

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT BOARD

No. EIB 21-27(R)

IN THE MATTER OF PROPOSED NEW REGULATION,
20.2.50 NMAC - Oil and Gas Sector -
Ozone Precursor Pollutants

TRANSCRIPT OF PROCEEDINGS

BE IT REMEMBERED that on the 27th day of
September, 2021, this matter came on for hearing before
FELICIA ORTH, Hearing Officer, virtually through Cisco
Webex Meetings video conferencing, at the hour of 9:00
a.m.

Volume 6

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E X H I B I T S

ADMITTED

NOTE: No exhibits are attached physically to this transcript. They can be found online at www.env.nm.gov/opf/docketed-matters/

GAS COMPRESSOR ASSOCIATION:

**GCA 35. Proposed amendment to
20..2.50.113.C(4)(i)**

1799

1 HEARING OFFICER ORTH: Let's prepare to begin
2 this morning.

3 Good morning.

4 My name is Felicia Orth. I'm a Hearing
5 Officer appointed by the Environmental Improvement Board
6 to conduct a hearing in EIB 21-27. This is a rulemaking
7 on ozone precursors.

8 We're on day six of the hearing. We have
9 three public comment sessions every day at 9:00, 1:00
10 and 5:00. This is the nine o'clock public comment
11 session.

12 The folks who reached out to the Board
13 administrator to request an opportunity to speak this
14 morning are David Hampton, David Coss, Freyr Amarie and
15 Beata Tsosie-Pena. I'll call on you in that order.

16 In the event you are on the platform to offer
17 public comment and did not send an e-mail, that's fine.
18 I will take your comment. Please reach out through the
19 chat. Chat is enabled for everyone.

20 Public comment is, like all testimony in this
21 proceeding, taken under oath and is limited to five
22 minutes and is taken by audio, not video. In the event
23 what you have to say would exceed five minutes, please
24 submit your entire comment to the Board administrator,
25 Pam Jones. It will become part of the record just as

1 though you had spoken it.

2 I'll begin with Mr. Hampton.

3 Mr. Hampton, I'm unmuting you.

4 Can you hear me?

5 MR. HAMPTON: I can. Thank you.

6 HEARING OFFICER ORTH: Thank you. Your voice
7 is coming through nicely.

8 If you would, please spell your name.

9 MR. HAMPTON: David Hampton, D-A-V-I-D
10 H-A-M-P-T-O-N.

11 HEARING OFFICER ORTH: Thank you.

12 And raise your right hand.

13 Do you swear or affirm to tell the truth?

14 MR. HAMPTON: I do.

15 HEARING OFFICER ORTH: Thank you.

16 DAVID HAMPTON

17 having been first duly sworn or affirmed, gave
18 public comment as follows:

19 PUBLIC COMMENT

20 HEARING OFFICER ORTH: I'll start your five
21 minutes now.

22 MR. HAMPTON: Good morning.

23 My name is David Hampton. I live in White
24 Rock, New Mexico, in Los Alamos County.

25 While we all agree that appropriate safeguards

1 should be put in place to limit ground level ozone
2 pollution, we must be careful not to harm the oil and
3 gas industry which provides so many jobs and generates
4 so much revenue for our state.

5 The currently proposed rule is excessive in
6 its application and must be revisited and revised.
7 There is no reason for New Mexico to apply standards
8 that are among the most stringent, if not the most
9 stringent in the nation.

10 I'd like to thank the Environment Improvement
11 Board for your service to our state and for allowing me
12 to speak today.

13 Have a good day.

14 Thank you.

15 HEARING OFFICER ORTH: Thank you, Mr. Hampton.

16 I'll move now to Mr. Coss.

17 I am not seeing Mr. Coss by name, but I do
18 have a call-in user.

19 Call-in User 3, I'm unmuting you.

20 Hello, Call-in User 3. Can you hear me?

21 MS. AMARIE: Hello?

22 HEARING OFFICER ORTH: All right.

23 Oh. Hello. Please identify yourself.

24 Who is this?

25 MS. AMARIE: Hi. This is Freyr Amarie.

1 HEARING OFFICER ORTH: Oh, hello. Good
2 morning.

3 If you would please spell your name.

4 MS. AMARIE: It is F-R-E-Y-R A-M-A-R-I-E.

5 HEARING OFFICER ORTH: Thank you.

6 And raise your right hand.

7 Do you swear or affirm to tell the truth?

8 MS. AMARIE: Yes, I do.

9 HEARING OFFICER ORTH: Thank you.

10 FREYR AMARIE

11 having been first duly sworn or affirmed, gave
12 public comment as follows:

13 PUBLIC COMMENT

14 HEARING OFFICER ORTH: I'll start your five
15 minutes now.

16 MS. AMARIE: Hello.

17 My name is Freyr Amarie. I'm a resident of
18 Pojoaque Valley.

19 Thank you to the Environmental Improvement
20 Board for this opportunity to comment.

21 I am concerned for the future of New Mexicans
22 as a teacher and community member who also works in the
23 outdoors. Access to clean air and water has a direct
24 impact on the lives, livelihoods and land-based values
25 that inform the many cultures and people that call this

1 state home.

2 I support Governor Michelle Lujan Grisham's
3 call for a nation-leading oil and gas pollution rule.
4 To achieve this goal, the Environmental Improvement
5 Board must strengthen the New Mexico Environment
6 Department's proposed ozone precursor rule to protect
7 everyone in our state, especially those living closest
8 to development and enforce them stringently. Rural
9 communities, tribal communities, children and elderly
10 are especially at risk.

11 Setting strong rule at the state level sets a
12 good bar for forthcoming federal methane rule that can
13 help protect New Mexicans from states like Texas whose
14 regulations are limited.

15 Besides the strongest rules, I ask the EIB to
16 make three critical improvements to the proposed rule to
17 protect communities and address major sources of
18 pollution.

19 First, strengthen requirements to cut
20 pollution from pneumatic controllers that are used in
21 oil and gas production. NMED should require companies
22 to inspect pneumatics for leaks and accelerate the
23 timeline to retrofit equipment with zero bleed or zero
24 emission pneumatic controllers.

25 Second, the final rule must be strengthened to

1 ensure New Mexicans incorporate leading -- New Mexico
2 incorporates leading approaches to address pollution
3 during well completions. It should require operators to
4 capture or combust emissions during completions,
5 including the initial flowback stage.

6 Third, it is critically important that leak --
7 the leak inspection program proposed by NMED in July be
8 adopted and that the final rule is strengthened to
9 protect frontline communities by requiring more frequent
10 inspections to find and fix leaks. Technology exists
11 today to control leaks, and operators need to be
12 accountable for the pollution they create.

13 Finally, I -- although I know these rules are
14 meant to reduce ground level smog and protect our
15 respiratory health, I also want to point out the
16 additional benefits of these rules to reducing methane,
17 which is a potent greenhouse gas, 84 more times powerful
18 than carbon dioxide in the near term. In fact, methane
19 pollution contributes to about 25 percent of global
20 warming we are experiencing today.

21 New Mexicans are already experiencing the
22 health impacts of these industries in addition to the
23 severe impacts of climate change, harming our health,
24 air, water, land and economy. Scientists, NASA and the
25 Department of Defense all agree that climate change is a

1 threat to our kids' future, and we can no longer ignore
2 the increasingly strong and severe weather. These
3 conditions put even more strain on all communities,
4 especially the historically marginalized communities I
5 mentioned above.

6 Please protect our climate and our health.

7 Thank you.

8 HEARING OFFICER ORTH: Thank you very much.

9 I'm looking for Mr. Coss and don't see him on
10 the platform.

11 And I'm looking for Ms. Pena, and I don't see
12 her on the platform.

13 I'd be happy to accept their comment in the
14 event they join us at one of the other public comment
15 sessions.

16 We'll turn, then, back to the technical case.

17 Let's see here.

18 Over the weekend, we had some correspondence
19 with -- among counsel around suggestions to
20 (unintelligible and/or inaudible) to streamline or --

21 THE REPORTER: Excuse me. I did not -- I
22 think you cut out, Ms. Orth.

23 HEARING OFFICER ORTH: I'm sorry.

24 I'm cutting out?

25 THE REPORTER: Yes. You did for me.

1 HEARING OFFICER ORTH: Okay.

2 In that case, what -- I'm not getting a
3 message that I am -- you know, have low bandwidth, but
4 I'm going to turn off my video. I won't leave my chair,
5 but I'm going to turn off my video.

6 All right. Please wave at me if I continue to
7 cut out.

8 All right. So over the weekend, counsel did
9 write with a couple of different suggestions for
10 streamlining the process.

11 One suggestion was to have the Board Members
12 question all of the witnesses on a particular topic
13 rather than each witness one at a time. That wouldn't
14 necessarily work for some of the bigger or more
15 controversial topics, but as to some of the -- some of
16 the smaller ones. So that was one suggestion. I would
17 certainly recommend that for your consideration.

18 Another -- let's see, what was another
19 suggestion. We had a Dropbox spreadsheet there with an
20 indication to sort of visually indicate where there was
21 any party with contrary testimony to the September 16
22 proposal, and some e-mails in which a couple of the
23 parties indicated really just how precise or limited
24 their objections were to any of the provisions in the
25 September 16 draft.

1 Having said that, we are definitely facing a
2 daunting challenge to finish this by Friday, and I think
3 we're going to have to have another serious discussion
4 at the end of the day today after we have found how far
5 we're able to get today.

6 Let me ask if any of the counsel would like to
7 address this topic. Just turn on your screen, please.

8 Ms. Katz.

9 MS. KATZ: Thank you, Madam Hearing Officer.

10 Good morning, Madam Chair, Members of the
11 Board.

12 So I think the general sense on some
13 suggestions is that, as Ms. Orth said -- stated, I think
14 there's a consensus that there's certain smaller topics,
15 so there's -- there's -- the larger topics are engines,
16 leak detection and repair, pneumatics, and storage
17 vessels.

18 For the other smaller topics, the suggestion
19 is that the parties all put on their testimony, and
20 then -- and the Board hold their questions until the
21 end, and then everybody -- all the witnesses can sit as
22 a panel for questions, and I think that will just make
23 things go more smoothly. And those are smaller topics
24 so it shouldn't interfere too much with your ability to,
25 you know, hear the information and retain it and have

1 your questions addressed.

2 But that way the Department can also finish
3 up, and you can hear from the Department again on
4 surrebuttal so that you're not asking questions of other
5 witnesses that might easily be answered by the
6 Department.

7 And then on the larger topics, not -- not
8 necessarily following that format, just because they're
9 so large, and to ask the Board to wait for the whole
10 thing to be done, to hold questions doesn't seem
11 effective.

12 But one -- one method would be to have --
13 which I think could apply to all topics, would be for
14 the parties to put all of their witness -- each party
15 put all their witnesses up, and then -- before there was
16 any cross, and so their panel -- they could sit as a
17 panel for cross-examination. And for the -- for those
18 larger topics, they would sit as -- then the party would
19 sit as a panel for the Board's questions.

20 So I know it's a little confusing, but those
21 are some ways to kind of consolidate and hopefully
22 streamline things a little bit.

23 That's about as far as we were able to get
24 between the parties, and we're hoping that, you know,
25 they're -- on some of the smaller topics, at least

1 there's, you know, a good amount of agreement that we
2 could get through them fairly quickly.

3 HEARING OFFICER ORTH: All right. Thank you,
4 Ms. Katz.

5 Any other counsel?

6 Ms. Fox.

7 MS. FOX: Thank you, Madam Hearing Officer.

8 Good morning, Madam Chair, Members of the
9 Board.

10 And we concur with what Ms. Katz and Ms. Orth
11 just stated and would just add as a larger topic that we
12 would like done separately is the completions proposal,
13 which is one of our four major proposals.

14 Thank you.

15 HEARING OFFICER ORTH: Thank you.

16 Mr. Hiser?

17 MR. HISER: Thank you, Madam Hearing Officer.

18 Yes. NMOGA is supportive of the approach, as
19 you know. And I'm not sure that we may not be able to
20 do engines and turbines in that same fashion. And I
21 believe that almost all the parties are aligned with
22 National Park Service having a slightly different
23 proposal.

24 HEARING OFFICER ORTH: All right. Thank you
25 for that.

1 Anyone else?

2 No.

3 All right. Ms. Katz, then, will you be
4 kicking off the testimony this morning?

5 MS. KATZ: Yes, Madam Hearing Officer.

6 So this -- we're on Topic 24, and this is
7 engines and turbines.

8 The Department calls Elizabeth Bisbey-Kuehn
9 and Brian Palmer.

10 ELIZABETH BISBEY-KUEHN and BRIAN PALMER

11 (Relating to Topic Order 24)

12 having been first duly sworn or affirmed, were
13 examined and testified as follows:

14 MS. KATZ: Before we go into the testimony, I
15 wanted to offer for Mr. Palmer to -- if the Board would
16 like, for Mr. Palmer to present just a sort of brief
17 discussion about ERG's cost estimates, how -- for each
18 section, how they came up with that, because I know
19 there's been some confusion around that.

20 And so we thought we might pick a sort of
21 straightforward one for illustration purposes, which is
22 the storage tanks cost estimates, and just briefly go
23 through that just to show the Board how those were done,
24 if you feel like that might be helpful.

25 And if other parties have an issue with that,

1 I mean, that's -- let me know, but it just seemed like
2 it could be useful for the Board before we're getting
3 into each of these sections, because were cost -- there
4 was a cost estimate done in connection with each of the
5 rule -- the substantive rule sections that we're now
6 getting into.

7 HEARING OFFICER ORTH: Does the Board support
8 that?

9 CHAIR SUINA: Good morning.

10 Yeah. Madam Hearing Officer, yeah, it looks
11 like the Board Members are thumbs up on that, and so I
12 appreciate the counsels getting together and trying to
13 figure out how we streamline this and get through all of
14 these topics, as well as hear all the -- all the
15 information. Appreciate that.

16 HEARING OFFICER ORTH: Thank you.

17 Ms. Katz, does someone need screen sharing?

18 MS. KATZ: Yes. Mr. Palmer needs screen
19 sharing, I believe.

20 HEARING OFFICER ORTH: All righty.

21 DIRECT EXAMINATION OF BRIAN PALMER

22 (Relating to ERG's cost estimates)

23 BY MS. KATZ:

24 MR. PALMER: I'll share my screen.

25 Thank you, all, very much.

1 Share. Okay.

2 So this is a typical cost spreadsheet that we
3 set up. The Department, we generated cost and emission
4 reduction spreadsheets for each of the equipment types
5 that are covered by the rule. And this is the one
6 for -- for storage tanks, and this is a sheet we call
7 cost factors, which sort of lays the groundwork for how
8 we estimated costs.

9 And this one I've tried to do a little
10 formatting to make it maybe a little easier for you all
11 to follow with different colors to try to match stuff
12 up. So this is not an official exhibit. Let me just
13 say that. But it's -- it's for --

14 HEARING OFFICER ORTH: Mr. Palmer --

15 MR. PALMER: -- purposes only.

16 HEARING OFFICER ORTH: -- can you make that
17 any larger?

18 MR. PALMER: I can.

19 HEARING OFFICER ORTH: Maybe by hitting the
20 full screen?

21 MR. PALMER: I can Zoom in. Whoops.

22 Can I do that? Is that better?

23 HEARING OFFICER ORTH: Yeah. That's better.

24 MR. PALMER: Okay. Let me just see here. I
25 just want to make sure everything is in here. Okay.

1 So what we do is we estimate both the capital
2 costs and the annual costs. And capital costs are
3 basically the cost of buying and building and installing
4 a control device. And then the annual costs are the
5 annualized capital costs, so that capital cost spread
6 out over the length of the equipment, plus other annual
7 costs that you'll have every year, that you can think of
8 as operating and maintenance costs, for example.

9 So this is an example for a combustor control,
10 and the cost estimate we had initially was for 2012
11 dollars. And I think this came out of the -- this one
12 came out of the EPA's control technology guidance
13 document. So these numbers were in 2012 dollars, and
14 they included the cost of the combustor, freight and
15 design, installing auto-ignitor, surveillance system, so
16 telemetry, for example. Then there's the cost of
17 installing the combustor. We also included cost for
18 retrofitting storage vessels.

19 So add all those together, and you get what --
20 the total capital investment. So this is to get you
21 with a combustor installed on the site and all hooked up
22 and ready to go.

23 So these are in 2012 dollars. So we scaled
24 them up to 2019 dollars, using what's called the
25 Chemical Engineering Plant Cost Index, which is -- it's

1 published through Chemical Engineering magazine. And
2 you get a start year, which was 2012, and then we scaled
3 everything up to 2019.

4 So there's two factors. You just divide the
5 2019 -- or divide one by the other, and you get a
6 scaling ratio. So the costs are scaled up from 2012 to
7 2019. In this case we actually used -- in the testimony
8 that was submitted on the rule, there was actually a
9 combustor cost provided by one of the commenters. So we
10 included that in our analysis.

11 So to spread the costs out over the years, we
12 use what's called a capital recovery factor, which is
13 calculated based on the interest rate, which in this
14 case is 3.25 percent, and a 15-year lifetime for
15 recovering that cost. So that gives you what's called
16 the capital recovery factor, which in this case is
17 .0853. You multiply that times your capital cost, and
18 you get your annualized capital cost.

19 So that's, if I'm not mistaken -- this is your
20 total capital cost. It's the same here, \$115,000. It's
21 here. You plug in your interest rate, the years, you
22 get this capital recovery factor, multiply it -- oop.
23 Oh, my gosh. Don't do that, Brian. Anyway. Sorry.
24 You multiply the capital recovery factor by this capital
25 cost, and now this is your annualized capital cost, if

1 you're going to do \$115,000.

2 And then we have these annual cost items which
3 will occur every year, even after the equipment's paid
4 for, let's say, and these include operating labor,
5 maintenance labor, nonlabor maintenance, so that's
6 parts, for example. In this case because it's a
7 combustor, we're including a cost for pilot fuel. Data
8 management, which there were a lot of questions about
9 whether there's the administrative costs of these add-on
10 controls is included, and so there's data management
11 included. Those costs from 2012 are scaled up to 2019,
12 as well.

13 And then there's a capital recovery, which in
14 this case we estimated for the cost of the combustor
15 plus one large storage tank retrofit cost.

16 And so adding everything together here, you
17 get your total annual cost, which in this case is
18 \$24,500. So that's the annual cost per year to operate
19 and maintain a combustor, and it includes the capital
20 recovery, so the initial capital cost of building and
21 installing the combustor.

22 So that's pretty much how we do it, and it's
23 something similar for each of the control devices that
24 we have, or in the case of engines, you know, retrofit
25 costs, for example.

1 And in this case we've also set up -- because
2 it's storage tanks and some facilities have more than
3 one storage tank, we set it up so that we could
4 calculate, you know, cost given like one combustor and
5 the cost per tank, so we can multiply the number of
6 tanks times that cost. So that's what we have over in
7 these -- this part of the spreadsheet here.

8 But that's basically sort of our template for
9 doing these, and I will entertain any questions the
10 Board may have on how we do this.

11 Let me know if I should stop sharing the
12 screen.

13 HEARING OFFICER ORTH: Yes, please.

14 MR. PALMER: Okay.

15 HEARING OFFICER ORTH: I may have to ask you
16 to reshare it, but it's hard to see --

17 MR. PALMER: That's fine. Okay. I've just
18 got to figure out --

19 HEARING OFFICER ORTH: -- who's turning on
20 their screen.

21 Counsel or parties, if you have a --

22 MR. PALMER: Stop. Stop sharing. Okay.

23 Thank you.

24 HEARING OFFICER ORTH: -- question of
25 Mr. Palmer, please turn on your video.

1 Mr. Hiser and then Mr. Rose.

2 CROSS-EXAMINATION OF BRIAN PALMER

3 BY MR. HISER:

4 Q. Good morning, Mr. Palmer.

5 A. Good morning.

6 Q. I actually wouldn't mind if you put your
7 screen back up with that spreadsheet on.

8 A. Okay.

9 Oh. Okay.

10 Q. And one of the things that I think that you've
11 heard from industry is that the -- that some of the
12 costs might be a little bit low, and I wanted to give an
13 example of the industry concern with that.

14 So if you were to take row 6, which is your
15 combustor cost, and your 2012 cost, I think, shows
16 18,169 --

17 A. Um-hum.

18 Q. -- and you were to multiply that cost by your
19 inflation factor that's shown in row 3, which is the
20 607.5 divided by the 584.6, could you do a demonstration
21 just to show what the inflated costs would be versus the
22 Valor cost that you actually inserted into column --
23 into your column C?

24 Because I believe that's the Valor cost
25 according to your note.

1 A. That's correct.

2 So --

3 Q. This --

4 A. -- this cost here is based on --

5 Q. The Valor cost.

6 A. So what is your question exactly?

7 Q. I was just hoping that you could show the
8 Board the difference between the Valor estimate and what
9 we would have seen if we had used a 2012 cost
10 extrapolated out using the Chemical Engineering Plant
11 Cost Index number.

12 A. Okay. Let me do something real quick here, if
13 I may.

14 Q. So hopefully you've got it set up so that you
15 can edit.

16 A. Oh, yeah. It's set up so I can edit.

17 Q. So I would just maybe under the note put
18 equals, and you can just type the formula in there.

19 A. Yeah. That's what I was going to do. I was
20 just going to -- here.

21 (Unintelligible and/or inaudible). Off.
22 Bring that back there. This off here. Okay. So -- and
23 then I'm going to -- instead of doing that one, I'm
24 going to do this one here.

25 Q. Yeah.

1 A. So we had -- yeah. So that one went up -- was
2 only 18. This is what we originally had. This is what
3 Valor submitted.

4 Q. Provided. Okay.

5 But there's -- you would agree that there is a
6 little bit of a difference between those two estimates?

7 A. Yes. Yes, there is.

8 Q. Okay.

9 A. And if you take this one here -- okay? Okay.
10 So now -- take this one. So this was our annualized
11 cost here. Oh, this one here. Sorry. 18. And this is
12 the Valor one annualized. So there's a \$900 -- 9 --
13 \$900 per year difference in annualized capital cost. So
14 it's a \$10,000 difference, 11,000 almost difference in
15 the capital cost.

16 After you annualize it, the difference -- the
17 annual cost does go down a little bit. The difference
18 is \$900 a year, not -- you know, less than 1,000. So
19 the annualizing is pretty important.

20 The interest rate you use here is pretty
21 important. The CTG is the 7 percent interest rate
22 instead of a 3.25. And so even -- this was the -- this
23 here is the CTG's initial cost from 2012, and this is it
24 actually here, using a 3.25 instead of a 7. So this is
25 after scaling it up and -- well, it's actually -- I'm

1 getting confused.

2 But the interest rate is pretty important in
3 your numbers, because the years, 15 to 20, is -- that's
4 a factor, but the interest rates are -- you know, people
5 are much happier with 3.25 than they are with 7. So --

6 Q. Okay.

7 Now, that was really my only question, was
8 just to sort of show the --

9 A. Yeah.

10 Q. -- just level of difference between the ex --
11 inflator and the other costs from time to time.

12 That's my only question, Ms. Orth. So I will
13 turn Mr. Palmer over to Mr. Rose.

14 HEARING OFFICER ORTH: Thank you.

15 Mr. Rose?

16 MR. ROSE: And thanks for turning him over
17 here.

18 CROSS-EXAMINATION OF BRIAN PALMER

19 BY MR. ROSE:

20 Q. I just had a couple of questions about your
21 example.

22 And I know that looks like you've looked --
23 you've got the 2012 dollars, which is the EPA numbers,
24 and the 2019 dollars.

25 Is there a reason why you use 2019 and not

1 2020 or 2021 dollars --

2 A. We had started the analyses -- we started the
3 analyses in 2020, and so the -- the most readily
4 available capital -- Chemical Engineering Plant Cost
5 Index was for 2019.

