAIRMAN BEDESSEM: I guess I'm confused in
- 7 that will there not -- no longer be an item (c)?
- 8 MR. FREDERICK: So the new language would
- 9 read on 352 "For owners and/or operators of Class II
- operations described in WS 35-113-13(c), the following
- 11 shall apply." And then we would go into the language
- 12 beginning on line 358 at the end.
- 13 CHAIRMAN BEDESSEM: So you no longer need
- 14 "seeking to convert the well to a Class VI well"?
- 15 MR. FREDERICK: So the statute that's
- 16 referenced refers very specifically to the process of
- 17 converting Class II to Class I wells and the requirements
- 18 associated with it. It's essentially captured in the
- 19 existing language on 352. And I think the idea was rather
- 20 than trying to paraphrase the substitute like we've done in
- 21 352, let's just reference it directly so that it is clear.
- 22 And in the event the statute changes, the regulation at
- 23 least would stay current with whatever changes would be
- 24 made, not that we expect any.
- 25 CHAIRMAN BEDESSEM: So are you saying that

- 1 item (c) would say for owners and operators permitted Class
- 2 II injection wells, the following shall apply? That's what
- 3 (c) would then say? Oh, no. It says for owners and
- 4 operators of Class II operations described in Wyoming
- 5 Statute 35-11-313(c) the following shall apply.
- 6 MR. FREDERICK: Yes.
- 7 CHAIRMAN BEDESSEM: Sorry.
- 8 And then the second part in (i) would start off
- 9 how? You wouldn't repeat that same phrase. You would say
- "The Director's determination of primary purpose..."?
- 11 Gotcha. Okay.
- 12 MR. FREDERICK: Yes. That would remain the
- 13 same. As is.
- 14 CHAIRMAN BEDESSEM: You wouldn't have that
- 15 phrase again. You'll just start with "The Director's
- 16 determination of primary purpose"?
- MR. FREDERICK: Yeah, the statute that's
- 18 referenced speaks to the Director's determination.
- 19 CHAIRMAN BEDESSEM: Okay. Thank you.
- 20 MR. FREDERICK: Bear with me, Madam Chair.
- 21 I'm trying to cross-reference these two rules real quick.
- 22 BOARD MEMBER DEURLOO: Do you want to use
- 23 an older -- different copy? Would that be easier for you,
- 24 Kevin?
- MR. FREDERICK: No.

24

1 BOARD MEMBER DEURLOO: Okay. 2 MR. FREDERICK: I've got -- thank you. 3 And that's all I have, Madam Chair. CHAIRMAN BEDESSEM: (Laughter.) Sorry. MR. FREDERICK: The rest of them have 5 already been addressed by --6 7 CHAIRMAN BEDESSEM: There was a big buildup 8 to that. MR. FRYE: Just wanted to be thorough. 9 10 CHAIRMAN BEDESSEM: Thank you for checking. 11 Any questions from board members or -- is that the conclusion of your presentation? 12 MS. BARKAU: That concludes our 13 presentation, and we will request that our rules be 14 15 approved and recommended to move to the EQC. CHAIRMAN BEDESSEM: Any questions from 16 17 board members? 18 BOARD MEMBER DEURLOO: No, ma'am. CHAIRMAN BEDESSEM: So, again, thank you 19 for giving us your SOPR. That was really helpful in 20 figuring out -- it pretty well lined out every single item 21 22 of note within the chapter that was being changed. So appreciate it. 23

Wyoming Reporting Service, Inc. 1.800.444.2826

your SOPR. If you can just fix a couple of things for me.

Oddly enough, I only have a couple comments on

- 1 This may border on anal, but instead of grammar errors, can
- 2 you have grammatical errors? Okay. So wherever you search
- 3 for grammar, switch to grammatical.
- 4 And just -- and the capitalization on page 1 on
- 5 the last two lines.
- MS. THOMPSON: I --
- 7 CHAIRMAN BEDESSEM: Can you capture that in
- 8 the notes? Gasp. Sigh. However --
- 9 MS. THOMPSON: I don't know how that keeps
- 10 appearing. I've changed it -- I feel I've changed it more
- 11 times than I can count, but here it is again.
- 12 CHAIRMAN BEDESSEM: Things like that just
- 13 occur.
- MS. THOMPSON: Yes.
- 15 CHAIRMAN BEDESSEM: Just like "act" in the
- 16 second paragraph, last line. It's capitalized in another
- 17 SOPR, but not in this one, for some reason. But, anyway,
- 18 it was great -- great summation of all the changes. And it
- 19 doesn't -- other than the Oil and Gas Commission final
- 20 changes and EPA's changes, you've not received any comments
- 21 on this?
- 22 MS. THOMPSON: No, ma'am. The Wyoming
- 23 Geological Survey did submit a comment.
- 24 CHAIRMAN BEDESSEM: It was just support.
- 25 MS. THOMPSON: They were supportive, but