6 Q. And is there a 2020 available now? And if so,
7 how does it --

8 A. Yes.

9 Q. -- compare, talking about relatively minor
10 increases or --

11 A. Yeah. I mean, because interest rates and
12 inflation have been relatively low, things are
13 different -- you know, I think given there is obviously
14 more talk in the news now about higher inflation than we
15 have seen in the past. So it's -- yeah. I -- but you
16 can see even from 2012 to 2019 -- I don't want to call
17 it modest, but not earth-shattering differences there.
18 So --

19 Q. Yeah. I think we got into trouble talking
20 about modest and --

21 A. I know. It's a --

22 Q. -- probably a good idea not to do that.

23 A. Right. Yeah.

24 Q. With respect to your labor costs and -- and,
25 obviously, there will be comments on individual pieces

1 when we get to it, but as a general proposition, how did
2 you derive your labor costs, and are they area specific?
3 Are they different, for example, in the states Northwest
4 and in the Southeast? And if so, is that accommodated
5 by your spreadsheet at all?

6 A. These -- these labor costs came from the -- in
7 this particular case, they came from the EPA's 2016 CTG,
8 and those are usually national labor costs. The EPA
9 tends to look at the Bureau of Labor Statistics to
10 generate those. And they include both the fixed labor
11 cost -- well, the salary, or wages, and then also
12 overhead benefits, as well, health insurance, vacation,
13 retirement, whatever.

14 So there's usually a multiplier they use to
15 calculate those so that it includes the whole package.
16 It's not just hourly wages.

17 Q. So for example -- I mean, 2021 has been,
18 obviously, an odd year in terms of labor and whether or
19 not labor is actually even accessible at any cost for
20 some of these things.

21 I was curious if that's factored into any of
22 this, or would that be something we'd need to look at in
23 the context of individual costs that you're going to go
24 through later for the individual items?

25 A. It's not. You know, as I said, we set these

1 all up, they've generally been using preexisting cost
2 algorithms from EPA and other documents. We included
3 also, I mean, if -- like some industry studies to
4 estimate costs. And generally they don't have, you
5 know -- we haven't tried to forecast or estimate the
6 impact of the current situation on -- on labor costs per
7 se. I mean, that's a -- another -- another level of
8 computation that's hard to -- hard to apply. So --

9 Q. And there -- and there may not be any
10 quantitative measures, and some of these may be more
11 qualitative, and we'll get into that.

12 With respect to your annualized costs, I think
13 I heard you say, and I just wanted to understand it,
14 that you're looking at taking the capital costs and
15 spreading them over the lifetime of the particular piece
16 of equipment.

17 I assume -- or that assumes, does it not,
18 that, in fact, these will be financed over the -- that
19 period of time, as opposed to the capital costs being
20 paid up front?

21 A. Generally. It's a standard EPA cost
22 estimating procedure to -- to spread the costs out over
23 the lifetime of the equipment. So --

24 Q. I think there may be testimony with respect to
25 how some of the businesses here, particularly the

1 smaller ones, whether they, in fact, finance or how they
2 do that. So we'll get into --

3 A. Right.

4 Q. -- those discussions more particularly later,
5 I think.

6 A. Yeah. And that's -- and that's -- and that
7 obviously varies from business to business, it varies
8 from industry to industry. It may vary from equipment
9 type to equipment type. And so it's -- we're not privy
10 to what individual companies are capable of doing and
11 such. So this is a standardized procedure to present
12 costs on a -- on a uniform documented basis.

13 Q. And I take it it also depends on the
14 availability of credit for some of these businesses,
15 which may or may not --

16 A. (Simultaneous discussion.)

17 Q. We'll have, I think -- I assume, testimony on
18 that later, as well.

19 Thank you, Mr. Palmer. That's all the
20 questions I have.

21 HEARING OFFICER ORTH: All right. Thank you,
22 Mr. Rose.

23 I didn't see anyone else with their screen on.

24 I'm going to turn to the Board Members for
25 their questions.

1 While I'm doing that, in the event you're an
2 attendee and have a question, please reach out through
3 the chat.

4 EXAMINATION OF BRIAN PALMER

5 BY THE BOARD:

6 HEARING OFFICER ORTH: Madam Chair, do you
7 have questions?

8 CHAIR SUINA: Thank you, Madam Hearing
9 Officer.

10 Just clarification on some of these.

11 So I'm actually looking at the spreadsheet in
12 detail so it's taking me a little bit of time to do
13 that, but --

14 MR. PALMER: Um-hum.

15 CHAIR SUINA: -- in my mind this pink -- I
16 know you can't see my arrow here, but the pink is -- is
17 combined into that annual combustor cost pink in column
18 E; is that correct?

19 MR. PALMER: That's correct. Right.

20 CHAIR SUINA: Okay.

21 MR. PALMER: So here.

22 Like that?

23 CHAIR SUINA: Okay. That helps.

24 MR. PALMER: Yeah.

25 CHAIR SUINA: Okay.

1 And then the purple is just the purple, and
2 then the blue is the addition of the pink and the
3 purple; is that correct? Okay.

4 MR. PALMER: Correct. Yeah. We set this up
5 like -- so that when we did the storage tank costs we
6 could actually apply this retrofit cost here to the
7 number of tanks that that particular facility had and
8 the equipment data from NMED from their permitting
9 database.

10 CHAIR SUINA: Okay.

11 And would you -- would you mind also going
12 over the brown, as well, clicking on column E -- yeah.

13 MR. PALMER: Um-hum.

14 CHAIR SUINA: That one there. So it's the sum
15 of the brown. And then the orange is really -- can you
16 go to the orange or -- yeah. There you go.

17 MR. PALMER: Oops. Hang on. Oh, no. Come
18 on.

19 CHAIR SUINA: If you just hit the X in the --
20 next to the formula, go up -- yeah. And then hit that X
21 right there.

22 MR. PALMER: Thank you.

23 CHAIR SUINA: Um-hum.

24 MR. PALMER: Yeah.

25 CHAIR SUINA: Yeah. So could you go to the

1 orange? Sorry.

2 MR. PALMER: Okay. Um-hum.

3 CHAIR SUINA: There you go.

4 So that is equal to that. Okay.

5 And then the annualized costs, can you click
6 on that orange there?

7 So again just remind me. Can you walk me
8 through that again? So that's --

9 MR. PALMER: In this case, this annualized
10 cost here --

11 CHAIR SUINA: Uh-huh.

12 MR. PALMER: -- is the annualized cost of this
13 total here, which is the total capital investment.

14 CHAIR SUINA: Okay.

15 MR. PALMER: So this value is this times --
16 it's really this times this will equal this.

17 CHAIR SUINA: Okay.

18 Can you -- can you click on that one again?
19 Yes. So I just can see the formula?

20 All right. So B24 times the interest --

21 MR. PALMER: Yeah.

22 CHAIR SUINA: -- is B --

23 (Simultaneous discussion.)

24 MR. PALMER: So really this is -- this B23 is
25 this one here. So this formula here actually has a lot

1 of the same stuff as this formula here.

2 CHAIR SUINA: Okay. Okay.

3 MR. PALMER: So --

4 CHAIR SUINA: Okay.

5 So where does the brown -- again I'm just
6 trying to navigate this. The annual O&M cost, the
7 14,659, where does that come into a summary, I guess,
8 calculation? Is that separate of the 115?

9 MR. PALMER: Yeah. So this is -- for a
10 facility that has to retrofit one tank, this is the
11 total cost, is down here.

12 CHAIR SUINA: Okay.

13 MR. PALMER: So this is the annualized
14 combustor cost, which is all of this. It's a retrofit
15 tank, annualized cost to retrofit a tank, which is this
16 here, and then it's the sum of these O&M costs here.

17 CHAIR SUINA: Okay. Okay. I see.

18 Okay. Well, I'll let my fellow Board Members
19 ask some additional questions as I look through this.
20 Thank you. That's all for now.

21 Thank you, Madam Hearing Officer.

22 HEARING OFFICER ORTH: Thank you.

23 Vice-Chair Trujillo Davis?

24 VICE-CHAIR TRUJILLO DAVIS: Yes.

25 And thank you, Mr. Palmer, for putting this

1 together for us, too, to look at.

2 My question is the total capital investment
3 that you referred to, I believe it's that 115,761; is
4 that correct?

5 MR. PALMER: Um-hum.

6 VICE-CHAIR TRUJILLO DAVIS: Is that -- just to
7 clarify, that's per facility, not -- is that correct?
8 Is that --

9 MR. PALMER: That's correct. And that's for a
10 facility that has one storage tank retrofit.

11 VICE-CHAIR TRUJILLO DAVIS: One storage tank
12 retrofit. Okay.

13 MR. PALMER: Right. Yeah.

14 VICE-CHAIR TRUJILLO DAVIS: So is that based
15 on the -- well, actually, that -- I guess that wouldn't
16 matter.

17 So most facilities in Eddy and Lea County,
18 they have five tanks. So --

19 MR. PALMER: Correct. Yeah.

20 VICE-CHAIR TRUJILLO DAVIS: -- we would take
21 that and multiply that by -- by five, right?

22 MR. PALMER: This -- in a case where you have
23 five tanks --

24 VICE-CHAIR TRUJILLO DAVIS: Um-hum.

25 MR. PALMER: -- you'll take this annualized

1 combustor cost plus five times this, plus the annual O&M
2 cost. So you're going to have about \$30,000 in retrofit
3 costs instead of \$6,000. So this value here would go up
4 to, you know, \$50,000, instead of 24,000.

5 VICE-CHAIR TRUJILLO DAVIS: Okay.

6 And these numbers apply to any operator no
7 matter the size; is that correct?

8 MR. PALMER: In the storage tank rule
9 provisions, there's a ton per year potential to emit
10 threshold. So they would apply to any facility that is
11 above that ton per year PTE threshold.

12 VICE-CHAIR TRUJILLO DAVIS: Okay. So I'm just
13 trying to kind of wrap my head around this.

14 So if they qualified -- and this may be
15 partially a question for Ms. Katz, as well. If they
16 qualified for a small business -- under the small
17 business exemption and they made their annual cost -- or
18 their annual profit was less than \$250,000, I believe is
19 the number --

20 MR. PALMER: Um-hum.

21 VICE-CHAIR TRUJILLO DAVIS: -- then if they
22 operated 10 facilities, this would eat their profit for
23 at least five years? Is that the way I understand it?

24 MR. PALMER: That would be a pretty unlikely
25 scenario. I mean, yes. If they had -- if there were 10

1 storage tank facilities, this would be -- they would
2 have 10 times this cost, this much for each storage tank
3 facility, if it was a -- if they were all separate
4 facilities.

5 But I think it's -- we're not really trying to
6 go into the impacts on any individual facility in this
7 discussion, but this is the cost per facility if they
8 had one storage tank.

9 VICE-CHAIR TRUJILLO DAVIS: Per facility per
10 year, right?

11 MR. PALMER: Per facility per year. That's
12 correct. Yep.

13 VICE-CHAIR TRUJILLO DAVIS: Okay.

14 But the 115,000 is total.

15 MR. PALMER: That is the initial capital cost.
16 That's the cost to buy and install the equipment and
17 retrofit a storage tank.

18 VICE-CHAIR TRUJILLO DAVIS: So as I
19 understand, you know, a larger facility can cover -- I
20 mean -- sorry -- a larger company can cover the cost of
21 these a lot easier than a smaller company. So I'm
22 trying -- I'm trying to figure out really what kind
23 of -- what kind of impact are we looking at on maybe the
24 smaller operators as -- as they try to incorporate some
25 of these?

1 MR. PALMER: Um-hum.

2 MS. KATZ: Member Trujillo Davis, perhaps I
3 could at least add some clarification, that this cost,
4 the storage tank provisions, would not apply to a small
5 business facility.

6 VICE-CHAIR TRUJILLO DAVIS: Okay.

7 MS. KATZ: Most of the -- most of the
8 provisions of the rule will not apply to a small
9 business facility, except for leak detection and repair.

10 VICE-CHAIR TRUJILLO DAVIS: Okay. Thank you
11 for that clarification. That's what I was trying to
12 ascertain.

13 I don't have any more questions right now.
14 Thank you.

15 HEARING OFFICER ORTH: Thank you.

16 Member Cates?

17 MEMBER CATES: Yeah. No questions here.
18 Thank you.

19 HEARING OFFICER ORTH: Thank you.

20 Member Bitzer?

21 Let's see here.

22 Did you say no questions?

23 Member Bitzer?

24 Hmm. Okay.

25 Okay. I'm not hearing you, Member Bitzer,

1 even though you're unmuted. But it doesn't look like
2 you have other questions. Okay.

3 Member Duval?

4 MR. DUVAL: No questions. Thank you.

5 HEARING OFFICER ORTH: Thank you.

6 Member Garcia?

7 MEMBER GARCIA: Yes. Thank you.

8 I -- I'm not sure if we decided that I could
9 ask questions as a panel. In other words, I have a
10 question for Mr. Hiser or Mr. Rose.

11 Would that be possible or no?

12 HEARING OFFICER ORTH: Not -- not just yet.

13 MEMBER GARCIA: Okay.

14 (Simultaneous discussion.)

15 HEARING OFFICER ORTH: When they put on their
16 witnesses, that would be a good question.

17 MEMBER GARCIA: Okay. Thank you. That's all.

18 HEARING OFFICER ORTH: All right.

19 Member Honker?

20 MEMBER HONKER: No questions. Thanks.

21 HEARING OFFICER ORTH: All right.

22 I -- oh, let's see. Madam Chair, and then I
23 do have a question in the chat.

24 Madam Chair, go ahead.

25 CHAIR SUINA: Thank you, Madam Hearing

1 Officer.

2 And actually Member Garcia brought this up.
3 Maybe I can wait for my question, because it has to do
4 with NMOGA's numbers, as well. So I'll wait until --
5 just in terms of efficiency on my question.

6 HEARING OFFICER ORTH: All right. Thank you.

7 The question in the chat from Ms. King,
8 Mr. Palmer, does the economic cost estimate method
9 differ from -- differ from the EPA control cost manual?
10 And if it does, why?

11 MR. PALMER: It does not, in fact. Most of
12 these, because we used a lot of the -- a lot of cost
13 algorithms from the USEPA, it incorporates the USEPA's
14 control cost methodology. So that's sort of the
15 standard we tend to use as a default.

16 In a couple of cases, there are some where we
17 can get into those specifics, and they're documented in
18 our testimony and in our spreadsheets where we differ
19 from using the EPA methodology. We -- we documented
20 that. But for the most part, we use the EPA OAQPS
21 Control Cost Manual.

22 HEARING OFFICER ORTH: All right. Thank you.

23 And Vice-Chair Trujillo Davis.

24 VICE-CHAIR TRUJILLO DAVIS: I just have one
25 more question. It kind of goes along those exact same

1 lines.

2 Was there any cost that you identified that
3 you chose not to include? Maybe they were slightly out
4 of scope or anything like that?

5 MR. PALMER: No. I can't recall any. I think
6 we tried to be pretty comprehensive and pretty
7 transparent in the spreadsheets. Everything is in
8 there, and the spreadsheets were put on the NMED's web
9 site back at the beginning of June, and they include,
10 you know, similar to this sheet here, all the references
11 and all the scaling factors.

12 And so we tried to be as transparent as
13 possible in developing the costs and emission reduction
14 estimates, as well, cost effectiveness. And then we --
15 so we -- some of the parties took advantage of that and
16 provided pretty constructive, detailed testimony on the
17 cost estimates. And we examined that during developing
18 our rebuttal testimony and the final rule and the
19 proposed final, the September 7 -- 16th version of the
20 rule.

21 So -- so everything -- everything we did is
22 spelled out as much as we could. So --

23 VICE-CHAIR TRUJILLO DAVIS: Thank you for that
24 information.

25 I don't have any more questions.

1 HEARING OFFICER ORTH: Thank you.

2 MS. KATZ: And I'll just say that again this
3 was just using as an example each of these -- there's
4 one of each of these for each of the rule sections. The
5 costs will be detailed in the testimony on each of those
6 sections. So if there's questions about a particular
7 estimate for a particular equipment or process, it will
8 be dealt with in that section.

9 HEARING OFFICER ORTH: All right. Thank you,
10 Ms. Katz.

11 Madam Chair, you had another question?

12 CHAIR SUINA: Thank you, Madam Hearing
13 Officer.

14 Just one question to clarify.

15 So the costs in brown related to operating the
16 labor really looks like the labor costs, did that
17 also -- can you explain maybe more where -- how those
18 were estimated? Were those coming from the CEPCI, or
19 were those -- how did you assume how much labor was
20 going to be needed? Because I -- again I presume that
21 the rule for New Mexico is unique, that it might not be
22 same thing widespread across nationwide costs.

23 MR. PALMER: Um-hum. The operating labor,
24 maintenance labor, those were the same values used in
25 the original documentation. So in this case it was the

1 EPA's Control Technique Guideline document. We -- we
2 pretty much took those at face value and didn't try to
3 dig into the details and see if there was any --
4 anything different for New Mexico compared to what the
5 EPA used in their cost estimates.

6 CHAIR SUINA: Okay.

7 So --

8 MR. PALMER: We generally take an estimated
9 labor and then apply the -- the labor cost and benefits
10 for each type of control device, source type.

11 CHAIR SUINA: Okay.

12 So that index or that source did estimate how
13 many hours or how -- how extensive the labor was going
14 to be?

15 MR. PALMER: Yeah. And the -- the methodology
16 in the OAQPS Cost Manual includes estimates for labor,
17 as well as other expenses, and those are usually based
18 on estimates from vendors and industry input.

19 CHAIR SUINA: Okay. Thank you for that
20 clarification.

21 That's all for right now, Madam Hearing
22 Officer.

23 HEARING OFFICER ORTH: All right. Thank you
24 very much.

25 Ms. Katz, will there be any follow-up?

1 MS. KATZ: Just a couple questions.

2 REDIRECT EXAMINATION OF BRIAN PALMER

3 BY MS. KATZ:

4 Q. So, Mr. Palmer, so with regard to Mr. Hiser's
5 observation about the change in the numbers in the
6 costs, does this actually demonstrate that we listened
7 to what the other parties' input was and made changes
8 accordingly?

9 A. In this particular case, yeah. I mean, we did
10 try to look at the information for where we did get
11 relatively manageable, let me say, comments on the
12 costs, and we did try to -- we did update those costs
13 when we could. In some cases cost estimates were very
14 facility specific, related to a particular control
15 technology that we did not actually adopt in the -- in
16 the September 16th version of the rule. But for the
17 most part, we tried to do that.

18 Q. Where we thought it was -- where we felt
19 like --

20 A. Yes.

21 Q. -- it was warranted and reasonable?

22 A. Yeah. And broadly applicable.

23 Q. Thank you. Okay.

24 A. And not facility specific. Yes.

25 Q. And then with regard to the questions about

1 how we calculated various costs or various types of
2 costs, did all -- these spreadsheets were posted for
3 everybody's review beginning in June of this year,
4 correct?

5 A. That's correct. Yes.

6 Q. And so the parties had the opportunity to
7 review all of these and make comments as to the
8 methodologies in their -- both their direct and rebuttal
9 testimonies; is that correct?

10 A. That's correct. And some parties even dug
11 into not just the methodology, but the actual data and
12 provided some corrections that we were able to
13 incorporate into analyzing the data further for the
14 rule. So --

15 Q. Okay.

16 Thank you. That's all I have.

17 HEARING OFFICER ORTH: All right. Thank --
18 yes?

19 MS. KATZ: Oh, I'm sorry. I just was -- would
20 then ask to move to the engines testimony.

21 HEARING OFFICER ORTH: All right. Thank you.

22 And will it still be Mr. Palmer or Ms. Kuehn?

23 MS. KATZ: Both.

24 HEARING OFFICER ORTH: Okay. Thank you.

25 Go ahead.

1 MR. BAAKE: Madam Hearing Officer, before we
2 get started -- this is David Baake.

3 I did want to just inform the parties that we
4 do hope to have brief surrebuttal on this.
5 Unfortunately, our witness, Dr. Daniel Orozco, is not
6 available today. Likely Wednesday would be the best day
7 for him. But again we expect it to be fairly brief.

8 HEARING OFFICER ORTH: All right. Thank you.

9 I know that as we try to move through these
10 topics quickly we sometimes confront witness
11 availability issues. But I think that's okay. It will
12 all be a part of the same 10-volume transcript. So
13 thank you for that, Mr. Baake.

14 Go ahead, Ms. Katz.

15 DIRECT EXAMINATION

16 BY MS. KATZ:

17 HEARING OFFICER ORTH: Does Ms. Kuehn need
18 screen sharing? All right.

19 MS. KATZ: Yes.

20 And for the Board's information, this -- this
21 rule provision is 20.2.50.113, and it is in -- the
22 testimony is in NMED Exhibit 32, starting on page 30,
23 and then on NMED Rebuttal Exhibit 1, pages 27 through
24 48.

25 MS. KATZ: All right. I will start with

1 Mr. Palmer.

2 You've submitted written direct and rebuttal
3 testimony on this, correct?

4 Mr. Palmer?

5 You're on mute.

6 MR. PALMER: Yes, I did.

7 MS. KATZ: Okay.

8 And you've already adopted those on the
9 record.

10 Do you have any changes to your written
11 testimony?

12 MR. PALMER: Yes, I do.

13 On -- in Rebuttal Exhibit 01, on page 47, line
14 4, the words at the end of the sentence "in the table
15 below" should be replaced with the words "in Rebuttal
16 Exhibit 5."

17 And on the same page, at lines 22 and 23, the
18 words at the end of the sentence "in the table below"
19 should be replaced with the words "in Rebuttal
20 Exhibit 5."

21 MS. KATZ: Thank you.

22 And, Ms. Kuehn, you've submitted your written
23 direct and rebuttal testimony on this topic?

24 MS. BISBEY-KUEHN: Yes.

25 MS. KATZ: Do you have any changes to your

1 written testimony?

2 MS. BISBEY-KUEHN: No.

3 MS. KATZ: Okay. Thank you.

4 Ms. Kuehn, can you summarize how engines and
5 turbines are used in the oil and gas industry and the
6 types of engines and turbines that are used?

7 MS. BISBEY-KUEHN: Yes. Thank you.

8 Good morning, everyone.

9 Engines and turbines are used throughout the
10 oil and gas sector for a variety of purposes.

11 They are used for compressors that move gas
12 throughout the gathering and transmission sector and
13 pipelines. They move gas from the wellhead to gas
14 processing plants and from gas processing plants to
15 transmission pipelines. They move the gas from
16 transmission pipelines to the ultimate user of the gas.

17 They also provide electrical power to sites
18 not connected to commercial line power or as a backup
19 power supply. And engines are used to provide
20 mechanical lift to supplement production from -- from
21 oil wells.

22 In addition, there are two kinds of
23 reciprocating internal combustion engines used in the
24 oil and gas sector. Those are spark ignition and
25 compression ignition, and those speak to the types of

1 ignition that occurs.

2 The control options available for -- for these
3 engines include combustion modifications and
4 postcombustion control to reduce -- in order to reduce
5 NOx emissions. You can employ emission reduction methods
6 that lower the combustion temperature and reduce the
7 thermal NOx created during the combustion cycle.

8 You can also add on postcombustion control
9 technology in the form of a selective catalytic
10 reduction control device or nonselective catalytic
11 reduction device. SCR use a catalyst and a reagent to
12 reduce NOx emissions, and they select for NOx reduction,
13 and hence the term "selective catalytic reduction."
14 Nonselective catalytic reduction targets reduction in NOx
15 and VOC, as well as carbon monoxide.

16 There are also other types of oxidation
17 catalysts that oxidate carbon monoxide and volatile
18 organic compounds. Those are another type of
19 aftermarket catalyst that can reduce VOC emissions.

20 The control options for turbines also employ
21 combustion modifications that reduce the overall
22 combustion temperature, which limits the amount of
23 thermal NOx created in the combustion cycle. And you may
24 also use SCR application to reduce NOx emissions from
25 turbines. And the control options for turbines again

1 are catalytic oxidation, which is a specific type of
2 catalyst that oxidizes carbon monoxide and VOCs.

3 You're on mute, Ms. Katz.

4 MS. KATZ: Sorry.

5 I lost where we are here. We're not on Brian
6 yet.

7 MS. BISBEY-KUEHN: No.

8 MR. PALMER: No.

9 MS. KATZ: Can you please discuss the
10 applicability and emission standards for the engines?

11 MS. BISBEY-KUEHN: Yes. New engines and
12 turbines are required to meet the emission limits in
13 Part 50 upon startup. Existing engines must meet the
14 emission limits over specified timelines in the rule.

15 We have a tiered compliance timeline that
16 allows operators to meet certain percentages of their
17 fleet over periods of time, and so the concept is that
18 at least 30 percent of an owner or operator's existing
19 set of engines must meet the emission standards by
20 July -- or January 1st, 2025. An additional minimum
21 35 percent must meet the emission standards by
22 January 1st, 2027. And then the remaining 35 percent
23 must meet the emission standards by January 1st, 2029.

24 In addition, there's an option to reduce the
25 hours of operation of a specific engine or turbine in

1 order to comply with the emission standards. And there
2 are additional alternative methods of compliance for
3 difficult to retrofit units while ensuring equivalent
4 reductions that -- that I'll speak to in a few minutes.

5 For existing turbines, they are required to
6 meet the limits, as well, over a specified timeline in
7 the rule. Owners and operators must meet at least --
8 30 percent of their fleet must meet the emission
9 standards by January 1st, 2024. An additional
10 35 percent of the existing turbines must meet the
11 emission standards by January 1, 2026. And then the
12 remaining 35 percent must meet the emission standards by
13 January 1st, 2028.

14 And this -- this timeline is one year shorter
15 for the boiler turbines, and that was because there are
16 just -- there are far fewer number of turbines that are
17 subject to the rule than engines, and so we have a
18 slightly shortened compliance timeline given the smaller
19 number of turbines in that universe.

20 In addition, there's an option for owners and
21 operators to reduce the hours of operation to meet the
22 emission standards. This is an equivalent amount of
23 emission reductions and an important option for owners
24 and operators to meet those standards for difficult to
25 retrofit turbines.

1 And then I'll be speaking about the other
2 alternatives that we have drafted into the -- into the
3 proposed rule shortly.

4 MS. KATZ: Thank you, Ms. Kuehn.

5 Mr. Palmer, can you please discuss for the
6 Board the basis for the engine and turbine requirements
7 that are proposed?

8 MR. PALMER: Yes. On this slide we're listing
9 some, but not all of the different standards we looked
10 at and guidance documents to develop the standards for
11 engines and turbines, recognizing that you need to look
12 beyond just the standard itself and also the background
13 documentation and performance data in order to develop
14 an achievable emission standard.

15 So there's -- some of these we refer to as
16 some key documents that we've used to develop standards
17 for some -- several of the source categories.

18 There's a Pennsylvania General Permit for oil
19 and gas operations, Colorado Regulation 7 for oil and
20 gas. We looked a lot at these Ohio EPA stack test
21 summaries for engines and turbines to develop the
22 emission standards. So this is actual performance data
23 from engines and turbines in Ohio that had been
24 collected and tested over the years from their
25 compliance testing program.

1 Looked at documents from the Ozone Transport
2 Commission, EPA's Alternative Control Technique
3 guideline documents for engines, the federal NESHAP for
4 engines, the NSPS for engines, the EPA's Alternative
5 Control Technique guideline document for turbines, the
6 Technical Support Document for the Cross-State Air
7 Pollution Rule for compliance with the 2008 ambient air
8 quality standards, and then also an industry document
9 which was the -- from the Interstate Natural Gas
10 Association of America. And this was a report on the
11 availability of NOx emission controls for reciprocating
12 compressor engines.

13 So these are just some of the documents that
14 we referred to. All the documents we referred to are
15 listed in the engine and turbine spreadsheets for both
16 NOx and VOC.

17 MS. KATZ: Thank you.

18 And just to clarify for the Board, that the
19 NESHAP is the National Emission Standards for Hazardous
20 Air Pollutants and NSPS is the New Source Performance
21 Standard?

22 MR. PALMER: That's correct.

23 MS. KATZ: Okay.

24 MR. PALMER: Okay.

25 MS. KATZ: Can you discuss the estimated costs

1 and emissions reductions for engines and turbines,
2 Mr. Palmer?

3 MR. PALMER: Yes. So these are the costs and
4 emissions reductions based on the September 16th version
5 of the rule that we'll discuss in the coming slides.

6 So for engines, we estimated a 5,000 ton per
7 year NOx emission reduction and a cost of -- at a cost of
8 \$11.4 million per year. And this is based primarily on
9 most of the engines in the New Mexico database would be
10 able to comply. So this is based on retrofit cost for a
11 handful of engines -- well, about a hundred older
12 engines.

13 And this cost here is for those engines.
14 There's probably some that we -- that will have to take
15 advantage of the -- the flexibility provisions in the
16 rule, because they're -- they're a lot older. They're
17 from the 1950s and '60s and early '70s. So they'll
18 probably have to take advantage of those flexibility
19 provisions.

20 We've estimated from engines 1,600 tons per
21 year of VOC emissions reductions at a cost of
22 \$1.6 million per year. And that's primarily for
23 oxidation -- oxidative catalysts and NSCR on those
24 engines that don't already currently have it.

25 For turbines, we estimated costs -- an

1 emission reduction of 1,900 tons per year reductions and
2 a cost of \$4.3 million per year. And 353 tons per year
3 of VOC reductions at a cost of \$3.4 million per year.
4 And the VOC reductions are based on oxidative catalysts,
5 and the 4.3 million per year is based on retrofit costs.

6 MS. KATZ: Okay.

7 Ms. Kuehn, can you discuss the flexibilities
8 that we have built into the rule now with the
9 Alternative Compliance Plans and alternative emission
10 standards?

11 MS. BISBEY-KUEHN: Yes. In response to
12 comments from stakeholders, we developed an Alternative
13 Compliance Plan that we think provides a reasonable
14 amount of flexibility for sources that are unable to
15 meet the emission standards by allowing owners and
16 operators to determine equivalent amounts of reductions
17 using an alternative strategy.

18 We also added additional requirements for the
19 Alternative Compliance Plan and then for the alternative
20 emission standard that we think are critical to ensuring
21 that the process is transparent and supportable and
22 equivalent.

23 The first concept is -- is the Alternative
24 Compliance Plan, which I'll go through in -- ad nauseam
25 when we get to the final rule -- or the proposed rule.

1 This allows operators to look at -- look at their fleet
2 of engines and propose a plan to the Department that
3 achieves equivalent reductions of emissions.

4 And the second is an alternative emission
5 standard for specific -- for a specific engine or
6 turbine that is unable to achieve those reductions
7 through an Alternative Compliance Plan. For those
8 specific engines or turbines, an owner or operator may
9 conduct a technical and economic feasibility analysis
10 and propose that alternative emission standard for that
11 unit to the Department.

12 Prior to proposing those plans to the
13 Department, the owner or operator must first have that
14 proposal reviewed by an independent third-party
15 consulting or engineering firm who will review the
16 proposal for -- to ensure that it is -- meets the
17 requirements of the subpart and can meet -- that the
18 emission reductions are equivalent to the emission
19 standards in this subpart.

20 At that time that the -- the third party makes
21 their findings after review of the -- the proposal, the
22 owner or operator must then send that proposal with the
23 consulting firm's findings to the Department, where the
24 Department will post the proposal on its web site and
25 make that proposal and the findings available to the

1 public for a period of 30 days.

2 The owner or operator will simultaneously
3 publish a newspaper notice in a newspaper of general
4 circulation, notifying the public of the availability of
5 that -- that review.

6 After the close of the public comment period,
7 those comments will be sent to the owner or operator,
8 and the owner or operator must address any of the
9 comments received on either proposal.

10 After the comments are received, the -- and
11 the owner or operator satisfactorily responds to those
12 comments, that is when the Department is -- initiates
13 its formal technical review of the proposal. And we
14 have 90 days to review that proposal and approve or deny
15 the -- either the Alternative Compliance Plan or the
16 alternative emission standard proposal.

17 And we think this is an important flexible
18 option for those existing engines and turbines that are
19 very old, and that where it may not be cost effective to
20 necessarily retrofit with a new type of control device,
21 we still -- we think it's important that those engines
22 ensure -- do something to reduce their emissions and --
23 and have that process be transparent and available for
24 public comment.

25 So these -- with these improvements to the

1 overall concept, we think that this process will ensure
2 transparency and will provide additional confidence to
3 the public and also provide reasonable types of
4 flexibility to comply with the standards for -- for
5 those existing units.

6 MS. KATZ: Okay. Thank you.

7 And, Ms. Kuehn, can you summarize the
8 revisions that have been made to the applicability and
9 emission standards for engines and turbines?

10 MS. BISBEY-KUEHN: Yes. I'll start out by
11 saying that the parties are largely in agreement with
12 the new emission standards and thresholds that we've
13 established in this rule.

14 You will see a similar hierarchy or similar
15 kind of pattern of conditions that each of these
16 sections contain. The first subsection in each -- each
17 of the sections of the rule is applicability. That's
18 under Subsection A. And then we will have emission
19 standards under Subsection B. And then we'll follow
20 that with monitoring and recordkeeping and reporting.
21 But you'll see that pattern throughout these sections as
22 we go through different parts of the rule.

23 So for applicability section for engines and
24 turbines, commenters correctly pointed out that -- and
25 made a clarifying request that the nonroad engines that

1 are regulated by the federal government are not subject
2 to this subpart, and we agreed with that comment, that
3 it was correct, and so we've added this clarifying
4 language that those units that meet the definition of
5 nonroad engine are not subject to the requirements of
6 this subpart.

7 Then going down to the emission standards,
8 we've added additional language here that authorizes
9 compliance with the deadline -- with a date specified in
10 this subsection, except as otherwise provided under an
11 approved Alternative Compliance Plan or an approved
12 alternative emission standard.

13 And that -- so B.(1) is speaking to -- is a
14 requirement that outlines the deadlines for compliance
15 for both new and existing engines, and B.(2) speaks to
16 the deadlines for existing engines. And so that -- that
17 clarification was needed in both of those paragraphs.

18 Paragraph B.(2)(a) through (c) spell out the
19 specific schedule that owners and operators must meet
20 and the portion of their percentage of the fleet that
21 must meet the emission standards by specified deadlines.

22 Paragraph B.(2)(d) is the flexible alternative
23 proposal that allows an owner or operator to reduce
24 their annual hours of operation in order to achieve an
25 equivalent amount of emission reductions by -- by

1 limiting their -- their use of -- of equipment, which is
2 a standard and an acceptable way to reduce emissions.
3 So you can -- you can either add on controls or you can
4 reduce the use of -- of equipment, and both actually
5 achieve -- can achieve equivalent amounts of emissions,
6 and so we are agreeable to that approach, as well.

7 We made one edit here that allowed -- that
8 added the -- that inserted the "PTE of" in Paragraph
9 B.(2)(d), which was a necessary clarification, that it
10 was the PTE that needs to be reduced.

11 And then we added a requirement or a clarified
12 statement to -- to clarify that -- that language that
13 allows them to achieve an equivalent allowable ton per
14 year emission reduction as set forth in Table 1, which
15 we'll get to in a second, which outlines the specific
16 standards, or by at least 95 percent per year.

17 MS. KATZ: Can you summarize the requirements
18 for existing engines?

19 MS. BISBEY-KUEHN: Yes. This is the -- Table
20 1 establishes the emission standards for natural
21 gas-fired spark ignition engines constructed or
22 reconstructed before the effective date of this part.
23 So these are the emission standards that are established
24 for existing types of spark-ignited engines.

25 And initially there were standards set out for

1 lean-burn and rich-burn. We received a significant
2 amount of testimony in the written rebuttal from
3 industry and stakeholders that led to the revisions that
4 you see before you. It was necessary, based on those
5 comments, to break out the types of engines that are
6 covered under the rule. So we are now distinguishing
7 between two-stroke lean-burn and four-stroke rich-burn
8 engines.

9 Each one of these engine types has
10 distinguishing characteristics around the fleet of
11 engines that we have in New Mexico that made these
12 breakout points of rated horsepower really important.
13 And all of that expansive kind of voluminous testimony
14 is provided in -- in all of the stakeholders' feedback
15 on this part, and we -- we responded to each of these,
16 as well, in our rebuttal testimony.

17 And if you -- if there are specific questions
18 that anyone has about where these specific standards
19 were derived, we can speak to those. I'm not going to
20 go into a great deal of detail there. But we did review
21 the testimony put on -- put forward by all of the
22 stakeholders. They did not all agree on where things
23 should be. We looked at that entire set of comments and
24 landed on these numbers based on -- on the comments that
25 we received.

1 We were -- there was a request to strike the
2 term "installed." We agreed that simply relocating an
3 engine and then installing an engine at a new location
4 should not be -- should not trigger a new category or
5 classification of that engine as new. And so that
6 striking of the term "installed" addresses that comment.

7 MS. KATZ: And can you discuss the
8 requirements as they exist now for new engines?

9 MS. BISBEY-KUEHN: Yes. So this -- Table 2 is
10 the -- are the emission standards established for spark
11 ignition engines constructed or reconstructed after the
12 effective date of the proposal, and so these are the new
13 engines constructed after the effective date.

14 Again we broke out by horsepower different
15 categories of engines based on feedback from the
16 parties. They did not necessarily all agree with --
17 with the emission standards that -- they didn't agree to
18 their own comments on certain emission standards, but we
19 have reviewed those comments and have -- have arrived at
20 these numbers based on our overview of the Ohio stack
21 test data, as well as the compelling comments that were
22 submitted by all industry partners.

23 The -- Paragraphs (4) and -- Paragraphs (4)
24 and (6) below speak to engines that are using a type of
25 postcontrol technology that needs a reagent in order for

1 the reaction to take place at the catalyst. So both of
2 those paragraphs limit the amount of ammonia or urea
3 that can be emitted from the stack. Those are only
4 relevant if you're using a postcontrol catalyst that
5 needs a reagent.

6 Paragraph (5) is for compression ignition
7 engines, or diesel engines. These are typically limited
8 use engines. We have one standard for new reportable
9 compression ignition engines that are not subject to the
10 requirements of Subparagraph (b), which establishes an
11 obligation to comply with the standard of performance
12 for stationary compression ignition engines.

13 That is a federal NSPS standard, Quad I, for
14 those types of engines. If a newer portable engine does
15 not -- is not required to comply with Subparagraph (b),
16 their emission standard is -- is 9 grams per
17 horsepower-hour upon startup.

18 MS. KATZ: I'll just let you keep going there,
19 Liz.

20 MS. BISBEY-KUEHN: Okay. In this -- so
21 Paragraph (7) addresses the timeline and schedule for
22 existing turbines. Paragraph (7) also establishes an
23 applicability threshold for the -- for the horsepower
24 for those units and indicates that all owners and
25 operators have to meet the emission standards of

1 Paragraph (3) by the date specified in Paragraph (3).

2 So similar to the schedule that we've provided
3 for engines, we have provided a schedule for turbines to
4 comply over a period of time, as I indicated previously.
5 So owners and operators must develop a schedule by
6 January 1st, 2023 -- or by -- excuse me -- by July 1st,
7 2023, and in order to meet this -- the scheduled -- the
8 timelines or the deadlines of (a)(i) through (iii).

9 So by January 1st, 2024, owners and operators
10 must ensure that at least 30 percent of their existing
11 turbines meet the standards. And by January 1st, 2026,
12 at least an additional 35 percent must meet the
13 standards. And by January 1st, 2028, they must ensure
14 that the remaining 35 percent meet the emission
15 standards.

16 Similar to the engine concept, we have an
17 authorization for owners and operators to reduce their
18 hours of operation of a turbine in order to meet an
19 equivalent ton per year reduction of emissions.

20 This is Table 3 before you, and it establishes
21 the emission standards for both the new and existing
22 turbines.

23 The top half of the table establishes the
24 emission standards for existing turbines. We've added a
25 few clarifying words to -- into the instructions that

1 make sense with the insertion of the word "applicable"
2 and the insertion of the schedule set forth in Paragraph
3 (7)(a) that I just went through.

4 We received comments from turbine
5 manufacturers, as well as other parties, based on our
6 original draft proposal, and we have made revisions to
7 these standards based on that feedback.

8 In addition, we received a request from Solar
9 to make another adjustment to the turbine rating for
10 existing turbines, and we are in agreement with that
11 request. That request is to modify the turbine rating
12 for existing turbines so that the range in that first
13 emission standard there for 1,000 -- for turbines with a
14 turbine rating between 1,000 and 4,000 will now read
15 between 1,000 and 4,100 horsepower. And below that, the
16 next line, that 4,000 will be revised to read
17 4,100 horsepower to 15,000 horsepower.

18 And that addresses an issue with a turbine
19 from -- that Solar manufactures that doesn't have the
20 space allotment for -- for a lower emission for -- for
21 dry NOx burn application.

22 The second table before you has similar types
23 of clarifying edits made to clear up the intent -- or
24 the state -- the language in this part.

25 Similarly, we received comments on the

1 feasibility of these emission limits for turbines in New
2 Mexico, and we made revisions based on that -- on that
3 testimony that's been provided by those stakeholders.

4 MS. KATZ: Do you want to -- so this -- so,
5 Ms. Kuehn, can you just discuss what the -- the
6 Alternative Compliance Plan revisions are?

7 MS. BISBEY-KUEHN: Sure. So we're getting
8 towards the end of Subsection B that establishes the
9 emission standards again for engines and turbines.

10 We have modified Paragraph (9) to specifically
11 identify the federal regulations that define emergency
12 use engine, which we think is appropriate, and that
13 change has been made.

14 And in addition, we've created a new Paragraph
15 (10) that provides an overview of what the intent of the
16 Alternative Compliance Plan is and what it does.

17 And we're going to be going through that now,
18 and I really apologize for this lengthy slide. There's
19 going to be several lengthy slides covering this topic.
20 And I won't go through -- I won't read this for you
21 verbatim, but -- since I've already gone and provided a
22 high-level overview.

23 But again the Alternative Compliance Plan
24 allows owners and operators to determine an alternative
25 method of compliance for an engine or turbine fleet.

1 And so long as those reductions are equivalent to the
2 emission standards and they follow the prereview by the
3 third-party consulting firm and that plan is posted for
4 public notice and owners and operators are obligated to
5 address any issues, the Department finds that this is a
6 reasonable alternative to meeting the formal numerical
7 emission standards under this part.

8 MS. KATZ: And I'll just note that we are
9 missing some of the paragraphs for the actual
10 Alternative Compliance Plan on these slides. You can
11 find the full paragraph list of Paragraph (10), I
12 believe, in -- in the rule.

13 MS. BISBEY-KUEHN: I think that I got
14 everything in here.

15 MS. KATZ: Okay. I'm just seeing Paragraph
16 (10), and I'm not seeing the subparagraphs to it, in the
17 slides.

18 MS. BISBEY-KUEHN: Oh, I'm sorry. Okay.

19 MS. KATZ: Yes.

20 MS. BISBEY-KUEHN: No. I did --

21 MS. KATZ: So --

22 MS. BISBEY-KUEHN: Okay. So --

23 MS. KATZ: I was just pointing that out.

24 MS. BISBEY-KUEHN: -- those -- yeah. Thank
25 you for that.

1 So I did go -- I did discuss in detail kind of
2 what those already contain, and I can -- if it's
3 helpful, I can bring that up on a separate slide. That
4 is an oversight. Okay.

5 But essentially it's -- you know, owners and
6 operators are required to send the proposal to a third
7 party for evaluation, they make -- they address the
8 reasonableness and appropriateness of the proposal, make
9 their findings available to us, then which we post on
10 the web site and make that available for public comment.

11 So I won't -- I won't go through that again,
12 but we are -- we're now at the second alternative, which
13 is the alternative emission standard, which is separate
14 from the Alternative Compliance Plan, in that the
15 alternative emission standard is a -- is a standard that
16 is set for a specific engine or turbine that is unable
17 to comply under an Alternative Compliance Plan.

18 And we did not think it was reasonable to just
19 simply exempt those units from requirements under this
20 part. We believe that those engines and turbines should
21 go through a technical and economic justification to
22 determine what emission standards those -- those units
23 could meet, could achieve, and -- and that the
24 Department would then issue a federally enforceable
25 alternative emission standard for those specific

1 circumstances.

2 And the request for an alternative emission
3 standard must follow the same provisions that we've
4 outlined for the Alternative Compliance Plan.

5 And this slide speaks to a new Paragraph (12)
6 that we inserted, as well, that allows for short-term
7 replacements of engines, for any engine subject to this
8 part, consistent with the air quality permits containing
9 provisions for those short-term replacement engines.

10 So that is -- that is a concept that currently
11 exists in our NSR permitting program, and it allows a
12 short-term replacement engine to be utilized so long as
13 the emissions from the unit are less -- are equal to or
14 less than the original unit and the air dispersion
15 properties of the stack tests and the pollutants that
16 are emitted from a stack are equivalent -- from an
17 equivalent amount of buoyancy, heat, velocity and other
18 parameters.

19 So this -- this is simply aligning with a
20 requirement that's already provided for in -- in our
21 permits.

22 MS. KATZ: Can you briefly summarize the
23 revisions that were made for the monitoring requirements
24 for engines and turbines?

25 MS. BISBEY-KUEHN: Yes. Thank you.

1 So in each section of the rule, we have
2 Paragraph C, which is the monitoring requirements.
3 These are the monitoring, the inspections and the
4 testing and other test -- parametric monitoring
5 requirements that are -- that owners and operators must
6 comply with in order to demonstrate compliance with the
7 numerical emission standard of the -- of this part.

8 So we have received several comments on this
9 section. We've made -- we've aligned things better
10 to -- to move -- we've moved, for instance, that first
11 bit of language that's -- that was struck out, that
12 required units to be documented if they were taken out
13 of -- taken out of use for routine maintenance or
14 unscheduled repairs for more than 24 hours. That has
15 been removed. That was -- that's actually a
16 recordkeeping requirement, and that is now covered under
17 recordkeeping.

18 Similarly, we had requests for -- from
19 operators that are maintaining equipment that's
20 consistent with an applicable federal New Source
21 Performance Standard or National Emission Standard for
22 Hazardous Air Pollutant requirement to be deemed in
23 compliance with this maintenance requirement, and we
24 agree that's -- that that is a reasonable provision.

25 We've made other minor modifications to this

1 Paragraph C that -- that requires simply that owners and
2 operators operate their catalytic converters in
3 accordance with the manufacturer specifications.

4 And Paragraph (4) has been amended to specify
5 when the initial compliance testing requirements must be
6 conducted. So this revised language now clarifies when
7 those tests must be conducted for both equipment
8 that's -- that was existing, and then also there's a
9 provision for equipment that's constructed after the
10 source. Those were both -- those were good, necessary
11 additions to revise those testing requirements.

12 In addition, we had a request to use an
13 alternative load calculation methodology than what is
14 provided above. We agreed that there are a variety of
15 ways to calculate load and that we are agreeable to --
16 to those alternative methods.

17 This subparagraph (a) requires at what load
18 the engines testing or turbine testing must be done at.
19 As you can see, it's within 10 percent of 100 percent
20 peak or the highest achievable load. We agree that that
21 insertion of that language clarified and did not -- did
22 not change or did not weaken the requirement, but did
23 say essentially what we had in fewer words. And we
24 agree with that -- with that revision.

25 The rest of these requirements from (b)

1 through (e) specify how testing must be conducted, the
2 default time period for a test run, how many tests must
3 be conducted and how pollution and concentrations must
4 be monitored and recorded during the test.

5 Similarly, the next few paragraphs on my slide
6 just provide additional detail on how testing must be
7 conducted.

8 We had an insertion of Paragraph (i) here,
9 which we agree with. Carbon monoxide is used as a
10 surrogate pollutant for volatile organic compounds in
11 other federal regulations, and we agree that that's
12 appropriate. So this paragraph formalizes that. The
13 Department agrees that the results of emissions testing
14 demonstrating compliance with the emission standard for
15 CO may be used to demonstrate compliance with the
16 emission standard for nonmethane, nonethane
17 hydrocarbons.