- 1 they had no additional recommendations.
- 2 So the three comments that we discussed today are
- 3 the only comments that we received.
- 4 BOARD MEMBER DEURLOO: From the EPA.
- 5 MS. THOMPSON: From the EPA and Oil and Gas
- 6 Commission and Geological Survey.
- 7 CHAIRMAN BEDESSEM: Uh-huh. And most of
- 8 those -- the other ones were simplifications. And thank
- 9 you for sending like the third supportive comment through
- 10 the email earlier this week -- last week.
- 11 So I don't -- all the changes seem appropriate,
- 12 based on what you're trying to do. And I don't have any
- 13 comments on any of your changes within the text of the
- 14 chapter.
- 15 And I remember when you first were working on
- 16 carbon sequestration, all the concerns about being way
- 17 ahead of the game, how many changes, things were going to
- 18 have to happen afterwards. And there's just a lot of
- 19 patience through this time period. And bravo.
- 20 So discussion by the Board?
- BOARD MEMBER DEURLOO: Huh-uh.
- 22 CHAIRMAN BEDESSEM: I would entertain a
- 23 motion?
- 24 BOARD MEMBER DEURLOO: Do you want to go,
- 25 Alan, or you want me to?

- 1 CHAIRMAN BEDESSEM: He's trying to say it
- 2 is your turn.
- BOARD MEMBER KIRKBRIDE: It is my turn.
- 4 Just so I've got it all, I move we approve the rule changes
- 5 and upgrade to the Class I injection well facilities --
- 6 CHAIRMAN BEDESSEM: Class VI.
- 7 BOARD MEMBER KIRKBRIDE: Class VI. Yes,
- 8 yes, yes. Underground Injection Control Program.
- 9 CHAIRMAN BEDESSEM: And forward to EQC.
- 10 BOARD MEMBER KIRKBRIDE: And forward to the
- 11 EQC.
- 12 BOARD MEMBER DEURLOO: I second that
- 13 motion.
- 14 CHAIRMAN BEDESSEM: All those in favor?
- BOARD MEMBER KIRKBRIDE: Aye.
- BOARD MEMBER DEURLOO: Aye.
- 17 CHAIRMAN BEDESSEM: Aye.
- 18 No opposed, no abstentions. Motion passes.
- 19 Yes.
- 20 MS. THOMPSON: We just have a couple of
- 21 other small tidying-up things, but if you wanted to adjourn
- 22 the public part, so we can discuss --
- 23 CHAIRMAN BEDESSEM: Logistics.
- 24 MS. THOMPSON: -- logistics and the updates
- 25 to the memo that we had sent you where we were going to

1	talk about how to contact you and things like that.
2	CHAIRMAN BEDESSEM: Sure. We can certainly
3	do that after we adjourn. So congratulations on moving
4	your rule forward.
5	MS. BARKAU: Thank you.
6	MR. FREDERICK: Thank you.
7	CHAIRMAN BEDESSEM: Thank you. We are now
8	adjourning the second quarter Water and Waste Advisory
9	Board meeting. Thank you.
10	(Hearing proceedings concluded
11	1:45 p.m. June 25, 2019.)
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

1	CERTIFICATE
2	
3	I, KATHY J. KENDRICK, a Registered Professional
4	Reporter, do hereby certify that I reported by machine
5	shorthand the foregoing proceedings contained herein,
6	constituting a full, true and correct transcript.
7	Dated this 15th day of July, 2019.
8	
9	a. ADTCA
10	1/1/ 1/1/ 1 Section 1/1/1/ 1
11	KATHY J. KENDRICK
12	Registered Professional Reporter
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	