18 And we did have a request to strike the first
19 clause of this condition in (i), to strike "for
20 emissions testing using a portable analyzer." The
21 Department agrees and will make that -- will make that
22 change. So the use of CO as a surrogate is true
23 regardless of the type of testing that's conducted.

24 The other minor clarifications are being
25 carried over from previous revisions that we've made,

1 and so we're just adopting those similar types of
2 revisions throughout this -- this set of requirements.

3 So changes to this paragraph included the
4 striking of the requirement to scan the equipment
5 monitoring tag. This has been replaced with the date
6 and the time stamp of the event which we discussed under
7 the general provisions section.

8 Sub -- or Paragraph D or the recordkeeping
9 requirements, and these are very minor clarifications
10 that we think that are -- better spell out kind of the
11 intent of what the requirements are. So there's nothing
12 really substantive with any of these revisions before
13 you.

14 And similar to this -- this slide, these are
15 the record -- general recordkeeping requirements that an
16 owner or operator must make during a -- an emission
17 test. So that's what covered -- what is covered under
18 (2)(a) through (2)(g).

19 And if there's any specific questions, I'm
20 happy to answer those, but I won't -- I won't read you
21 what is right before you on the slide.

22 MS. KATZ: And I think it's (h) now, right?
23 (a) through (h).

24 MS. BISBEY-KUEHN: Yes. Yeah. (a) through --
25 thank you.

1 Again so the modifications to Paragraph (3)
2 simply adopt other provisions we'd -- revisions made
3 elsewhere, and same with those that are the revisions
4 that were made to Paragraph (4).

5 That is the conclusion of this presentation.

6 HEARING OFFICER ORTH: Thank you, Ms. Kuehn
7 and Ms. Katz.

8 So as I understand it, we're going to proceed
9 through the witnesses of the other parties before Board
10 questioning.

11 Does that also apply to party questioning,
12 Ms. Katz, or only Board questioning?

13 MS. KATZ: Ms. -- Madam Hearing Officer, I
14 think you might want to make sure with the rest of the
15 parties, because I wasn't certain that engines was one
16 of the topics that we were going to be doing -- putting
17 every party on. I'm fine with that, but if -- I don't
18 know how the other parties feel about that, with this
19 topic.

20 HEARING OFFICER ORTH: Okay. Specifically as
21 to Section 113, my understanding is that we were going
22 to hear from NMOGA, IPANM, Kinder Morgan, GCA, CDG, and
23 on Friday the National Park Service.

24 MS. KATZ: Correct. And I think that this was
25 one of the larger topics that maybe we weren't going to

1 try to present all the parties before Board questions
2 necessarily. But again I'll defer that over to the
3 other parties.

4 HEARING OFFICER ORTH: All right.

5 I see Ms. Gutierrez on the screen.

6 Ms. Gutierrez?

7 MS. GUTIERREZ: Thank you, Madam Hearing
8 Officer.

9 I do have a few questions for Ms. Kuehn, and
10 I'm happy to ask them later if that -- if the Board and
11 parties think that that would be best, or, Ms. Katz, you
12 direct me on the next best step here.

13 MS. KATZ: So my understanding that -- is that
14 cross would still be done of the witnesses as a -- of
15 each party's witnesses as a panel, so not as the
16 Department does, so our witnesses would be offered for
17 cross, but then the difference is whether then the Board
18 then asks some questions or whether we wait until all
19 the parties go and then the Board asks questions.

20 HEARING OFFICER ORTH: All right. Thank you.

21 Mr. Butzier, comments?

22 MR. BUTZIER: Yeah. Thank you, Madam Hearing
23 Officer.

24 We don't have an opinion one way or another on
25 which is the best approach. So we're willing to go with

1 whatever other folks prefer.

2 HEARING OFFICER ORTH: All right. Thanks.

3 Ms. Fox?

4 MS. FOX: Thank you, Madam Hearing Officer.

5 I just wanted to remind everybody that we do
6 have a surrebuttal witness on engines, Dr. Orozco, on
7 Wednesday, and given his tight schedule, it would be
8 better for him to be crossed at the time that he gives
9 his surrebuttal and for the Board to ask questions
10 rather to bring -- instead of bringing him back, if
11 that's possible.

12 HEARING OFFICER ORTH: All right. Thank you
13 for that.

14 So let's proceed, then, I guess, with -- oh, I
15 see Mr. Hiser.

16 Mr. Hiser?

17 MR. HISER: I have nothing to add, just is if
18 you were doing questions now, I will have a question.
19 Otherwise I'm happy to wait.

20 HEARING OFFICER ORTH: Okay. Stay on the
21 screen, then.

22 I think probably the best thing to do is to
23 have party questioning and Board questioning as to
24 Section 113 and not try to do collective questioning
25 until we get to 114 through 126.

1 That's what I understand you want to do,
2 Ms. Katz.

3 MS. KATZ: I'm -- I mean, I'm okay either way.
4 If the other parties are okay waiting for Board
5 questioning, then -- then I think that that's warranted.
6 I still think that probably the other party questioning
7 should happen now after each party.

8 HEARING OFFICER ORTH: All right.

9 So, Mr. Hiser, if you would please go ahead.

10 MR. HISER: Thank you, Madam Hearing Officer.

11 CROSS-EXAMINATION

12 BY MR. HISER:

13 MR. HISER: I have, I guess, one question
14 for -- and I think it's for Ms. Kuehn, but it may be for
15 Ms. Kuehn and Mr. Palmer jointly.

16 And that is that you mentioned in your
17 testimony that NMED had looked to a number of other
18 state programs, and I think you mentioned perhaps
19 Colorado and Pennsylvania's GP-5 permit program. And
20 then the Department showed and we appreciate a number of
21 changes to your initial proposal, leading to the
22 September 16th proposal.

23 Is the -- is the reason that we see changes
24 because in part the Department recognized that like the
25 GP-5 permit program might have other exemptions or off

1 ramps that were not initially recognized in your review
2 of those programs, or you determined that those programs
3 regulated units that are different in fuel type or scale
4 from those used in New Mexico?

5 MS. BISBEY-KUEHN: Yes.

6 MR. HISER: That was my only question, Madam
7 Hearing Officer.

8 HEARING OFFICER ORTH: All right. Thank you.

9 Ms. Gutierrez, do you have questions?

10 MS. GUTIERREZ: I do. Thank you, Madam
11 Hearing Officer.

12 CROSS-EXAMINATION

13 BY MS. GUTIERREZ:

14 MS. GUTIERREZ: Ms. -- I think all of these
15 questions are going to be for Ms. Kuehn.

16 Thank you, Ms. Kuehn, for your testimony on
17 engines and turbines.

18 My questions are really clarifying questions
19 that relate to the alternate compliance options just to
20 make sure that we understand the process.

21 In Paragraph B.(10)(a), the alternate
22 compliance option asks the operator work with a
23 third-party consultant to prepare that underlying
24 analysis, and then (10)(d), the Department is asking the
25 proponent of the alternate option to assist in -- with

1 responses to questions. Both of these paragraphs are
2 referenced in Paragraph (11) so they'd apply in either
3 of the ACP or the AES process.

4 The question is are these provisions intended
5 to assist the Department in the face of resource
6 constraints, but ultimately the final decision will be
7 that of the Department's?

8 MS. BISBEY-KUEHN: That's correct.

9 MS. GUTIERREZ: Great. Thank you.

10 With regard to a showing of economic
11 feasibility in Paragraph B.(11), is it the Department's
12 expectation that an operator could show and should use
13 standard methodologies developed by EPA, for example,
14 under its Cost Control Manual to determine cost
15 effectiveness?

16 MS. BISBEY-KUEHN: Yes. That would be an
17 acceptable method.

18 MS. GUTIERREZ: Thank you.

19 And is it true that in the recent past, I
20 think it was 2019, in the context of regional haze
21 rulemaking, NMED determined that an appropriate
22 anticipated cost effective threshold for ton of NOx
23 reduced would be equal to or less than \$7,000 per ton?

24 MS. BISBEY-KUEHN: The Department developed a
25 screening threshold for modeling analysis that was

1 \$7,500 per ton, I believe. So that wasn't the cost
2 effectiveness threshold necessarily, but a screening
3 threshold that was used to determine what sources should
4 be modeled.

5 MS. GUTIERREZ: Okay.

6 And would you agree that that threshold, that
7 cost effectiveness was consistent with thresholds that
8 we've seen determined by other regulatory agencies, both
9 state and federal, when implementing control standards
10 for NOx reductions?

11 MS. BISBEY-KUEHN: There -- there's a range of
12 accepted cost effectiveness values. It depends on the
13 source type.

14 MS. GUTIERREZ: But in general, they were --
15 we've consistently seen -- do you agree that we've
16 consistently seen cost per ton somewhere around, you
17 know, Pennsylvania's 3,000 or 3,500, 7,000 in -- 7,500
18 in New Mexico?

19 MS. BISBEY-KUEHN: Yes.

20 MS. GUTIERREZ: Okay. Thank you.

21 And I do have one last set of questions, and
22 they relate to Paragraph B.(11)(c). This section asks
23 for technical analysis, which makes sense, but it also
24 specifically asks for technical analysis of any previous
25 modifications of the source and a determination whether

1 such modifications meet the definition of reconstructed
2 source such that the source should be considered a new
3 source under federal regulation.

4 In conducting this analysis, is it the
5 Department's expectation that the operator would be
6 relying on EPA guidance regarding whether a modification
7 was triggered pursuant to federal regulation?

8 MS. BISBEY-KUEHN: Yes.

9 MS. GUTIERREZ: And then just taking a step
10 back, and from a bigger picture perspective, can you
11 help me understand what is the purpose of this
12 particular analysis as a part of this section?

13 MS. BISBEY-KUEHN: It's an affirmative
14 demonstration by an owner or operator that they have not
15 reconstructed the engine or modified the engine such
16 that they've triggered reconstruction as the term is
17 used on federal Clean Air Act.

18 MS. GUTIERREZ: So then let's say an operator
19 completes this evaluation and determines in 2010 the
20 turbine was modified, meets the definition of a
21 reconstructed source and for purposes of federal law as
22 new as of 2010.

23 How would that impact this analysis under this
24 rule, meaning would that turbine still be considered
25 existing for purposes of the effective date of this Part

1 50?

2 MS. BISBEY-KUEHN: Correct, if that analysis
3 occurred in 2010 and that unit had been treated as new
4 at the time that the analysis was done.

5 MS. GUTIERREZ: Okay. So the focus really is
6 between the effective date and some time in the future
7 to ensure that the unit has not been reconstructed under
8 federal regulation.

9 MS. BISBEY-KUEHN: Yes.

10 MS. GUTIERREZ: Okay.

11 Thank you. I think that sums up my questions.
12 Thank you very much, Ms. Kuehn.

13 HEARING OFFICER ORTH: Thank you.

14 Mr. Rose?

15 MR. ROSE: Thank you, Madam Hearing Officer.

16 CROSS-EXAMINATION

17 BY MR. ROSE:

18 MR. ROSE: Just a couple of questions. One's
19 a follow-up, I think, to Ms. Gutierrez' question in
20 terms of reconstruction in federal law.

21 Are you referring to the federal New Source
22 Performance Standard program in the regs at 40 CFR Part
23 60, or are you looking at some other federal definition
24 to make the decision on when a source has been
25 reconstructed for purposes of this rule?

1 MS. BISBEY-KUEHN: We're referring to the
2 federal New Source Performance Standards definition of
3 reconstruction.

4 MR. ROSE: Okay. Thank you.

5 And in terms of the proposal here, just want
6 to get some clarification on the -- on to what
7 factors -- whether -- well, let me start again.

8 Have you quantified the difference in expected
9 emissions reductions from your current proposal than the
10 one that was published when the hearing started, the
11 original petition proposal? Have you looked at what
12 differences your changes may have in terms of emissions
13 reductions, and have you quantified those?

14 MS. BISBEY-KUEHN: Yes.

15 MS. KATZ: And I believe that's a question for
16 Mr. Palmer, as well.

17 MR. ROSE: Yeah. Either -- from my
18 perspective, either can answer. It's fine.

19 MS. BISBEY-KUEHN: Mr. Palmer may have that
20 number before him. I don't have that number.

21 MR. ROSE: I wasn't looking for the exact
22 number, but that's fine.

23 MS. BISBEY-KUEHN: Oh, okay.

24 MR. ROSE: Just that you did it.

25 MS. BISBEY-KUEHN: We did the analysis. Yes.

1 Thank you.

2 (Simultaneous discussion.)

3 MS. KATZ: It was just -- it was just a yes or
4 no, I believe, right?

5 MR. ROSE: Yes. I mean, if he has it, that's
6 fine, but I wasn't looking --

7 MR. PALMER: I've got it.

8 MR. ROSE: -- to identify the actual what the
9 changes were.

10 MR. PALMER: Yeah. Because we -- the original
11 emission limits were very aggressive, as you -- I think
12 you'll probably agree, and so the estimated emission
13 reductions went from about 18,000 ton per year of NOx to
14 about 5,000 ton per year of NOx.

15 MR. ROSE: And -- and I gather -- and maybe
16 you're not the right person to ask, or Ms. Kuehn is.

17 Did the Department have the modelers go back
18 and figure out what the difference would be in terms of
19 ambient ozone concentrations for this change or any of
20 the other changes that we're going to talk about later?

21 MS. BISBEY-KUEHN: The model was not rerun
22 after the revisions were made to the -- to the proposal.

23 MR. ROSE: Thank you.

24 And one other clarification.

25 In response to Ms. Gutierrez, you talked about

1 cost effectiveness determinations, or whatever you want
2 to call them.

3 Did you identify or explain what criteria you
4 applied to determine whether costs were cost effective?

5 The prior version of the statute basically
6 incorporated the federal definition of reasonably
7 available control technology, but that's been removed,
8 and I'm curious as to what criteria the Department -- if
9 it did, what criteria you applied to determine whether
10 or not the reductions were justified or the costs were
11 justified by the reductions or if, in fact, you did
12 provide -- apply some criteria.

13 MS. BISBEY-KUEHN: Mr. Palmer, do you want to
14 answer that?

15 I can say that we followed standard accepted
16 cost effectiveness methodologies, and we referred to
17 many existing regulations on federal New Source
18 Performance Standards on what was an accepted cost
19 effectiveness dollar. And all of that is spelled out in
20 great -- in detail in great amounts of detail in each of
21 the cost spreadsheets in our direct testimony.

22 MR. ROSE: And I don't know if Mr. Palmer
23 wants to add to that or not. I guess I'll let him
24 decide, but --

25 MS. KATZ: I guess, Mr. Rose, I'd ask if you

1 have specific issues with again what was laid out
2 extensively in our direct and rebuttal testimony, it
3 would be helpful to point to that.

4 MR. ROSE: What I was looking for wasn't so
5 much the explanation as to was there a standard
6 methodology by which you drew lines or did you look at
7 each section individually and make judgments as to cost
8 effectiveness.

9 MS. KATZ: And I believe that that's all
10 spelled out in the testimony.

11 MR. ROSE: It was as to the direct. I'm just
12 wondering whether that approach changed in terms of what
13 you're now proposing as changes in response to other
14 proposals.

15 MS. KATZ: And again I believe that the
16 Department made that all very clear in its rebuttal
17 testimony, in terms of its changes.

18 MR. ROSE: Well, as I --

19 MS. KATZ: -- that it made in response to the
20 testimony that was provided.

21 MR. ROSE: It's my understanding, though, that
22 there have been some additional changes to particularly
23 this section and maybe to others since the revised --

24 MS. KATZ: Do you want to point out -- do you
25 want to point to what those are?

1 MR. ROSE: I was looking at more generally,
2 was the same set of criteria applied, or did you, in
3 fact, do an economic analysis of these most recent
4 proposed changes.

5 MS. KATZ: That were proposed by industry? Is
6 that what you're asking?

7 MR. ROSE: That you're incorporating in the
8 draft we just saw the red-line/strike-out for.

9 MS. KATZ: Do you -- again do you want to ask
10 about a specific provision? Because we've testified
11 about each of those suggestions.

12 MR. ROSE: And I was just more interested in
13 generally what was applied, not as to specific
14 proposals, if there was something that was generally
15 applied, and whether or not they will be -- that -- that
16 criteria will be applied in subsequent sections. So I
17 don't have to ask the same question on the subsequent
18 sections.

19 MS. KATZ: I mean, I believe that they --
20 we've already -- the witnesses have already walked
21 through and stated the basis for the revisions that were
22 made.

23 MR. ROSE: And what I was looking at in terms
24 of an economic analysis was further analysis given to
25 those changes as opposed to what was in your rebuttal

1 testimony, and if so, what -- what that analysis was,
2 because you -- as I view this, you've made changes,
3 obviously, since rebuttal was filed. So just wanted to
4 make sure that those are factored into -- that it hasn't
5 changed the analysis that, in fact, has been testified
6 to.

7 MS. KATZ: On the costs? Is that what you're
8 referring to?

9 MR. ROSE: Correct. And cost effectiveness
10 generally.

11 MS. KATZ: I believe in some instances it has.

12 Brian -- Mr. Palmer, do you -- do you have
13 anything to say about that?

14 I guess, are we talking about all the rule
15 sections, or are we just talking about engines and
16 turbines here?

17 MR. ROSE: Well, my understanding is that if
18 the same criteria applied to all the others, then
19 that -- we don't have to ask that with respect to the
20 others. I'm just wanting to see if the methodologies
21 change or if you applied the same methodology to these
22 changes that you did -- that was testified to in your
23 direct and rebuttal. If you did a cost effective
24 analysis on the additional changes you're now
25 recommending.

1 HEARING OFFICER ORTH: Mr. Palmer, do you
2 understand the question, and can you answer it?

3 You're muted. Okay. Now.

4 MR. PALMER: Okay. Thank you. Thank you.
5 Sorry.

6 In terms of engines, we -- the revised limits
7 are based on the achievability of the technology that is
8 reflected in the testimony we received. And that
9 inherently reflects the cost effectiveness of that
10 technology and doesn't -- so we didn't go into more
11 detail than that necessarily.

12 MR. ROSE: Okay. That's what I was looking
13 for, to see if there was more detail than as to those
14 changes like you did with the others.

15 Thank you, Madam Hearing Officer. That's all
16 the questions I have.

17 HEARING OFFICER ORTH: All right. Thank you,
18 Mr. Rose.

19 Any other questions by counsel or parties?

20 I see Mr. Baake.

21 Mr. Baake?

22 MR. BAAKE: Oh, thank you, Madam Hearing
23 Officer.

24

25

1 CROSS-EXAMINATION

2 BY MR. BAAKE:

3 MR. BAAKE: I just have a somewhat technical
4 question. Hopefully -- I'm not sure Ms. Kuehn or
5 Mr. Palmer, who best to answer this.

6 But I'm trying to understand this discussion
7 of the Ohio stack emissions data that was discussed in
8 the surrebuttal as a basis for relaxing these standards.

9 So I did -- I did see the link, but maybe give
10 me a little bit of an idea. What are these -- what type
11 of engines are included in this database?

12 MR. PALMER: Yeah. I can -- I can answer
13 this.

14 MS. BISBEY-KUEHN: Okay.

15 MR. PALMER: These are natural gas-fired
16 compressor engines located in Ohio, and some of them are
17 subject to annual testing, some of them are subject to
18 periodic testing. And so we were able to look at those
19 data from Ohio, and they're comparable, they're -- to
20 the engines in Colorado.

21 And so we looked at those data by engine type
22 and also by horsepower, and then compared that
23 information in those data to the information in the
24 technical testimony submitted in response to the rule,
25 and compared the emission limits in that Ohio data -- or

1 the achievable emission rates in those -- in that Ohio
2 data to the limits that have been proposed and that were
3 discussed in the technical testimony, and then used that
4 to help support the development of the final rules.

5 MR. BAAKE: Well, I guess my question was --
6 that I didn't understand is --

7 MR. PALMER: Um-hum.

8 MR. BAAKE: -- are these engines in Ohio
9 firmly implementing all possible NOx controls that were
10 discussed in -- elsewhere in the testimony?

11 MR. PALMER: Yes. Yep.

12 MR. BAAKE: So -- okay. So those engines
13 would be implementing -- and is that under a state
14 regulation or new source -- or a nonattainment
15 regulation, or what --

16 MR. PALMER: It's -- it appears to be under a
17 variety of things. There's one column -- there's a fair
18 amount of detail in the Ohio data, and it often lists
19 what limit the engine is subject to and the basis for
20 it. A lot of them are subject to NSPS. Some of them
21 are subject to -- it appears to be a RACT limit.

22 MR. BAAKE: Okay.

23 So -- so there would -- all of them would be
24 subject to -- subject to catalytic reduction, for
25 example?

1 MR. PALMER: Those engines, if you look at the
2 data in Ohio, they are not using SCR. They're using
3 NSCR, but not selective catalytic reduction.

4 MR. BAAKE: Okay.

5 So I guess my -- just so I'm trying to
6 understand it analytically. So those -- those engines
7 in Ohio, if you wanted to reduce NOx further from them,
8 your understanding is it's not -- wouldn't -- there's no
9 technical way you could do that. So that's why that's a
10 good baseline, understanding what differentiation.

11 That -- am I understanding that?

12 MR. PALMER: I -- I think so.

13 MR. BAAKE: That's all of the -- that's the
14 only thing I wanted to have clarified for now.

15 Thank you so much.

16 HEARING OFFICER ORTH: Thank you.

17 Any other parties or counsel have questions of
18 the Department panel?

19 I don't see anyone else on the screen.

20 I'm going to turn to the Board.

21 If you're an attendee on this platform and
22 have a question, please reach out through chat.

23 Madam Chair, do you have questions?

24 CHAIR SUINA: Thank you, Madam Hearing
25 Officer. I don't have any questions at this time.

1 HEARING OFFICER ORTH: Thank you.

2 Vice-Chair Trujillo Davis?

3 VICE-CHAIR TRUJILLO DAVIS: Thank you. I
4 don't have any questions at this time either.

5 HEARING OFFICER ORTH: All right.

6 Member Cates?

7 MEMBER CATES: No questions at this time.
8 Thank you.

9 HEARING OFFICER ORTH: Thank you.

10 Member Bitzer?

11 MEMBER BITZER: No questions. Thank you.

12 HEARING OFFICER ORTH: Thank you.

13 Member Duval?

14 I believe he had to step away for class.

15 Member Garcia?

16 MEMBER GARCIA: No questions. Thank you.

17 HEARING OFFICER ORTH: Thank you.

18 And Member Honker.

19 MEMBER HONKER: No questions. Thanks.

20 HEARING OFFICER ORTH: All right. Thank you.

21 We have been going a little more than two
22 hours. So let's take a break and return at 11:20,
23 please.

24 (Proceedings in recess from 11:06 a.m. to
25 11:20 a.m.)

1 MR. HISER: Madam Hearing Officer, if you'd
2 like to look for a Justin Lisowski. He will be the
3 NMOGA witness.

4 HEARING OFFICER ORTH: I will do that.
5 Jill, Jim, Jim, Julia, Justin. Got it.

6 MS. KATZ: Madam Hearing Officer?

7 HEARING OFFICER ORTH: Yeah.

8 MS. KATZ: I was going to do a little
9 redirect.

10 MR. HISER: Oh.

11 HEARING OFFICER ORTH: Yeah. I'm sorry. I
12 did manage to rush past that, didn't I --

13 MS. KATZ: Thank you.

14 HEARING OFFICER ORTH: -- before we -- before
15 we took a break.

16 Go ahead, Ms. Katz.

17 REDIRECT EXAMINATION

18 BY MS. KATZ:

19 MS. KATZ: Okay. Just quickly for Mr. Palmer,
20 did the other parties present testimony regarding the
21 cost effectiveness of certain proposals and request
22 revisions based on that cost effectiveness?

23 MR. PALMER: Yes, they did.

24 MS. KATZ: As well as technical feasibility?

25 MR. PALMER: Yes, they did.

1 MS. KATZ: And if the Department accepted a
2 revision from an industry party, would it be safe to
3 assume that the costs would come down and that it would
4 be technically feasible?

5 MR. PALMER: Yes, both.

6 MS. KATZ: Okay. Thank you.

7 That's all I have.

8 HEARING OFFICER ORTH: All right. Thank you,
9 Ms. Katz and Mr. Palmer.

10 Mr. Hiser. Let's get you back.

11 MR. HISER: Thank you, Madam Hearing Officer.

12 Our next witness will be Justin Lisowski.

13 HEARING OFFICER ORTH: All right.

14 If Mr. Lisowski would join us on screen, or
15 join you on screen, I suppose, and spell his name for
16 us.

17 MR. LISOWSKI: Do I sound all right? Can
18 everybody -- can everyone hear me here?

19 HEARING OFFICER ORTH: Yes.

20 MR. LISOWSKI: Perfect.

21 Yeah. My name is Justin Lisowski, and that's
22 a standard spelling for Justin, Lisowski is spelled
23 L-I-S-O-W-S-K-I.

24 HEARING OFFICER ORTH: Thank you.

25 If you would raise your right hand.

1 Do you swear or affirm to tell the truth?

2 MR. LISOWSKI: I do.

3 HEARING OFFICER ORTH: Thank you.

4 Go ahead, Mr. Hiser.

5 JUSTIN LISOWSKI

6 (Relating to Topic Order 24)

7 having been first duly sworn or affirmed, was
8 examined and testified as follows:

9 DIRECT EXAMINATION

10 BY MR. HISER:

11 Q. So, Mr. Lisowski, can you tell us what your
12 involvement is in this proceeding?

13 A. Sure. So the New Mexico Oil and Gas
14 Association asked my employer, Valor EPC, to analyze the
15 NMED proposed rules. And so my subject expertise is
16 engines, turbines and compressors, and so look at it
17 with associated doc -- and the associated documents and
18 draft a technical commentary focused on technical
19 infeasibility, impracticality and economic challenges.

20 Q. Is NMOGA Exhibit Number 31, which was
21 previously admitted, an accurate copy of your resume?

22 A. Yes, it is.

23 Q. And could you please state your qualifications
24 as they relate to your participation in today's hearing?

25 A. Sure. I graduated from Colorado State

1 University with a bachelor of science in mechanical
2 engineering, as well as a master's of science in
3 mechanical engineering. My master's research was
4 establishing a set of tools, diagnostic tools to
5 evaluate precombustion chamber retrofits in large bore
6 natural gas engines, in efforts to create a tool to
7 improve the emissions of those prechambers.

8 My professional career was spent most of my
9 time in the upstream operator, Encana Oil & Gas, which
10 is now Ovintiv Incorporated. And I had a series of
11 engineering positions, all of them in a facility type
12 role or rotating equipment. I spent most of my time
13 with Encana as a rotating -- rotating equipment
14 engineer, as well as a manager of a rotating equipment
15 team focused on -- similar to what we're talking about
16 right here, you know, looking at ways to make sure that
17 we're complying with our -- with our emissions criterias
18 on our -- on our engines, as well as finding solutions
19 to -- to meet those emissions standards.

20 In 2001 I started at Valor EPC, and I wear
21 multiple hats at Valor, but my primary responsibilities
22 is a senior project manager and a rotating equipment
23 engineer.

24 And then in 2018 I received my PE, or
25 professional engineering licensure, in the State of

1 Colorado.

2 Q. Thank you.

3 Do NMOGA Exhibits A3 and 43 reflect your
4 direct and rebuttal technical testimony filed in this
5 matter?

6 A. Yes. That's correct.

7 Q. Do you have any changes to those exhibits?

8 A. No.

9 Q. And you adopt them as your direct and rebuttal
10 testimony in this matter?

11 A. I do.

12 Q. Okay.

13 Did you rely on NMOGA Exhibits 4, 6, 8, 9, 31
14 and 43 as sort of supplements to your primary testimony?

15 A. I did.

16 Q. And have you prepared a summary of your direct
17 and rebuttal testimony?

18 A. I have.

19 Q. Okay.

20 And do you have some slides that you'd like to
21 share with the Board this morning?

22 A. I do. And I'll attempt to share them on the
23 platform.

24 Q. Make sure that Madam Hearing Officer has
25 enabled you as a presenter first.

1 A. Okay. That will be helpful.

2 THE REPORTER: And Mr. Lisowski, this is the
3 court reporter.

4 I'm going to ask you to slow down speaking a
5 little bit for me.

6 MR. LISOWSKI: Okay. I will do my best. Just
7 holler if I'm getting a little carried away.

8 THE REPORTER: I can't holler. They always
9 mute me. So --

10 MR. LISOWSKI: Okay.

11 THE REPORTER: -- please try.

12 MR. HISER: Ms. Orth.

13 HEARING OFFICER ORTH: Yes, sir.

14 MR. HISER: You did. Okay. Thank you.

15 MR. LISOWSKI: You should get -- can I
16 adjust --

17 MR. HISER: Justin, can you make that bigger?

18 MR. LISOWSKI: Yes, sir.

19 How's that?

20 MR. HISER: No. We're seeing your presenter
21 view. So --

22 MR. LISOWSKI: Well, let me just swap the
23 screen real quick. Give me one moment.

24 I'm not quite sure. Let's see.

25 MR. HISER: Sometimes you have to go back out

1 and then reshare.

2 MR. LISOWSKI: Yeah.

3 How's that?

4 MR. HISER: Thank you. We can see your slides
5 now.

6 Q. Mr. Lisowski, is it safe to say that there
7 were a number of initial issues that were flagged by you
8 and other industry parties with the first proposal from
9 the New Mexico Environment Department?

10 A. Yes. I would say -- and that was what my
11 primary testimony was based upon. Yes.

12 Q. And so if we look at your next slide, is that
13 sort of the summary of the number of issues that have
14 been discussed between you and other -- and both the
15 Department's experts and other industry experts?

16 A. Yes. This is, you know, the key takeaways
17 from all of my testimony, direct and rebuttal, and kind
18 of some -- you know, the highlighted points that I would
19 talk about primarily, but a lot of them have been
20 resolved in some fashion.

21 Q. And so if the Board were to decide to vary
22 from the Department's proposal that we presently see,
23 you would think they would want to go back and look at
24 some of this testimony to ensure that they were
25 comfortable with making those changes from the

1 Department's position.

2 A. Yes.

3 Q. Correct? Okay.

4 With that, maybe we can dispense with those
5 things that have been reached agreement between industry
6 and the Department and maybe just focus a little bit on
7 some of the differences between the types of engines and
8 turbines and how that will be relevant for the Board's
9 consideration, just so they understand how these engines
10 work as they're given a bunch of technical testimony.

11 A. Absolutely, yes. So I'm going to -- can I
12 just touch on a couple of these topics based upon what
13 you mentioned there, and -- and try to add some
14 additional information for the Board so that as they're
15 getting additional testimony they've got some
16 information that helps with context.

17 I think the most important context and
18 information to provide would be around LEC, NSCR and SCR
19 technology, just to kind of help dispel some -- some
20 assumptions that might have been made either
21 inadvertently or intentionally by various parties
22 involved in this.

23 And the LEC is considered your -- low emission
24 control technologies, and it's been, you know, greatly
25 simplified, and it's much complex than other testimony

1 has implied. And in context for what we're talking
2 about, LEC is applicable just to the lean-burn engines
3 only. So it's not just a one size fits all category,
4 but rather it's kind of a generic term of equipment that
5 can reduce the engine emissions, primarily NOx, on these
6 lean-burn engines.

7 And it can include a wide range of
8 technologies, including high-pressure fuel injection,
9 prechambers, turbocharger upgrades, piston design,
10 micropilot, solar head design. You know, it's -- it's a
11 very sweeping category.

12 And the other important thing is not every LEC
13 can be applied to every single engine type. For
14 instance, smaller bore engines, such as the Caterpillar
15 G3500 or the Waukesha L7042 GLs, they don't really have
16 the physical space to have a prechamber, which is
17 crucial to get to your ultralow NOx levels.

18 And that's, one, because of the physical
19 architecture of the engine and space limitations -- in
20 the next slide I've got a little illustration that can
21 help show that a little bit -- as well as maintain the
22 proper prechamber to cylinder -- cylinder clearance
23 volume ratios. And so -- and that would be what's
24 needed for a prechamber to be effective.

25 So it's -- it's a blanket solution, and the

1 other -- the other item that's important to -- to
2 mention is that a lot of existing engines in service
3 already, and Mr. Palmer kind of alluded to this already,
4 have all the LEC that's available to those engines, that
5 vintage of engine, that category, that model -- they
6 already have everything that is available to it that's
7 applicable installed.

8 And in many cases, the lowest NOx level they
9 can achieve is 2 grams per brake -- 2 grams NOx per brake
10 horsepower-hour.

11 Another thing that was mentioned in the NMED
12 testimony that I thought should have additional
13 clarifications is the HOERBIGER solutions for legacy
14 engines. The HOERBIGER solution is Cooper Machinery
15 Services product offerings, and it offers a half gram NOx
16 upgrade for some legacy engines.

17 And although it is a -- you know, a good
18 product offering, it's actually a range of LEC
19 technologies. It's only applicable to a very small
20 subset of engines. It covers about 3 percent of the
21 engines, in sort of -- in New Mexico in these
22 categories. There's a lot of other legacy engines that
23 it doesn't apply to.

24 And so that's the big challenge for
25 low-emission combustion technology. It's just not a one

1 size fits all.

2 In terms of rich-burn engines, it's important
3 that a nonselective catalytic reduction, and that's --
4 it's a passive catalyst for rich-burn engines only. And
5 the reason why it's --

6 THE REPORTER: Excuse me, Mr. Lisowski.

7 Please slow down and start that last one
8 again.

9 MR. LISOWSKI: You bet.

10 So nonselective catalytic reduction, or NSCR,
11 is a passive catalyst system for rich-burn engines,
12 rich-burn engines only. And the reason why they're
13 effective with rich-burns is because rich-burns operate
14 right at a perfect air-fuel ratio, called
15 stoichiometric, and it toggles lean to rich, lean to
16 rich. And it allows your -- your catalyst precious
17 metals can -- so they can load up with the criteria
18 pollutant, and then they can regenerate as they toggle
19 back and forth, a very simplistic description.

20 Q. (BY MR. HISER) And perhaps, Mr. Lisowski, it
21 would be helpful for the Board to explain what you mean
22 by rich versus lean.

23 A. Sure, you bet.

24 So because it operates right at
25 stoichiometric, it allows where it gets slightly air,

1 excess air, where it goes lean, or it goes fuel rich,
2 where it is air deficient, and you're just kind of
3 toggling back and forth.

4 An analogy would be that's exactly how your
5 automobile works. Your automobile is considered a
6 rich-burn engine. And so you've got an NSCR catalyst on
7 your car that works in the exact same manner, other than
8 industrial engines are much more difficult to maintain
9 your -- your control. And that's because in theory they
10 never turn off, whereas your automobile every time it
11 turns off it resets the sensors, and that's what is able
12 to keep your car in compliance.

13 However, in industrial engines you need these
14 multipoint air-fuel ratio controllers. And when I say
15 multipoint, so that it can map across a wide range of
16 operating parameters, whether it be fuel conditions, it
17 could be a compressor loading or whatever you're running
18 off that engine. And then you also get natural drift in
19 your sensors that need to have a recalibration of some
20 sort.

21 So the NSCR is very -- is good at achieving
22 very low NOx levels, but it is limited to your AFR set
23 points, natural drift and then also catalyst
24 degradation.

25 Q. And does field gas present somewhat greater

1 challenge than pipeline quality natural gas --

2 A. It most -- it most certainly can. And
3 typically those challenges would be mostly associated
4 with VOCs and -- on a rich-burn engine, VOCs and CO. On
5 a lean-burn engine, you're trying to control your
6 temperature to reduce your NOx. And so higher fuel Btu
7 can pose some challenges to get those combustion
8 temperatures down for your thermal-generated NOx.

9 The last kind of item that has had, you know,
10 kind of sweeping application is the selective catalytic
11 reduction technology. And those -- that's the SCR. And
12 that's where you have -- you're able to reduce your NOx,
13 which you need a reducing environment, which means you
14 need air-deficient environment. So it's a challenge
15 with your lean-burn engines. So an SCR is only
16 applicable on a lean-burn engine, also a diesel engine,
17 because they're in a similar situation.

18 And what happens is you inject a reagent, as
19 Ms. Kuehn mentioned, downstream of the engine, upstream
20 of your SCR catalyst, and your reagent -- it's -- it's a
21 reducing agent, is what it's called. It's to create an
22 oxygen-deficient environment. And urea is an ammonia
23 mecha -- is an ammonia transport mechanism, basically.
24 So you can use urea, aqueous ammonia, you know, chemical
25 ammonia, although there's some challenges chemically

1 with transporting just pure ammonia.

2 But it can be very expensive to install and
3 operate, and it's disproportionately expensive for
4 smaller engines, and it's because it's a complicated
5 system. It requires onsite power, which is not readily
6 available in many New Mexico operating locations, as
7 well as many locations in a lot of oil fields. And it's
8 very limited, if any, instances of application in oil
9 and gas gathering operations.

10 The next slide I have has an illustration of
11 the SCR to further highlight its complexity. This is
12 just a graphic off of a catalyst manufacturing web site,
13 and the purpose of it is to -- to show a graphic as to
14 how the SCR works, but my intent is to show that it is
15 complicated, and it's not just something you can slap on
16 an engine and have it magically work. It takes a lot of
17 effort to run these in -- in practice.

18 The last slide --

19 Q. So a short way of putting it is that SCR
20 systems require care and feeding?

21 A. Absolutely. And they require baby-sitting
22 like a -- you know, like the diagram may allude to.

23 And I'm not sure if you can make out the image
24 on the -- on the left. That is also in my rebuttal
25 testimony.

1 But the purpose of that image, this little
2 cartoon is just to kind of show your space limitations
3 as to why you can't slap a prechamber on any engine.
4 And the left -- the left engine is a standard sparking
5 ignited engine cutaway, and then the right one is your
6 prechamber, this kind of red -- this red volume.

7 And really what it is is you inject a -- you
8 know, you have a lean mixture in your cylinder, that's,
9 you know, at the edge of your flammability limits, and
10 then you put a rich mixture in your prechamber and
11 ignite it, and it creates a torch that creates a
12 high-energy -- very high-energy emission system to
13 ignite a very lean mixture.

14 And so it's a -- typically a ratio of your
15 about a 1 percent clearance volume, meaning with your
16 cylinders all the way up that volume prechamber needs to
17 be about 1 percent of that volume. And you can see that
18 you can't physically just put one in. It's often built
19 into the architecture of the engine.

20 So I think that's all I want to touch on in
21 terms of LEC and SCR technology, just to kind of help
22 provide some information to the Board to -- to make it
23 through some of these -- this testimony.

24 Q. And so the one area I think where your
25 recommendations varied a little bit from the

1 Department's accepted limits in the September 16th draft
2 is you had recommended a little bit higher carbon
3 monoxide limits for a number of these engines.

4 Would you like to discuss that recommendation
5 and the reasons why?

6 A. Sure. So my testimony touched on CO not
7 needing to be in this rule because it is not a precursor
8 to the ozone creation, and it should be either removed
9 or just mirror the NSPS Quad J, where it's already
10 regulated at 2 grams per brake horsepower-hour.

11 And one of the reasons is because in
12 combustion CO and NOx have an inverse relationship when
13 operating in a lean environment, so excess air. And so
14 as your combustion temps lower to decrease your NOx
15 emissions, your CO will go up. It's -- it's a function
16 of incomplete combustion.

17 And so the reason -- the results become this
18 kind of twofold thing, one where CO rises sharply, and
19 so you put more dependence on your catalyst to reduce
20 it, that's how you reduce your CO, but then also with
21 your decreasing combustion temperatures to achieve these
22 ultralow NOx levels, your catalyst housing temperatures
23 decrease, and you get lower catalyst performance
24 depending on where that catalyst is placed. And it
25 may -- and that's often a challenge with lowering your

1 NOx, is you get this decreased catalyst effectiveness.

2 However, as -- as Ms. Kuehn mentioned and
3 Mr. Palmer mentioned earlier, CO does have utility as a
4 surrogate for VOC measurement. Nonmethane, nonethane
5 hydrocarbon can be sometimes challenging to measure, and
6 so another agency has -- has provided some allowance,
7 which we're very thankful for, to allow for CO to be
8 used as a surrogate as many testing protocols allow.

9 But even if CO -- a low level of CO is not in
10 the rule, you create a pseudolimit while you're using CO
11 as a surrogate to meet your VOCs --

12 Q. And so is it -- I'm sorry.

13 Finish your thought.

14 A. You're good.

15 Q. And so is it your testimony to the Board that
16 if we were to adjust this limit to 2 grams per brake
17 horsepower-hour, that you believe that would still
18 provide good control of VOC while reducing some of the
19 pressure on trying to maintain the NOx limit
20 continuously?

21 A. That -- that's correct.

22 Q. So it helps keep the NOx down where the
23 expectation is without really causing likely an increase
24 on the VOC side.

25 A. Correct. Correct. And if you elected to use

1 CO as a surrogate for your VOC measurements, you have to
2 operate that CO lower anyways to create that -- that
3 surrogacy. Right? So -- but what it does is it gives
4 you a little bit of flexibility, whether it be in
5 wintertime operation, when you can't get your catalyst
6 hot, or if you're having challenges meeting your NOx
7 limits, you can elect to not use your CO as a surrogate
8 and do EPA reference method testing, which is allowed
9 within the rule. It provides you flexibility.

10 Q. Thank you.

11 Were there any other topics from your direct
12 or rebuttal testimony that you wanted to share with the
13 Board, or have we reached the end of what you wanted to
14 discuss?

15 A. We've reached the end of what I'd like to
16 discuss until we get to surrebuttal based upon other
17 testimony.

18 Q. Right.

19 And you have comments about the National Park
20 Service proposal which you're going to hold until we
21 hear what the National Park Service proposal is?

22 A. That's correct.

23 Q. Okay.

24 Thank you very much, Mr. Lisowski.

25 Madam Hearing Officer, he is available for

1 questions from the parties.

2 HEARING OFFICER ORTH: Sorry. Thank you.

3 If you would stop sharing your screen briefly,
4 Mr. Lisowski, I'll be able to see if there are questions
5 of you from the other parties.

6 Okay. I don't see other parties or counsel
7 appearing on screen.

8 I'll turn to the Board Members for their
9 questions.

10 While I'm doing that, if you're an attendee on
11 this platform and have a question, please reach out
12 through the chat.

13 EXAMINATION

14 BY THE BOARD:

15 HEARING OFFICER ORTH: Madam Chair?

16 You're unmuted, Madam Chair.

17 Any questions?

18 CHAIR SUINA: Yes, Madam Hearing Officer. I
19 don't have any questions.

20 HEARING OFFICER ORTH: All right. Thank you.

21 Vice-Chair Trujillo Davis?

22 VICE-CHAIR TRUJILLO DAVIS: Yes. Thank you.

23 And I apologize. Can you pronounce your last
24 name for me again?

25 MR. LISOWSKI: Lisowski.

1 VICE-CHAIR TRUJILLO DAVIS: Lisowski. Okay.

2 Thank you, Mr. Lisowski.

3 MR. LISOWSKI: You're welcome.

4 VICE-CHAIR TRUJILLO DAVIS: I just was
5 reviewing your presentation here, and I thank you for
6 putting this presentation together for us. It helps
7 kind of walk us through and pay attention to things on a
8 more technical level. So I really have just a general
9 question for you.

10 What -- what are you recommending -- I see
11 that you're saying that CO should not be included, but
12 what are you recommending as a change to the rule or in
13 your testimony representing NMOGA as a change to the
14 rule?

15 MR. LISOWSKI: You know, either two approaches
16 with removing CO would be in terms of mirroring the Quad
17 J NSPS at 2 grams or just striking it from the rule as a
18 limit. And the NMED's rebuttal to that was to, you
19 know, allow to use it for a surrogate for VOC
20 measurement. And my argument is that you'll still have
21 to operate your CO as a low level anyways if you want to
22 use it as a surrogate, and so it's kind of a duplicative
23 argument. And so I would like to see it, you know,
24 mirror NSPS.

25 VICE-CHAIR TRUJILLO DAVIS: Okay.

1 And just to confirm, these -- those changes
2 were submitted to the NMED?

3 MR. LISOWSKI: Yeah, in my initial testimony.

4 VICE-CHAIR TRUJILLO DAVIS: All right. Thank
5 you, sir. I appreciate the information.

6 MR. LISOWSKI: No problem.

7 HEARING OFFICER ORTH: Thank you.

8 Member Cates, any questions?

9 MEMBER CATES: No questions here. Thank you.

10 HEARING OFFICER ORTH: Thank you.

11 Member Bitzer?

12 MEMBER BITZER: Yes, Madam Chair, Madam
13 Hearing Officer.

14 Thank you for the testimony. I love learning
15 about engines.

16 I am curious. You're saying that the CO,
17 which is carbon monoxide, isn't a -- isn't a precursor
18 for ozone, if I understood that correctly, and I think
19 it's better left as a talisman for other -- other things
20 that we are trying to measure and reduce.

21 What happens to it? I know it's lethal in
22 high concentrations, can kill you pretty quickly without
23 you even knowing it's coming, but I can't imagine that 2
24 parts is a -- is a lot. But it can accumulate in an
25 area with no wind.

1 What happens to it once it's out in the -- in
2 the open?

3 MR. LISOWSKI: You know, I'm not sure about
4 the atmospheric influences on CO, you know, long-term,
5 you know. But generally speaking, you've got, you know,
6 pretty high destruction efficiency that varies over time
7 as you get callus degradation. But you're able to, you
8 know, reduce it to the -- you know, the NSPS limits on a
9 pretty easy basis, with, you know, certain parameters,
10 of course. But I'm not sure in -- atmospherically what
11 happens to CO.

12 MEMBER BITZER: I can probably find that on
13 the Internet.

14 But thank you.

15 MR. LISOWSKI: You're welcome.

16 HEARING OFFICER ORTH: Okay. Thank you.

17 Member Garcia.

18 Member Garcia, can't hear you.

19 MEMBER GARCIA: Can you hear me now?

20 HEARING OFFICER ORTH: Now, yes.

21 MEMBER GARCIA: Okay. I guess I just need to
22 speak up louder.

23 So, Mr. Lisowski, it sounds like the
24 Department made many of the changes you all suggested.

25 Would you say they made most of the changes

1 you suggested, and then you just have a couple small --
2 well, not small to you, but small ones here that you
3 want them to change?

4 MR. LISOWSKI: Yes. You know, I -- the
5 Department has just done just an excellent job taking in
6 all this testimony and distilling it down. You know, we
7 haven't come out with a slam dunk, of course, and so
8 there's some -- you know, the rule still provides quite
9 a bit of challenge for industry to meet, but it's
10 practical challenge, where it's, you know, we can see a
11 line of sight to ways to achieve it.

12 And so I think the Department's done a great
13 job to kind of balance, you know, pushing the industry a
14 little bit and pushing these engines so that we have to
15 think a little bit more. It's certainly not just an
16 easy, oh, we made it through kind of thing. So I'd say
17 that it was a good example of compromising throughout
18 this.

19 MEMBER GARCIA: Thank you very much. I
20 appreciate that. Thank you.

21 That's all I have.

22 MR. LISOWSKI: Thank you.

23 HEARING OFFICER ORTH: Thank you.

24 Member Honker?

25 MEMBER HONKER: Just wanted to say thanks,

1 Mr. Lisowski. That was very helpful in terms of how
2 this applies in -- in the field and in the real world.

3 So I have no questions. Thanks.

4 MR. LISOWSKI: Thank you.

5 HEARING OFFICER ORTH: Okay. Thank you.

6 Mr. Hiser, will there be any follow-up?

7 MR. HISER: Ms. Orth, I think that I would ask
8 just one question, a follow-up for Mr. Lisowski.

9 FURTHER DIRECT EXAMINATION

10 BY MR. HISER:

11 Q. Member Bitzer asked you a question about
12 exposure to CO.

13 You do design work with these engines all the
14 time. You don't have any human health reservations
15 about the NSPS 2 grams per brake horsepower-hour in
16 terms of exposure of workers or others at that level, do
17 you?

18 A. I do not, no.

19 MR. HISER: Okay. Thank you.

20 HEARING OFFICER ORTH: All right. Thank you
21 very much, Mr. Lisowski, for your testimony.

22 We'll excuse you for the moment.

23 MR. LISOWSKI: Okay. Thank you.

24 HEARING OFFICER ORTH: Our next -- thank you.

25 Do I understand now we'll be going to IPANM?

1 Mr. Rose?

2 MR. ROSE: Our witness will re -- has
3 testimony related to the National Park Service proposal
4 that you're going to hear on Friday, and we're in the
5 process potentially of revising that. So we may not
6 need to hear from Mr. Blewitt at all in response to
7 this, but at this point we'd like to present that
8 testimony at the time that the National Park Service
9 presents theirs.

10 HEARING OFFICER ORTH: All right. Thank you
11 for that.

12 I didn't see a witness for Oxy.

13 So I believe we move to GCA.

14 Mr. Butzier?

15 MS. KATZ: And, Madam Hearing Officer, if
16 you're going in the order of the spreadsheet, there's --
17 don't forget Kinder Morgan.

18 HEARING OFFICER ORTH: Yes. I haven't
19 forgotten Kinder Morgan. I had actually switched to
20 going through the service list. But if it makes sense
21 to hear from Kinder Morgan next, happy -- happy to do
22 it. I know GCA's proposed change was much more limited.

23 MS. GUTIERREZ: And, Madam Hearing Officer, I
24 was going to suggest the same. I think Mr. Butzier may
25 have a shorter presentation, and given the time it might

1 be best for him to present first.

2 HEARING OFFICER ORTH: Thanks so much,
3 Ms. Gutierrez.

4 Mr. Butzier?

5 MR. BUTZIER: Thank you.

6 And all that's fine with -- with us. We will
7 go ahead and proceed.

8 Good morning, Madam Hearing Officer, Madam
9 Chair, Members of the Environmental Improvement Board.

10 The Gas Compressor Association will briefly
11 present two technical witnesses on the subject of the
12 engine emission standards in Section 113B.(2) and (3) of
13 NMED's proposed rule. Their testimony is somewhat
14 overlapping, and we propose to then, after presenting
15 each of them, make them available as a mini panel, if
16 you will, for questioning by other parties.

17 We also have my -- my partner, Christina
18 Sheehan, will be presenting two other GCA witnesses on a
19 separate part of the rules, and so we propose to sort of
20 break them up into two pieces. If that's acceptable to
21 the Hearing Officer, that's how we propose to proceed.

22 HEARING OFFICER ORTH: I think that's the most
23 efficient way to do it. Thank you.

24 MR. BUTZIER: Thank you, Madam Hearing
25 Officer.

1 For ease of reference for the Board, the first
2 witness is Mr. Vic Sheldon. His direct testimony is GCA
3 Exhibit 9, his resume is GCA Exhibit 10. He did not
4 provide advance rebuttal.

5 The second witness is Mr. John Dutton. His
6 direct testimony is GCA Exhibit 12, his resume is GCA
7 Exhibit 13, and his rebuttal testimony is GCA
8 Exhibit 28.

9 Both witnesses will also be making reference
10 to NMED's September 16 draft rule, which is NMED's
11 Rebuttal Exhibit 23.

12 All of the exhibits that I have just previewed
13 for you have previously been entered into evidence in
14 this proceeding.

15 So if we could first please ask that
16 Mr. Sheldon be sworn.

17 HEARING OFFICER ORTH: Mr. Sheldon, if you
18 would join us on screen, please.

19 There we go.

20 Mr. Sheldon, would you spell your name,
21 please.

22 MR. SHELDON: My name is Vic Sheldon, V-I-C
23 S-H-E-L-D-O-N, Vic Sheldon.

24 HEARING OFFICER ORTH: All right. Would you
25 raise your right -- I'm sorry. Raise your right hand.

1 MR. BUTZIER: Mr. Sheldon, if you could maybe
2 try to see if you can either speak more loudly or turn
3 up your volume, that would be helpful.

4 Sorry, Madam Hearing Officer.

5 HEARING OFFICER ORTH: It's okay.

6 MR. SHELDON: I thought I had worked that
7 ahead of time. Let's see.

8 THE REPORTER: It is louder when you speak up
9 closer to the microphone like you are now.

10 MR. SHELDON: Is this loud enough at this
11 point, or should I make some other adjustment?

12 HEARING OFFICER ORTH: I can hear you.

13 Cheryl, how are you doing?

14 MR. SHELDON: How is this now, Cheryl?

15 THE REPORTER: I think that is going to work.
16 Thank you.

17 HEARING OFFICER ORTH: Thank you.

18 If you would raise your right hand.

19 Do you swear or affirm to tell the truth?

20 MR. SHELDON: I do.

21 HEARING OFFICER ORTH: Thank you.

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VIC SHELDON

(Relating to Topic Order 24)

having been first duly sworn or affirmed, was
examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUTZIER:

Q. Mr. Sheldon, would you please introduce
yourself.

Mr. Sheldon, can you hear me?

A. Yes, I can.

Q. Would you please --

A. Madam Hearing Officer and Members of the
Board, good morning.

My name is Vic Sheldon, and I am currently the
general manager of VSheldon JEverett Decisions, LLC.

Q. And, Mr. Sheldon, please briefly describe your
educational and professional qualifications.

A. I earned my BS in mechanical engineering from
Purdue University in 1973. I have maintained a
registered professional engineer certification in
mechanical engineering from the State of Illinois since
1984. I earned an MBA from Indiana Wesleyan University
in 1997.

The majority of my 37-year career was spent at
Caterpillar, where I was dedicated to natural gas

1 engines in a wide variety of roles, design, test and
2 performance development, field validation, manufacturing
3 support, product support, education and training,
4 marketing, and managing designers and developers.

5 My role with Caterpillar's oil and gas group
6 focused on large gas compression engine market analysis,
7 capture of functional requirements and the development
8 of large development and launch of new products. Part
9 of my gas compression engine market analyses included
10 understanding and tracking national, regional, state and
11 local emissions requirements.

12 Since retiring from Caterpillar, I have
13 assisted diesel and natural gas engine power systems end
14 users, original equipment manufacturers and dealers. I
15 have served as an engine consultant, witness to end
16 users, original equipment manufacturers and Caterpillar
17 dealerships.

18 Q. Thank you, Mr. Sheldon.

19 Are your direct testimony and resume GCA
20 Exhibits 9 and 10 respectively?

21 A. Yes.

22 Q. And do you adopt your written direct testimony
23 without change?

24 A. Yes, I do.

25 Q. Would you please state the general purpose of

1 your testimony and provide a brief summary of it.

2 A. The general purpose of my direct testimony was
3 to present and help clarify for the Board and NMED the
4 emissions capabilities of many lean-burn combustion
5 natural gas engines of differing sizes commonly employed
6 in the gas compression industry today.

7 My testimony was focused on the proposed
8 emission standards for oxides of nitrogen, or NOx, that
9 were presented in NMED's May 6 draft rule, and
10 specifically the proposed emission standards for new
11 lean-burn engines.

12 I sought to clarify why some larger cylinder
13 bore diameter gas compression engines greater than
14 1,000 horsepower could meet the NOx standard in the May 6
15 proposal while other new engines could not meet the
16 standard in the proposed rule, despite the application
17 of best available technology for reducing emissions.

18 My testimony stated that technologies
19 identified as low emissions combustion, or LEC
20 technology, retrofits are already integrating into the
21 designs of both larger and smaller bore engines
22 manufactured by Caterpillar, and have been for many
23 years. This enables enhanced ignition of extremely lean
24 air and fuel mixtures in the main combustion chamber due
25 to the use of multiple flame fronts in the design that

1 reduce the duration and temperature for combustion and
2 resulting NOx emissions.

3 All of my more detailed written testimony was
4 offered to help the Board and NMED establish appropriate
5 engine categories with engine emission standards choices
6 that are reasonable, flexible, feasible and consistent
7 with what is available on the market for companies
8 meeting and seeking to meet the purchase of new engines,
9 as well as New Mexico's goals of reducing emissions
10 within the oil and gas sector.

11 For those reasons, I testified that NMED
12 should increase the size cutoff for application of the
13 most stringent emission standards for new lean-burn
14 engines from 1,000 horsepower to 1,875 horsepower.

15 My testimony also urged that engines be
16 regulated as new engines based on their dates of
17 manufacture or reconstruction and not the installation
18 or relocation.

19 Q. Thank you, Mr. Sheldon.

20 And since providing your written direct
21 testimony, have you reviewed NMED's September 16 draft
22 of its proposed rule, and does Section 113B.(2) and (3)
23 sufficiently address the matters you presented?

24 A. Yes. I have reviewed it, and I believe it
25 takes into account the main points for my direct

1 testimony and will help to achieve NMED's emissions
2 reduction goals relating to natural gas compression
3 engines.

4 Q. And does that conclude your presentation in
5 today's hearing, Mr. Sheldon?

6 A. It does.

7 Thank you very much.

8 Q. Thank you.

9 And, Madam Hearing Officer, I request that
10 Mr. Dutton now be sworn.

11 HEARING OFFICER ORTH: All right.

12 If you will join us on screen.

13 Mr. Dutton, hello.

14 Would you -- let's see. Let's hear you talk
15 first.

16 Can you hear me?

17 MR. DUTTON: Yes, Madam Hearing Officer, I can
18 hear you.

19 HEARING OFFICER ORTH: All right. Your voice
20 is coming through just fine.

21 If you would spell your name, please.

22 MR. DUTTON: Yes, ma'am. My name is John,
23 J-O-H-N, Dutton, D-as-in-delta-U-T-T-O-N.

24 HEARING OFFICER ORTH: All right. Thank you.

25 If you'd raise your right hand.

1 Do you swear or affirm to tell the truth?

2 MR. DUTTON: Yes, ma'am, I do.

3 HEARING OFFICER ORTH: Thank you.

4 JOHN DUTTON

5 (Relating to Topic Order 24)

6 having been first duly sworn or affirmed, was
7 examined and testified as follows:

8 DIRECT EXAMINATION

9 BY MR. BUTZIER:

10 Q. Mr. Dutton, would you please introduce
11 yourself.

12 A. Good afternoon, Madam Hearing Officer and
13 Members of the Board.

14 My name is John Dutton. I am currently the
15 president of J-W Power Company, who is a member of the
16 Gas Compressor Association.

17 Q. And, Mr. Dutton, I would ask that you maybe
18 speak a little more slowly for the benefit of the court
19 reporter. Okay?

20 Would you please briefly describe your
21 educational and professional qualifications.

22 A. Sure. I earned a bachelor of science degree
23 in mechanical engineering from the University of
24 Oklahoma in 1991. I've spent the last 30 years working
25 in the natural gas compression and midstream pipeline

1 segments of the oil and gas industry. The last 23 of
2 those years has been with the J-W family of companies,
3 where I have worked in financial analysis, operations
4 and executive roles.

5 I have also served in the Gas Compressor
6 Association as chairman of the Environmental Committee,
7 as well as on its Board of Directors.

8 Q. Thank you, Mr. Dutton.

9 Are your direct testimony and resume GCA
10 Exhibits 12 and 13 respectively?

11 A. Yes, sir, they are.

12 Q. And did you also provide rebuttal testimony in
13 GCA Exhibit 28?

14 A. I did.

15 Q. Do you adopt your direct and rebuttal
16 testimony without change?

17 A. Yes, I do.

18 Q. Would you please state the general subject of
19 your testimony.

20 A. Sure. My testimony, like the testimony of GCA
21 witness Vic Sheldon that you just heard, relates to the
22 proposed regulation of engines and emission standards
23 that will apply to those engines under Sections 113B.(2)
24 and (3).

25 Q. And what was the general purpose of your

1 direct testimony?

2 A. The general purpose of my direct testimony was
3 to clarify for the Board and for NMED the capabilities
4 of common engines utilized in the gas compression
5 industry and to propose changes to Sections 113B that
6 preserve the NMED's central goal of reducing NOx
7 emissions while better accounting for the practical
8 realities involving the availability and use of
9 lean-burn engine designs.

10 This clarification was necessary to avoid
11 prohibitive cost burdens on the owners and operators of
12 those engines.

13 Q. Would you please briefly summarize your direct
14 testimony.

15 A. With regard to the emission standards for new
16 engines, I testified that the proposed standard of
17 0.3 grams of NOx per horsepower-hour in the May 6th
18 version of NMED's proposed rule is lower than is
19 currently achievable for some new spark ignition
20 lean-burn engines that are sized between 1,000 and
21 1,875 horsepower.

22 I also testified that it is not economically
23 viable for owners or operators to use SCR, selective
24 catalytic reduction, as opposed to combustion controls
25 on those engines, because you achieve minimal NOx

1 reductions at a very high cost.

2 For those reasons, I testified that the size
3 cutoff for applying the most stringent NOx emission
4 standard of 0.3 grams of NOx per horsepower-hour for new
5 engines should be raised from 1,000 horsepower to
6 1,875 horsepower.

7 Now, for existing engines, I testified that
8 the proposed standard of 0.5 grams of NOx per
9 horsepower-hour in the May 6th revision of the rule is
10 lower than as currently achievable for many existing
11 lean-burn engines that are sized greater than
12 1,000 horsepower, and that those existing engines are
13 not able to meet this limit despite the use of low
14 emissions combustion, or LEC, technology to reduce
15 emissions of NOx.

16 And like new engines, the use of
17 postcombustion controls like SCR is not an economically
18 viable way to incrementally reduce NOx emissions for
19 anything but the largest engines with specific site
20 advantages, such as electrical power and onsite
21 personnel.

22 I also testified that Section 113B originally
23 was proposed by NMED emissions limits would have
24 hindered competition from engine manufacturers. This
25 competition is beneficial in driving continuous

1 improvement, including lower emissions. It is my
2 opinion that without healthy competition LEC technology
3 would have never progressed as much as it has.

4 Last, I testified that an engine should be
5 regulated as either new or existing based on the date of
6 manufacture or reconstruction and that the relocation of
7 an existing engine, which sometimes occurs based on
8 operational needs, should not artificially convert an
9 existing engine into a new engine for the purposes of
10 the emission requirements of the rule.

11 Q. Thank you, Mr. Dutton.

12 And what was the general purpose of your
13 rebuttal testimony?

14 A. The main purpose of my rebuttal testimony was
15 similar to the purpose of my direct testimony. I
16 prepared my rebuttal testimony after review of the
17 material that NMED cited in developing the proposed
18 rule. I testified that with regard to existing
19 lean-burn engines those materials demonstrated that the
20 original proposed NOx emission standard for engines
21 greater than 1,000 horsepower would not be achievable
22 for many engines.

23 With regard to new lean-burn engines, I
24 testified that the original size threshold of
25 1,000 horsepower for the most stringent NOx emission

1 standard was inconsistent with the Pennsylvania permit
2 program and that there was no technical basis for
3 setting that cutoff at 1,000 horsepower.

4 Q. And have you reviewed NMED's latest
5 September 16 draft of the proposed rule that is NMED
6 Rebuttal Exhibit 23, and do NMED's changes to
7 Section 113B.(2) and (3) sufficiently address your
8 concerns?

9 A. I have reviewed the final rule proposal, and
10 they essentially do address my concerns. There will be
11 significant challenges to meet the requirements of the
12 rule, particularly for some existing engines, but the
13 engine NOx emission standards in the September 16 draft
14 of the rule is largely technically and economically
15 achievable for the majority of engines operated by GCA's
16 member companies.

17 I feel like NMED did a good job of addressing
18 GCA's concerns while preserving the goal of reducing NOx
19 emissions.

20 Q. And does that conclude your presentation of
21 direct and rebuttal testimony in today's hearing?

22 A. Yes, sir, it does. Thank you.

23 Q. Now, in the interest of efficiency, do you
24 wish to offer any surrebuttal in today's hearing? And
25 if so, on what topic?

1 A. Yes. I would like to offer surrebuttal
2 testimony to support NMED's decision not to include the
3 National Park Service's requested NOx emission standards
4 for some smaller size categories of engines to the
5 NMED's September 16 version of its proposed rule.

6 Q. Please proceed at this time, Mr. Dutton, with
7 that surrebuttal testimony.

8 A. The National Park Service offered Pennsylvania
9 permit GP-5 as the basis for its proposed emissions
10 limits. However, GP-5 differentiates between existing
11 engines permitted prior to 2013, those permitted between
12 2013 and 2018, and those permitted from 2018 until now.
13 The National Park Service proposal for New Mexico does
14 not make this important distinction.

15 For example, the National Park Service cited
16 GP-5 in support of its proposed NOx standards for
17 existing rich-burn engines for the size ranges below
18 1,000 horsepower, but the GP-5 levels cited by the
19 National Park Service only apply to those engines
20 permitted after 2013. Existing engines prior to 2013
21 have emissions levels that are more consistent with the
22 federal limits.

23 The same is true for the Park Service in its
24 proposed NOx standards for smaller sizes of existing
25 lean-burn engines. The Park Service is citing GP-5 as

1 support for its existing emission standard proposal, but
2 under GP-5 those levels do not apply to all existing
3 engines in those size ranges, only to those lean-burn
4 engines permitted after 2013.

5 In addition, the National Park Service's
6 reliance on the Pennsylvania GP-5 permit ignores the
7 fact that the Pennsylvania program, unlike the proposed
8 New Mexico program, provides a separate authorization
9 mechanism that can be used to authorize certain engines
10 that cannot meet the emission standards in GP-5.

11 Pennsylvania allows some engines, particularly
12 in the upstream space where smaller rich-burn engines
13 are more common, to be permitted with higher per
14 horsepower limits but with a cap on tons per year. The
15 GP-5 limits for smaller rich-burn engines should not be
16 applied unilaterally, as the National Park Service
17 propose, without giving consideration to the other
18 permitting alternatives that are available in
19 Pennsylvania.

20 There would be a number of challenges
21 associated with existing engines meeting the ultralow NOx
22 limits proposed by the National Park Service on a
23 continuous basis.

24 Q. And, Mr. Sheldon, aren't many of these smaller
25 rich-burn engines already well controlled at the federal

1 level?

2 MR. SHELDON: Yes, they are.

3 (Simultaneous discussion.)

4 MR. DUTTON: So I would like to answer that
5 question.

6 MR. SHELDON: I'm sorry.

7 MR. BUTZIER: I'm sorry. I said Mr. Sheldon.

8 MR. DUTTON: Okay.

9 MR. BUTZIER: I should have said Mr. Dutton.
10 But thank you for jumping in in response to my
11 question.

12 I'll direct it now to Mr. Dutton.

13 Q. Aren't many of the smaller rich-burn engines
14 already well controlled at the federal level?

15 A. Yes. I believe most of them are based on the
16 nature of their manufacture date. Based on a review of
17 my company's fleet of small rich-burn engines, those
18 that are less than 500 horsepower, located in the State
19 of New Mexico, 83 percent of those engines are subject
20 to NSPS Quad J with NOx emissions rates of 1 gram per
21 horsepower-hour. Another 4 percent are subject to NSPS
22 Quad J with a 2 gram per horsepower-hour requirement.

23 NSPS Quad J also includes maintenance
24 requirements similar to those the NMED has proposed.
25 Although my company's fleet is a small sample size, I do

1 believe it is representative of the population as a
2 whole, and it indicates that the vast -- the vast
3 majority of small rich-burn engines in New Mexico are
4 already well controlled and further regulation with its
5 associated administrative burden is not necessary and
6 will not have a significant impact on the air quality.

7 Q. So, Mr. Dutton, do you agree with NMED's
8 proposal to not impose requirements on small rich-burn
9 engines beyond the federal requirements?

10 A. Yes. For the reasons I just discussed, I
11 agree with NMED's decision not to include the National
12 Park Service's requested changes in the version of the
13 draft rule that it issued on September 6, 2021.

14 MR. BUTZIER: Thank you, Mr. Dutton.

15 Madam Hearing Officer, the GCA tenders its
16 witnesses, Vic Sheldon and John Dutton, for
17 cross-examination at this time.

18 HEARING OFFICER ORTH: Thank you very much,
19 Mr. Butzier.

20 Counsel and parties, if you have a question of
21 the GCA panel on this topic, if you would please turn on
22 your camera.

23 I'm not seeing anyone.

24 I'm going to turn to the Board for their
25 questions.

1 While I'm doing that, if you're an attendee on
2 this platform and would have a question, please reach
3 out through the chat.

4 Madam Chair, do you have questions?

5 CHAIR SUINA: Thank you, Madam Hearing
6 Officer. I don't have any questions at this time.

7 HEARING OFFICER ORTH: Thank you.

8 Vice-Chair Trujillo Davis?

9 VICE-CHAIR TRUJILLO DAVIS: Thank you. I
10 don't have any questions at this time.

11 HEARING OFFICER ORTH: All right.

12 Member Cates?

13 MEMBER CATES: No questions. Thank you.

14 HEARING OFFICER ORTH: Thank you.

15 Member Bitzer?

16 MEMBER BITZER: No questions. Thank you.

17 HEARING OFFICER ORTH: Thank you.

18 Member Garcia.

19 MEMBER GARCIA: No questions. Thank you.

20 HEARING OFFICER ORTH: No? All right.

21 And Member Honker.

22 MEMBER HONKER: No questions. Thank you.

23 HEARING OFFICER ORTH: Thank you, all, very
24 much.

25 I think it's time to take a lunch break. We

1 need to come back at 1:00 for public comment. We do
2 have several public commenters. I'll see you at 1:00.

3 (Proceedings in recess from 12:15 p.m. to
4 1:00 p.m.)

5 HEARING OFFICER ORTH: Let's come back from
6 the lunch break, please.

7 My name is Felicia Orth, Hearing Officer in
8 EIB 21-27.

9 We have reached the one o'clock public comment
10 session. Let me share with you the names of the folks
11 who reached out to the Board administrator by e-mail.
12 I'll call on you in this order.

13 Adeliious Stith, Marla Painter, Janet Carter,
14 Karl Braithwaite, Michael Sells, Stacie Slay, Stan
15 Renfro and Lauri Costello.

16 If you're on the platform and I did not just
17 call your name and you'd like to offer comment during
18 this session, please reach out through the chat. Chat
19 is enabled for everyone, and I'm happy to accept your
20 comment.

21 Let's see here. Let me find Adeliious Stith.

22 Hello. This is Felicia Orth.

23 Can you hear me?

24 Hello?

25 MR. STITH: I can hear you.

1 HEARING OFFICER ORTH: Ah. There.

2 Are you Mr. Stith?

3 MR. STITH: (Unintelligible and/or inaudible)

4 Stith.

5 HEARING OFFICER ORTH: Hello.

6 MR. STITH: I --

7 HEARING OFFICER ORTH: I would like you to
8 spell your name, please.

9 MR. STITH: A-D-E-L- (unintelligible and/or
10 inaudible) S-T-I-T-H.

11 HEARING OFFICER ORTH: Yes?

12 Mr. Stith, are you still speaking?

13 You're unmuted, but I'm not hearing anything.

14 MR. STITH: I have no --

15 HEARING OFFICER ORTH: Sorry?

16 MR. STITH: Hello.

17 HEARING OFFICER ORTH: Hello.

18 Can you hear me?

19 MR. STITH: Okay.

20 HEARING OFFICER ORTH: I think you might be
21 breaking up, Mr. Stith.

22 Cheryl, for the transcript, the name is

23 A-D-E-L-I-O-U-S --

24 MR. STITH: Delay.

25 HEARING OFFICER ORTH: -- S-T-I-T-H.

1 Mr. Stith, it's clear to me that your
2 microphone is going in and out. You're unmuted on the
3 platform, but it seems your sound isn't reliable.

4 It might help --

5 MR. STITH: Well, that's too bad.

6 HEARING OFFICER ORTH: Oh, wait. I just heard
7 that. Keep speaking now.

8 ADELIOUS STITH

9 gave public comment as follows:

10 PUBLIC COMMENT

11 HEARING OFFICER ORTH: I'll start your five
12 minutes.

13 MR. STITH: But it is a delay.

14 I am Adeliious Stith, and I am here and
15 (unintelligible and/or inaudible) from the West Side of
16 Albuquerque. (Unintelligible and/or inaudible) a couple
17 of the questions that -- that I guess you -- you
18 present (unintelligible and/or inaudible) the oil and
19 gas industry impact me in a way that it allows us to
20 (unintelligible and/or inaudible) from the revenue that
21 it produces.

22 And it also, of course, benefits the community
23 and impacts me in a way (unintelligible and/or
24 inaudible) being able to move around in the vehicles and
25 so forth that we have and being able to have the natural

1 gas and so forth.

2 (Unintelligible and/or inaudible) all of us
3 benefit from the oil and gas industry being that it's 35
4 to 40 percent of (unintelligible and/or inaudible). And
5 also the revenue benefits us because of our ad valorem
6 is covered by a portion of (unintelligible and/or
7 inaudible) our schools are funded in that way, as well
8 as the General Fund.

9 So I think their -- I think the oil and gas
10 industry does provide impactful benefits for our
11 community.

12 Modeling conducted on behalf of the New Mexico
13 Environmental Department to show that (unintelligible
14 and/or inaudible) emissions has a negligible effect on
15 reducing the ozone. Yet as a member of the public, I'm
16 (unintelligible and/or inaudible) that the proposed
17 ozone precursor rule will improve air quality.

18 Is the science behind this (unintelligible
19 and/or inaudible) or where does the data come from to
20 support this assertion (unintelligible and/or inaudible)
21 something that has not been presented to us
22 (unintelligible and/or inaudible) an area that we've
23 never gone before, but yet we're ready to dive into it.

24 And I certainly hope (unintelligible and/or
25 inaudible). It appears that the state's own model

1 doesn't support the proposed ozone (unintelligible
2 and/or inaudible) New Mexico Environmental Department
3 should refocus its efforts on reducing pollution in
4 general (unintelligible and/or inaudible) and one
5 industry in the state.

6 I know that growing up in Baltimore City and
7 learning (unintelligible and/or inaudible) any type of
8 targeting in order for a particular way to be -- to be
9 addressed or -- or (unintelligible and/or inaudible)
10 just plain on discrimination. (Unintelligible and/or
11 inaudible) that we're not discriminating against any
12 particular industry in order to have (unintelligible
13 and/or inaudible) outcome that is desired.

14 The oil and natural gas industry is
15 proactively working to reduce the risks to
16 (unintelligible and/or inaudible) action to limit
17 emissions of methane and other greenhouse gases. I've
18 seen (unintelligible and/or inaudible) are investing in
19 new technology and equipment, adopting to leading best
20 practices across their (unintelligible and/or inaudible)
21 approaches recognizes and encourages the adoption and
22 the development of creative solutions to reduce
23 (unintelligible and/or inaudible).

24 Ladies and gentlemen, I just hope that this
25 will be thoroughly looked at and not just jumped on the

1 bandwagon (unintelligible and/or inaudible) or like in
2 today's culture. But I sure hope that all will be
3 researched, not just following opinions, and we'll -- we
4 will do what's in the best interest for the State of New
5 Mexico, the people of New Mexico (unintelligible and/or
6 inaudible) benefit, not Washington, DC or anyone else.

7 Well, ladies and gentlemen, that's all I have.
8 I appreciate you giving me the opportunity to share my
9 thoughts. Thank you so much.

10 HEARING OFFICER ORTH: Thank you very much,
11 Mr. Stith.

12 Let me go to Ms. Painter next, if she's on the
13 platform.

14 I do not see her on the platform.

15 I did see one Call-in User, though. Let me
16 see.

17 Call-in User Number 9, I'm unmuting you.

18 Would you identify yourself, please.

19 Who is this?

20 Okay. I'm not hearing anything.

21 Call-in User Number 15, I'm unmuting you.

22 Would you identify yourself, please.

23 Hello?

24 No.

25 Okay. Those are the two Call-in Users I see.

1 I don't see Ms. Painter on the platform.

2 So let me move to Janet Carter.

3 Janet Carter. I think I saw Ms. Carter.

4 There's Ms. Carter.

5 Ms. Carter, can you hear me?

6 MS. CARTER: Yes, I can. Thank you.

7 I won't -- my name is Janet Carter, and --

8 HEARING OFFICER ORTH: Hold on one second.

9 Ms. Carter, hold on one second.

10 MS. CARTER: Okay.

11 HEARING OFFICER ORTH: First I need you to
12 spell your name.

13 MS. CARTER: C-A-R-T-E-R is my last name, and
14 first name is J-A-N-E-T.

15 HEARING OFFICER ORTH: Thank you.

16 And if you would raise your right hand.

17 Do you swear or affirm to tell the truth?

18 MS. CARTER: I do.

19 HEARING OFFICER ORTH: Thank you.

20 JANET CARTER

21 having been first duly sworn or affirmed, gave
22 public comment as follows:

23 PUBLIC COMMENT

24 HEARING OFFICER ORTH: I'll start your five
25 minutes now.

1 MS. CARTER: And I will not take five minutes,
2 but thank you. I -- I wanted to speak just very briefly
3 about the -- some of these proposed regulations, and
4 particularly about the -- the ozone precursor rules.

5 Oil and gas pollution are taking a toll on our
6 air, water and health in New Mexico, and it's
7 particularly has an effect on rural and tribal
8 communities, and, of course, children. There's very
9 high rates of asthma and other respiratory ailments in
10 this area, and it's, of course, been exacerbated with --
11 with the pandemic.

12 I do support the Governor's -- our Governor's
13 call for nation-leading strict oil and gas pollution
14 rules, and I think that the EIB must strengthen the
15 proposed ozone precursor rules, because we want to
16 protect those who live in the areas close to these -- to
17 production, to oil and gas production.

18 And an important way we can do this, for
19 example, is by adopting regulations that require more
20 frequent inspections of the equipment, inspections that
21 would check for leaks. Cutting down leaks in the oil
22 and gas production equipment has made a -- can make a
23 big difference in the emissions and has been -- this has
24 been implemented successfully in Colorado, and I think
25 it's an important thing that we should consider doing.

1 And I think we should look at other means that
2 we can cut down the existing emissions leaks in oil and
3 gas coming in these -- that's leaking in these
4 production areas to keep the air as clean as possible.
5 We owe it to our children and to our grandchildren.

6 We've had a very hot, dry, warm summer. We're
7 going to have a lot more in the future. And we -- and
8 not only do we need to get a -- to transition to clean
9 energy, we need to make that the -- the fossil fuel
10 energy that we still have and still produce much more
11 climate friendly and reduce emissions every way we can.

12 And that's all I want to say, but I want to
13 thank you for the time to speak. Thank you.

14 HEARING OFFICER ORTH: Thank you very much,
15 Ms. Carter.

16 We'll move, then, to Karl Braithwaite.

17 I remember Mr. Braithwaite was on the Board a
18 long time ago.

19 Hello, Mr. Braithwaite.

20 MR. BRAITHWAITE: Hello. I'm -- I'm surprised
21 you remember. Thank you for remembering. That was -- I
22 was the Chair --

23 HEARING OFFICER ORTH: Of course.

24 If you --

25 MR. BRAITHWAITE: Spell my name?

1 HEARING OFFICER ORTH: Yes.

2 MR. BRAITHWAITE: It's K-A-R-L.

3 HEARING OFFICER ORTH: Yes, you were. Yes,
4 please.

5 MR. BRAITHWAITE: Last name is Braithwaite,
6 B-R-A-I-T-H-W-A-I-T-E.

7 HEARING OFFICER ORTH: Thank you very much.
8 And if you'd raise your right hand.

9 Do you swear or affirm to tell the truth?

10 MR. BRAITHWAITE: Yes.

11 HEARING OFFICER ORTH: Thank you so much.

12 KARL BRAITHWAITE

13 having been first duly sworn or affirmed, gave
14 public comment as follows:

15 PUBLIC COMMENT

16 HEARING OFFICER ORTH: I'll start your five
17 minutes now.

18 MR. BRAITHWAITE: Okay. Thank you.

19 Yes. In the mid-1980s I was the Chair of the
20 Environmental Improvement Board. We adopted a number of
21 good provisions, but we couldn't get everything done
22 that needed to be done, and we're still working on it
23 now.

24 I'd like to address a couple of specific
25 things.

1 One is I think it's really important that this
2 legislation, this -- these regulations have very strong
3 self-reporting requirements from the industry across the
4 Board. We have just a handful, I think maybe seven,
5 inspectors now in the state. They will never be able to
6 cover the land that needs to be covered. But if they
7 receive full, honest reports, using new technology to
8 track their own emissions and understand them, they'll
9 probably be surprised a bit at how much they impact the
10 environment.

11 And so it's important that not just some of
12 the old techniques of monitoring be required, but there
13 are many new ones. We're learning some very interesting
14 things from remote monitoring, even space and airplanes,
15 and if we don't have that, we know in the future there
16 is likely to be pressure on state governments when
17 economy -- the economy goes down a bit. We don't want
18 that to occur. So a self-reporting requirement will
19 make it so that we have the data that we need and even
20 allow citizens to participate in assisting.

21 So I think that's a really key point, and I
22 want to make that very strongly.

23 My second point is when it comes to the ozone
24 precursors, we've known for quite a while that the
25 ambient air quality criteria documents that help zero us

1 in on pollution have faced delays that I think were not
2 warranted, but happened. And so we're behind in this
3 area. And it's very good to see the Environment
4 Department moving forward with some very substantial
5 ozone regulations that will be very beneficial to the
6 public. It's important that the communities close to
7 those emissions are kept in the forefront.

8 There are many other parts of this regulation
9 to address. I think it's a good -- good job, and I
10 would urge strengthening it in a few key areas.

11 And I thank you very much for the time to
12 participate.

13 HEARING OFFICER ORTH: Thank you very much,
14 Mr. Braithwaite.

15 MR. BRAITHWAITE: Thank you for remembering
16 me. It's nice.

17 HEARING OFFICER ORTH: We had a good time.

18 We'll move, then, to Michael Sells, see if
19 he's on the platform.

20 I see Mr. Sells.

21 Can you hear me?

22 Mr. Sells?

23 I've unmuted you.

24 Can you hear me?

25 It might help to call back in, Mr. Sells. We

1 can't hear anything at all.

2 Move, then, to Stacie Slay. Here we go.

3 Ms. Slay, can you hear me?

4 MS. SLAY: Can I ask you to hang on just a
5 second? I am here. I am sorry. I am speaking to a
6 medical provider. I have a growth on my eye that's got
7 to be removed, and the call just came in. So I
8 apologize, but I cannot speak now.

9 HEARING OFFICER ORTH: All righty. We'll try
10 again.

11 MS. SLAY: Thank you.

12 HEARING OFFICER ORTH: Stan Renfro is next.

13 Mr. Renfro?

14 MR. RENFRO: Yes.

15 HEARING OFFICER ORTH: If you would please
16 spell your name.

17 MR. RENFRO: R-E-N-F-R-O.

18 HEARING OFFICER ORTH: Thank you.

19 Raise your right hand.

20 Do you swear or affirm to tell the truth?

21 MR. RENFRO: I do.

22 HEARING OFFICER ORTH: Thank you.

23

24

25

1 STAN RENFRO

2 having been first duly sworn or affirmed, gave
3 public comment as follows:

4 PUBLIC COMMENT

5 HEARING OFFICER ORTH: We'll start your five
6 minutes now.

7 MR. RENFRO: Greed causes methane bleeding. A
8 million tons of methane visible from space occludes the
9 earth from sight of New Mexico. Wells churn across the
10 street from Lybrook Elementary School and up against
11 people's homes and hogans, laying waste to people's
12 lives and health each day.

13 But it's what those flares and leaks represent
14 that make me see red. It's so wasteful, so poorly
15 conceived. As a society we squander, squander,
16 squander. The methane that's flared or leaked into the
17 atmosphere is natural gas after all, the same natural
18 gas we use to heat our homes, boil our pasta.

19 Lest we forget in 2014 NASA revealed the
20 methane anomaly in the Four Corners region years ago,
21 years ago, years ago. It's still there. It's seeping
22 gases. It's rusting pump jacks. It's poison wells.
23 It's crashing. It's cracking pavement.

24 Great horned owls watching us.

25 Thank you.

1 HEARING OFFICER ORTH: Thank you very much,
2 Mr. Renfro.

3 Let's go back to Mr. Sells.

4 Mr. Sells, can you hear me?

5 MR. SELLS: Yes.

6 HEARING OFFICER ORTH: Terrific. I can hear
7 you, as well.

8 If you would spell your name, please.

9 MR. SELLS: M-I-C-H-A-E-L S-E-L-L-S, last
10 name.

11 HEARING OFFICER ORTH: Thank you.

12 Raise your right hand.

13 MR. SELLS: Okay.

14 HEARING OFFICER ORTH: Do you swear or affirm
15 to tell the truth?

16 MR. SELLS: Yes.

17 HEARING OFFICER ORTH: Thank you.

18 MR. SELLS: Swear --

19 MICHAEL SELLS

20 having been first duly sworn or affirmed, gave
21 public comment as follows:

22 PUBLIC COMMENT

23 HEARING OFFICER ORTH: I'll start your five
24 minutes now.

25 MR. SELLS: Okay.

1 Well, I'm a -- I'm an Episcopalian priest here
2 in Farmington. I serve three congregations in Upper
3 Fruitland, Farmington and Huerfano. I've been here for
4 three years. I moved here in 2018.

5 And I am surprised because the people in my
6 congregation have asthma. And a long time ago people
7 came to the Southwest to -- for the good -- for the good
8 air. They came for sanitariums and to get well. And it
9 just struck me as odd that in rural Northwestern New
10 Mexico there would be a large concentration of people
11 fighting asthma. I mean, these -- these people never
12 lived in Los Angeles, Chicago or LA -- or New York, and
13 they had asthma.

14 And -- and I learned from my colleague that
15 there was the ozone. The air here is not the best. And
16 it just struck me as very odd that today these people
17 are in their 70s and 60s and they've lived here all
18 their life and they're -- they're battling asthma.

19 And then on top of that, with the fires in
20 California and the surrounding areas, it's -- it's
21 own -- it's -- they have to -- they have to go inside
22 their homes.

23 I mean, this is Northwestern New Mexico. It's
24 a place where the sun shined, and we're supposed to
25 enjoy the sunshine and the air, and people come here to

1 live here, and -- I'm just a little concerned about
2 that. It just strikes me as very odd for some place in
3 rural New Mexico -- Northwestern New Mexico to have so
4 many people, my congregation's battling asthma. It just
5 strikes me as very, very odd.

6 And on top of that, I -- I'm not against the
7 oil and gas industry. I want to make sure that the
8 people in my congregation have jobs, they have food,
9 shelter and clothing for their family. I don't want the
10 oil companies to start -- you know how oil companies can
11 play with their employees and say, oh, the environmental
12 groups want this so they want us to add all this to your
13 work load, boom, boom, boom, with all these checklists,
14 and so then the -- they get the -- they get the workers
15 agitated and -- against the environmental groups and
16 say, oh, and then they're going to increase their
17 workload, and to go through the checklists to make sure
18 there is no leakage.

19 And there just can be -- they can -- these
20 companies know how to agitate these employees and play
21 with the people. And so there's an agitation between
22 our environmental groups and people who gain a living
23 from the oil and gas industry.

24 So I know the regulations are done and
25 written, but I want to make sure -- ensure that the

1 employees are not pushed to their limits. Safety is of
2 utmost importance, and I don't want them to just add to
3 their work lists. I mean, some of them work 12-,
4 14-hour shifts. And when you're doing a checklist and
5 you live in the community and their childrens are
6 growing in the community, they -- I'm sure they're
7 concerned about the air quality in their communities.

8 Their grandparents, their children, their
9 spouses live in the same community, and their spouses
10 are fighting asthma, but their work -- that's where they
11 get their livelihood, to put food on the table.

12 So I don't -- I don't want to be manipulated
13 by these companies, and these regulations give some
14 sense of power to the community, give some sense of
15 power to the employees.

16 So that's -- those are -- those are the things
17 on my mind. I -- like I do, I serve Huerfano community,
18 I work with the communities in Nageezi, Counselor, and
19 we see a bunch of -- bunch of new equipment coming in
20 there, and we see -- we see them burning off the --
21 burning off the excess.

22 And you listen to the grandmothers, and they
23 talk about fracking, and you -- you hear about the
24 deformed animals, the deformed sheep, the deformed cows,
25 and that just gives -- it just sends an awful chill down

1 my spine, about this is how these people are living out
2 in Huerfano, Nageezi.

3 And there's -- there's tension there, because
4 their children are working with the oil and gas
5 industry. They get their little tiny checks from the
6 oil and gas industry. And so there's a bit of tension.
7 And I think these regulations will help ease that if
8 they're well written to protect the community, protect
9 the employees.

10 HEARING OFFICER ORTH: Would you wrap up,
11 please, Mr. Sells.

12 MR. SELLS: Yes.

13 And that is all I have to say, Ms. -- ma'am.

14 HEARING OFFICER ORTH: Thank you so much.

15 All right. We'll go back to Ms. Slay and then
16 Ms. Costello and Mr. Beall.

17 Let's see. Stacie Slay.

18 Hello. Can you hear me?

19 MS. SLAY: Yes. I can hear you fine.

20 Can you hear me?

21 HEARING OFFICER ORTH: Yes.

22 All right. If you would please spell your
23 name.

24 MS. SLAY: Sure. It's Miss Stacie Slay,
25 S-T-A-C-I-E S-L-A-Y.

1 HEARING OFFICER ORTH: Thank you.

2 And raise your right hand.

3 Do you swear or affirm to tell the truth?

4 MS. SLAY: Yes.

5 HEARING OFFICER ORTH: Thank you.

6 STACIE SLAY

7 having been first duly sworn or affirmed, gave
8 public comment as follows:

9 PUBLIC COMMENT

10 HEARING OFFICER ORTH: I'll start your five
11 minutes now.

12 MS. SLAY: Thank you.

13 And as I said, I am Stacie Slay, and I live in
14 La Plata, New Mexico, which is about 10 miles northwest
15 of Farmington.

16 I would like to thank the Environmental
17 Improvement Board for this opportunity to provide my
18 comments. So thank you very much.

19 I have MS and a hole in my heart and have
20 lived in this community since 1996. I mention my
21 medical issues because they are of issue to your
22 regulations. I live in a small community north of
23 Farmington, and we have seven families out here age
24 ranging from the very young to the really old, other
25 people with problems just like me, and we're surrounded

1 by oil wells, gas wells, mainly gas wells.

2 And your regulations can go a long way to
3 determining my health in the future, as well as all of
4 these families. I appreciate everything you've done so
5 far, and push you to try even harder, even faster to
6 make certain changes that will improve not only the
7 health quality of everybody involved. These changes can
8 also help climate. They can also help tourism here.

9 And as I heard from the earlier testimony, a
10 lot of people have some physical challenges, medical
11 challenges that they really, really had waited for years
12 for -- for regulations to be put in place that we can
13 count on to impact our health and quickly. Some of us
14 don't have much longer to live.

15 But anyway, I wrote some things down that I
16 wanted to keep on track with, and so I just wanted to
17 mention that the satellite photos show enormous amount
18 of methanes completely covering the Four Corners area.

19 While the NMED has put forward strong
20 proposals, there are three critical improvements that
21 the EIB should make to protect communities and address
22 major sources of pollution.

23 And first would be to protect the living
24 closest to development by requiring more frequent
25 inspections to find leaks. And, you know, if that means

1 more people to go looking, fine. There's more
2 technology. You can fly planes over now. Anyway, back
3 on track.

4 Ensure strong requirements for operators to
5 control pollution during the completion of an oil well,
6 as well as a gas well, and as for -- as redevelopment of
7 existing wells are concerned, too.

8 Also, we need to strengthen requirements to
9 cut pollution from pneumatic controllers. Big problem
10 here. The smell up here (unintelligible and/or
11 inaudible) pneumatic controllers that are used in oil
12 and gas production. The devices are the second largest
13 source of oil and gas methane emissions in New Mexico.
14 And I can testify for that. Amen brother. NMED should
15 require companies to inspect pneumatics for leaks and
16 accurate and timeline to retrofit equipment to zero
17 bleed or zero emission pneumatic controllers.

18 I apologize. I have brain damage so speaking
19 especially under a time limit is not always good for me.

20 But anyway, that is the main portion of it.
21 Largely, the oil and gas leaks are avoidable. They are
22 harmful emissions to everybody, wildlife, climate,
23 everybody. It's -- it's carcinogenic even.

24 But thank you for considering these points,
25 and I appreciate the EIB for allowing me to have this

1 time to stumble over these concerns of mine.

2 HEARING OFFICER ORTH: Thank you very much,
3 Miss Slay.

4 I will go now to Lauri Costello.

5 Let's see. Ms. Costello, I've unmuted you.

6 Can you hear me?

7 MS. COSTELLO: I can.

8 HEARING OFFICER ORTH: Oh, good. I can hear
9 you, as well.

10 If you would please spell your name.

11 MS. COSTELLO: L-A-U-R-I C-O-S-T-E-L-L-O.

12 HEARING OFFICER ORTH: Thank you.

13 And raise your right hand.

14 Do you swear or affirm to tell the truth?

15 MS. COSTELLO: I do.

16 HEARING OFFICER ORTH: Thank you.

17 LAURI COSTELLO

18 having been first duly sworn or affirmed, gave
19 public comment as follows:

20 PUBLIC COMMENT

21 HEARING OFFICER ORTH: I'll start your five
22 minutes now.

23 MS. COSTELLO: Thank you.

24 Greetings from your neighbors to the north.

25 My name is Lauri Costello. I'm a retired

1 family physician living in -- excuse me -- Durango,
2 Colorado, which is in La Plata County.

3 Rather than comment on the details of your
4 proposed methane regulations, I'd like to review some of
5 the history of the federal methane rule and why I think
6 state laws are especially important.

7 Our La Plata County Commissioner, Gwen
8 Lachelt, was instrumental in the late Senator John
9 McCain's deciding vote to pass the federal methane rule
10 during the Obama administration. It was one of many
11 Obama era protections that later came under attack.
12 President Trump proposed a stay on the methane rule for
13 new fracking wells.

14 In July, 2017, I joined Don Schreiber and
15 others in Washington, DC, where we testified before the
16 EPA in opposition to the stay, that is to uphold the
17 application of the methane rule to new fracking
18 operations. Here's a portion of my testimony which is
19 still relevant today.

20 I'm currently living in Durango, Colorado,
21 under the vast Four Corners methane cloud. These clouds
22 are usually associated with urban areas, but this one,
23 the largest in the country at 2,500 square miles, is
24 rural. With the dramatic increase in fracking and
25 associated fugitive emissions, methane is now a rural

1 health issue in the very communities that are least
2 equipped to deal with it.

3 Furthermore, the Native American population in
4 Northwest New Mexico has suffered significant and
5 numerous health effects from fracking wells that are
6 only now being documented. The Indian Health Service
7 has been ineffective in diagnosing these issues, let
8 alone treating them. A stay on the regulations for
9 methane capture in new wells is reckless. They are the
10 very wells that should be state-of-the-art for
11 protection of public health and of the environment.

12 Ours were among a total of 116 comments in
13 opposition to the stay, that is comments in support of
14 upholding the methane rule. There were two comments in
15 favor of the stay, one reportedly from the oil and gas
16 industry. Nonetheless, the stay was approved, showing
17 the complete dismissal of public input.

18 According to Keating Research, the oil and gas
19 industry in Colorado favors our stricter rules that
20 require them to find and fix methane leaks. These rules
21 improve efficiency and worker safety while decreasing
22 methane pollution. And the costs are minimal, if not
23 outweighed by the increased revenue from captured
24 natural gas.

25 Researchers at Colorado State University have

1 documented asthma attacks in children that are caused by
2 the oil and gas industry. They are directly related to
3 the number of fracking wells. In 2018, Colorado ranked
4 third among the states with upwards of 32,000 such
5 childhood asthma attacks annually, while number one
6 Texas had almost 145,000.

7 Although New Mexico is not one of the top 20
8 states for childhood asthma attacks caused by oil and
9 gas, you sadly have two entries in the top 30 counties
10 in the US for these asthma attacks in children. Lea
11 County is number two, and Eddy County is number 29.
12 Again let me remind you that was 2018 data.

13 Although I am a staunch supporter of federal
14 protections for public health, including universal
15 health care, it is painfully obvious that the federal
16 government is unable to provide them. The most recent
17 rating of America's most and least trusted professions
18 as reported by Forbes in 2018 ranks nurses, as usual, as
19 most trusted, followed by physicians and pharmacists.
20 Car salespeople are second from the bottom. Below them
21 are members of Congress. They are the least trusted in
22 our nation. That's US Congress.

23 This is why it is imperative for New Mexico to
24 enact meaningful methane protections. Furthermore, air
25 pollution increases susceptibility to COVID infection,

1 and people with respiratory conditions are at high --
2 higher risk of serious COVID illness and death.
3 Unfortunately in Colorado, despite our 2019 legislation
4 requiring priority of public health over fracking
5 profits, our Governor has failed to hold industry
6 accountable during the pandemic.

7 I wish you all the best as you seek to protect
8 all of us from the known and preventible adverse health
9 effects of methane and its co-conspirators in air
10 pollution-related death and disease.

11 Thanks for listening. Keep up the great work.

12 HEARING OFFICER ORTH: Thank you,
13 Dr. Costello.

14 MS. COSTELLO: You're welcome.

15 HEARING OFFICER ORTH: All right. We will go
16 to Andrew Beall.

17 In the event you're on the platform and you
18 haven't already spoken, please reach out in the chat.
19 I'm happy to call for you. And in the event you have
20 any trouble with the chat, please reach out to Pam Jones
21 at 660-4305.

22 Mr. Beall, can you hear me?

23 MR. BEALL: Yes, I can hear you.

24 HEARING OFFICER ORTH: Oh.

25 MR. BEALL: Can you hear me?

1 HEARING OFFICER ORTH: You're very soft.

2 Can you speak up?

3 MR. BEALL: Yes.

4 How's this? Can you hear me now?

5 HEARING OFFICER ORTH: Well, that's -- it's
6 hard to hear you.

7 MR. BEALL: I'm sorry. I can't do anything.
8 Please go to your next caller.

9 HEARING OFFICER ORTH: Okay. Thank you. You
10 can also put your comments in writing to Pam, and I'm
11 happy to call on you again if you get a better
12 connection.

13 MR. BEALL: Okay.

14 Bye-bye.

15 HEARING OFFICER ORTH: Thank you.

16 Bye.

17 All right. I don't see anyone else in the
18 chat.

19 Let me look for Ms. Painter again.

20 Nope. I don't see her.

21 All right. Let's return to the technical
22 case.

23 I believe, Ms. Gutierrez -- oh, I see
24 Ms. Sheehan. I was rushing to Kinder Morgan. Very
25 sorry.

1 Ms. Sheehan, I believe you're going to call
2 two more witnesses on behalf of GCA.

3 MS. SHEEHAN: That's correct. Thank you,
4 Madam Hearing Officer.

5 Good afternoon, Madam Chair and Members of the
6 Board.

7 The GCA will now present its next two
8 technical witnesses who will be discussing the
9 monitoring requirements set forth under Section 113C of
10 the proposed rule.

11 I will begin by calling Mr. Copeland, who will
12 be testifying regarding Section 113C.(3) of the
13 September 16 version of the rule, followed by Mr. Randy
14 Bartley, who will be testifying regarding
15 Section 113C.(4) of the September 16 version of the
16 proposed rule.

17 In the interest of efficiency, although they
18 are testifying regarding different subparts of
19 Section 113C, I have proposed to offer them both up at
20 the same time for questions the parties or the
21 Board's -- or the Board Members may have at the
22 conclusion of Mr. Bartley's testimony, if that's
23 acceptable.

24 HEARING OFFICER ORTH: Yes. Thank you very
25 much for suggesting that. I think that's best.

1 MS. SHEEHAN: Excellent.

2 I will begin with Mr. Copeland.

3 I do not see him as a panelist yet. Oh, there
4 he is.

5 For everyone's benefit, the exhibits
6 associated with Mr. Copeland's testimony regarding
7 Section 113 are GCA Exhibit 15, Mr. Copeland's advance
8 written direct testimony, and GCA Exhibit 16, his
9 resume.

10 MARK COPELAND and RANDY BARTLEY

11 (Relating to Topic Order 24)

12 having been first duly sworn or affirmed, was
13 examined and testified as follows:

14 DIRECT EXAMINATION OF MARK COPELAND

15 BY MS. SHEEHAN:

16 Q. Mr. Copeland, have you already provided your
17 name for and been sworn in by the court reporter?

18 A. Yes, I have.

19 MS. SHEEHAN: For the record, Mr. Copeland has
20 already adopted his prefiled written direct and rebuttal
21 testimony in this proceeding, and both have been entered
22 into the hearing record, along with his resume.

23 Q. Mr. Copeland, did you provide prefiled direct
24 testimony concerning Section 113 of the proposed rule?

25 A. Yes, I did.

1 Q. What is the general purpose of your direct
2 written testimony in this proceeding regarding
3 Section 113 of the proposed rule?

4 A. My testimony relates to the engine maintenance
5 requirements in Section 113. The purpose of my prefiled
6 direct written testimony is to explain why the engine
7 maintenance requirements within 113C.(1) should be
8 modified and expanded to allow engine owners to deviate
9 from the minimum manufacturer-required maintenance
10 schedules.

11 Q. Thank you, Mr. Copeland.

12 Have you reviewed NMED Rebuttal Exhibit 23,
13 which is the September 16 version of the rule?

14 A. I have.

15 Q. Are the GCA's proposed amendments to
16 Section 113 incorporated in NMED Rebuttal 23?

17 A. They are not.

18 Q. Are your concerns regarding Section 113 of the
19 proposed rule fully addressed by NMED's amendments to
20 that section as set forth in NMED Rebuttal Exhibit 23?

21 A. Although the Department's amendments to
22 Section 113 are set forth by NMED Rebuttal Exhibit 23
23 are different than the amendments GCA proposed with
24 respect to engine maintenance standards, the
25 Department's amendments do appear to allow

1 owners/operators to use the type of maintenance plans
2 that we develop and utilize in compliance with existing
3 federal regulations.

4 Therefore, my concerns with Section 113 are
5 addressed by the Department's revisions in this section
6 and set forth by NMED's Rebuttal Exhibit 23.

7 Q. Would you encourage the Environmental
8 Improvement Board to adopt the Department's Section 113
9 provisions as set forth in NMED Rebuttal Exhibit 23?

10 A. I would.

11 Q. Thank you, Mr. Copeland.

12 Does that conclude your testimony on this
13 section?

14 A. Yes, it does.

15 MS. SHEEHAN: Thank you.

16 Madam Hearing Officer, turning now to
17 Mr. Randy Bartley.

18 Mr. Bartley's testimony address the GCA's
19 proposed amendments to emissions testing requirements
20 for engines and the Department's May 6 version of the
21 proposed rule. Since that time, NMED has adopted the
22 GCA's changes to Section 113, which is currently set out
23 in Section 113C.(4)(i) in NMED Rebuttal Exhibit 23.

24 The GCA has offered a minor amendment to that
25 adopted provision of the rule which it has presented to

1 the parties as GCA Exhibit 35. NMED has indicated that
2 it has no objection to these amendments. Given this
3 cooperation and in an effort to streamline this
4 proceeding, I propose to present Mr. Bartley, have him
5 adopt his written testimony in this proceeding, briefly
6 summarize his surrebuttal testimony, and then offer him
7 up for any questions others may have.

8 HEARING OFFICER ORTH: That sounds like a good
9 way to go. Thank you.

10 MS. SHEEHAN: Excellent.

11 And just for everyone's benefit, the exhibits
12 associated with Mr. Bartley's testimony are GCA Exhibits
13 25, Mr. Bartley's prefiled direct written testimony, and
14 GCA Exhibit 26, his resume.

15 I would now request that he be sworn in.

16 HEARING OFFICER ORTH: Okay.

17 Mr. Bartley, if you would raise your right
18 hand.

19 Do you swear or affirm to tell the truth?

20 MR. BARTLEY: I do.

21 HEARING OFFICER ORTH: Thank you.

22 And please spell your last name for the court
23 reporter.

24 MR. BARTLEY: It is B-A-R-T-L-E-Y.

25

1 DIRECT EXAMINATION OF RANDY BARTLEY

2 BY MS. SHEEHAN:

3 Q. Mr. Bartley, will you please state your name
4 for the record.

5 A. Good afternoon, Madam Hearing Officer, Madam
6 Chair, Members of the Environmental Improvement Board.

7 My name is Randy Bartley.

8 Q. And what is your current employment position?

9 A. I'm the chief executive officer at
10 B.enviroSAFE, LLC, doing business as BAIR, B-A-I-R.
11 We're an environmental consulting and emissions testing
12 company.

13 Q. Can you please briefly describe your
14 educational and professional qualifications.

15 A. Sure. I received a bachelor of business
16 administration from the University of Oklahoma in energy
17 management, with a minor in finance, in December
18 of 2003.

19 I've been working in the oil and gas industry
20 for the past 26 years. I have over 20 years of
21 experience related to emission testing, natural gas
22 compressor engines. And through training and experience
23 I've become familiar with the emission standards that
24 apply to sources in the oil and gas industry, including
25 engines, as well as the emissions testing -- emissions

1 testing requirements for those sources.

2 I'm familiar with and have conducted emissions
3 tests using both portable analyzers and traditional
4 stack testing equipment for engines and other sources.

5 Q. Thank you, Mr. Bartley.

6 A copy of your resume has been provided as GCA
7 Exhibit 26; is this correct?

8 A. That is correct.

9 Q. And you have submitted prefilled direct written
10 technical testimony in this proceeding, which has been
11 provided as GCA Exhibit 25; is that correct?

12 A. Yes, that's correct.

13 Q. Do you have any changes to your direct
14 prefilled written testimony?

15 A. I do not.

16 Q. Do you adopt your prefilled direct written
17 testimony here today?

18 A. I do.

19 Q. Mr. Bartley, could you please share on your
20 screen GCA Exhibit 35?

21 Madam Hearing Officer, could you please give
22 him sharing privileges?

23 Excellent. Thank you, Mr. Bartley.

24 Mr. Bartley, have you reviewed NMED Rebuttal
25 Exhibit 23, the updated version of the proposed rule?

1 A. I have.

2 Q. Are the GCA's proposed amendments to
3 Section 113C.(3) of the proposed rule adopted in NMED
4 Rebuttal Exhibit 23?

5 A. They are.

6 Q. Are your concerns regarding Section 113C.(3)
7 fully addressed by NMED's amendments to that provision
8 as set forth in NMED Rebuttal Exhibit 23?

9 A. They are not.

10 Q. Could you -- could you please explain why they
11 are not?

12 A. Yes. While NMED included the GCA's proposed
13 revisions to Section 113C.(3) by adding new paragraph
14 sub -- or Subparagraph (i), the Department made
15 additional revisions to what is now Section 113C.(4)
16 that creates the need to further amend the language of
17 what is now Paragraph 113C.(4)(i) of Exhibit 23.

18 The earlier version of the proposed rule
19 indicated that a portable analyzer could be used for
20 both initial and annual testing. As it has now been
21 revised in NMED Rebuttal Exhibit 23, the rule language
22 now suggests that portable analyzers can only be used
23 for the subsequent annual testing and not initial
24 emissions tests for engines.

25 As stated in my direct testimony, CO is a

1 reliable surrogate for showing compliance with the
2 hydrocarbon emission standard regardless of whether
3 you're testing using a formal EPA reference method test
4 or using a portable analyzer. Therefore, CO should be
5 able to be used as a surrogate for nonmethane, nonethane
6 hydrocarbons, NMNEHC, in the initial performance test
7 and subsequent annual testing.

8 Q. Do you have any suggested ways to correct this
9 issue?

10 A. I do. I suggest simply removing the language
11 for emissions testing using a portable analyzer from
12 Paragraph 113C.(4)(i) in NMED Rebuttal Exhibit 23 as
13 shown in GCA Exhibit 35.

14 Q. Is it your understanding that the Department
15 supports this change?

16 A. It is.

17 Q. Thank you, Mr. Bartley.

18 Does this conclude your surrebuttal testimony
19 in this proceeding?

20 A. It does. Thank you.

21 Q. Thank you. You can stop sharing your screen
22 now, I believe.

23 Madam Hearing Officer, before I offer both
24 witnesses up for questions, I would like to move for the
25 admission of GCA Exhibit 35 into the hearing record.

1 HEARING OFFICER ORTH: Thank you.

2 Let me pause for a moment.

3 I don't remember an objection to that one.

4 Oh, that's the one you sent yesterday, I think.

5 All right. Let me pause for a moment in the
6 event there's an objection to GCA Exhibit 35.

7 Hearing nothing, it's admitted. Thank you.

8 MS. SHEEHAN: Thank you, Madam Hearing
9 Officer.

10 (Exhibit GCA 35 admitted into evidence.)

11 HEARING OFFICER ORTH: All right. If any
12 other party has a question of this GCA panel, please
13 turn on your camera.

14 I see Ms. Katz.

15 MS. KATZ: Thank you, Madam Hearing Officer.

16 CROSS-EXAMINATION

17 BY MS. KATZ:

18 MS. KATZ: I just have one question because I
19 need to be clear, because I did have Ms. Kuehn state in
20 her presentation that the -- that discussed this
21 provision and stated that we were adopting that change.

22 So did you hear that, Mr. Bartley?

23 MR. BARTLEY: Yes.

24 That change is being adopted?

25 MS. KATZ: Yes.

1 Did you hear Ms. Kuehn's testimony to that
2 effect just a little while ago?

3 MR. BARTLEY: Yes, ma'am. This morning, I
4 did.

5 MS. KATZ: Okay. Thank you.

6 HEARING OFFICER ORTH: Thank you, Ms. Katz.

7 Are there any other parties with questions of
8 this GCA panel?

9 Not seeing anyone else, I'm going to turn to
10 the Board for their questions.

11 If you're an attendee on this platform, please
12 reach out through the chat with any questions.

13 Madam Chair?

14 CHAIR SUINA: No questions at this time.

15 Again just want to reiterate I like to see the
16 collaboration between the various parties on resolving
17 some of these details. Thank you so much.

18 HEARING OFFICER ORTH: Thank you.

19 Vice-Chair Trujillo Davis.

20 VICE-CHAIR TRUJILLO DAVIS: No questions at
21 this time. Thank you.

22 HEARING OFFICER ORTH: Thank you.

23 Member Cates?

24 MEMBER CATES: No questions. Thank you.

25 HEARING OFFICER ORTH: Thank you.

1 Member Bitzer?

2 MEMBER BITZER: No questions. Thank you.

3 HEARING OFFICER ORTH: Thank you.

4 Member Garcia?

5 MEMBER GARCIA: No questions. Thank you.

6 HEARING OFFICER ORTH: Thank you.

7 And Member Honker.

8 MEMBER HONKER: No questions. Thank you.

9 HEARING OFFICER ORTH: Thank you.

10 Well, Ms. Sheehan, I think your panel has
11 escaped without fierce interrogation.

12 So thank you very much, gentlemen,
13 Mr. Copeland and Mr. Bartley.

14 MS. SHEEHAN: Thank you, Madam Hearing
15 Officer.

16 HEARING OFFICER ORTH: Thank you, Ms. Sheehan.

17 I think now we're to Kinder Morgan.

18 I see Ms. Gutierrez on the screen.

19 Ms. Gutierrez.

20 MS. GUTIERREZ: Thank you, Madam Hearing
21 Officer.

22 So consistent with the -- our discussion this
23 morning, I'd like to put up a panel of three witnesses,
24 have them present their testimony, and then make them
25 available for cross. To additionally expedite this

1 hearing process, we are prepared to provide some
2 surrebuttal regarding engines and turbines, but we would
3 like to reserve the opportunity to respond to any
4 proposal or presentation that NPS puts up on Friday, if
5 the parties are amenable to that.

6 HEARING OFFICER ORTH: I think we have to
7 agree to that, Ms. Gutierrez, because NPS will be taken
8 out of turn.

9 I see Mr. Brindley on the screen.

10 MS. GUTIERREZ: Mr. Brindley and Ms. Leslie
11 Nolting, who you have had the pleasure of meeting, and
12 then Mr. James Trent.

13 HEARING OFFICER ORTH: Okay. I believe I made
14 them all panelists.

15 All right. So I believe we've heard from
16 Ms. Nolting.

17 Let's start with you, Mr. Brindley, if you
18 would spell your name, please.

19 MR. BRINDLEY: Certainly. First name Vincent,
20 V-I-N-C-E-N-T, last name Brindley, B-R-I-N-D-L-E-Y.

21 HEARING OFFICER ORTH: If you would raise your
22 right hand.

23 Do you swear or affirm to tell the truth?

24 MR. BRINDLEY: Yes, I do.

25 HEARING OFFICER ORTH: Thank you.

1 Now I see Mr. Trent on the screen.

2 Mr. Trent, if you would please spell your
3 name.

4 MR. TRENT: James, J-A-M-E-S, Trent,
5 T-R-E-N-T.

6 HEARING OFFICER ORTH: Thank you.

7 And raise your right hand.

8 Do you swear or affirm to tell the truth?

9 MR. TRENT: Yes.

10 HEARING OFFICER ORTH: Thank you.

11 And just make sure you keep your voice up for
12 the transcript.

13 MR. TRENT: Okay.

14 MS. GUTIERREZ: Thank you, Madam Hearing
15 Officer.

16 VINCENT L. BRINDLEY, LESLIE R. NOLTING

17 and JAMES R. TRENT

18 (Relating to Topic Order 24)

19 having been first duly sworn or affirmed, were
20 examined and testified as follows:

21 MS. GUTIERREZ: For the benefit of the Board
22 and the parties, this testimony will relate to Kinder
23 Morgan direct testimony, Exhibit VI, and rebuttal
24 testimony, Exhibit XIII.

25 And, Madam Hearing Officer, would you please

1 give me sharing permissions, please?

2 I will introduce Mr. Brindley while we do
3 that.

4 DIRECT EXAMINATION OF VINCENT L. BRINDLEY
5 BY MS. GUTIERREZ:

6 Q. Mr. Brindley, where are you employed, and what
7 is your current position?

8 A. I am employed by Kinder Morgan. I am a
9 technical supervisor for Division 2 of Kinder Morgan.

10 Q. And how long have you been in that -- oh, I'm
11 sorry. I skipped already.

12 Could you please briefly describe your duties
13 in this position?

14 A. Certainly. I supervise four engine
15 technicians and three control specialists, and I provide
16 direct support to the company's compression facilities,
17 including reviewing engine analyses and maintenance
18 work.

19 Q. And how long have you been in that position?

20 A. For approximately 10 years, but I've worked
21 for Kinder Morgan and its predecessor companies for --
22 since 2000.

23 Q. And did you submit written direct technical
24 testimony at Kinder Morgan Exhibit VI on the
25 requirements in the proposed rules related to engines

1 and turbines?

2 A. Yes, I did.

3 Q. Do you have any changes to that testimony?

4 A. I have no changes.

5 Q. Do you adopt your written testimony here
6 today?

7 A. Yes, I do. I adopt it in full.

8 Q. Let me get the slide deck up.

9 Okay. Could you please summarize for the
10 Board your testimony regarding engines and turbines.

11 A. Yes, of course.

12 Good afternoon, Madam Chair and Board Members.

13 Thank you for the opportunity to present
14 technical testimony today.

15 My presentation is really just to present to
16 the Board an introduction to engines and turbines as
17 they are used in the transmission segment. Because the
18 Department already gave us some background, I will be
19 very brief and be available for questions.

20 As a transmission company, Kinder Morgan's
21 function is to move the gas from across long distances
22 to residential and commercial and industrial customers.
23 We operate approximately 15 reciprocating compression
24 engines and 15 combustion turbines in New Mexico that we
25 anticipate will be subject to these proposed rules.

1 In other words, there's approximately 30 units
2 that will exceed the relevant horsepower thresholds in
3 Tables 1 and 3 that are located in the counties subject
4 to this rule proposal. These engines and turbines make
5 the movement of natural gas through our transmission
6 system possible.

7 This slide just shows there are numerous
8 transmission compressor stations along the pipeline
9 network. The engines and turbines recompress the
10 natural gas at each station to push it along to the next
11 station.

12 I wanted to give -- quickly give some context
13 for these engines and turbines. These are very
14 expensive and very large. On the slides shown you can
15 see a reciprocating integral engine on the left and a
16 turbine -- combustion turbine with compressor on the
17 right side.

18 A compressor reciprocating engine typically
19 weighs at least 100,000 pounds and can weigh as much as
20 365,000 pounds. Similarly, a combustion turbine can
21 weigh more than 165,000 pounds. Keeping the size of
22 these machines in mind, it's important when considering
23 certain possible outcomes of the requirements of these
24 rules.

25 For example, if a control would require an

1 engine site to be reconfigured, this could require
2 disassembly of the machine itself, which as you can see
3 would be a significant undertaking.

4 The costs for new engines and turbines are
5 also very high. A new engine can cost \$300,000 for a
6 sub 1,000 horsepower engine to as much as \$7 million for
7 an engine larger than 5,000 horsepower. The price of a
8 new turbine range -- can range from close to 7 million
9 for a turbine of approximately 10,000 horsepower to more
10 than \$10 million for a turbine of approximately
11 30,000 horsepower. In each case not including
12 engineering and installation costs. That's simply the
13 cost of the hardware.

14 And because of the size and complexity of
15 these machines, it takes months and sometimes years from
16 the time an engine and turbine is ordered until the time
17 it is received, installed and ready for operation.

18 So this concludes my portion.

19 I'll pass this to Ms. Leslie, my -- my
20 colleague.

21 MS. GUTIERREZ: Thank you very much,
22 Mr. Brindley.

23

24

25

1 DIRECT EXAMINATION OF LESLIE R. NOLTING

2 BY MS. GUTIERREZ:

3 Q. Ms. Nolting, could you please introduce
4 yourself.

5 I think you may be muted if you're speaking.

6 A. Sorry about that.

7 Q. There you go.

8 A. Hi. Thank you.

9 Good afternoon. It's good to see everyone
10 again.

11 My name is Leslie Nolting, and I am an EHS
12 manager at Kinder Morgan, and my position focuses on air
13 permitting and compliance.

14 Q. Ms. Nolting, did you submit written direct
15 technical testimony at Kinder Morgan Exhibit VI
16 regarding the requirements in the proposed rules related
17 to engines and turbines?

18 A. Yes, I did.

19 Q. Do you have any changes to that testimony?
20 And if not, do you adopt your testimony here today?

21 A. I do not have changes to my testimony, and
22 yes, I adopt it in full.

23 Q. Thank you.

24 Could you please summarize for the Board your
25 testimony regarding engines and turbines?

1 A. Yes. Happy to.

2 Good afternoon, Madam Hearing Officer, Madam
3 Chair and Board Members.

4 Thank you for the opportunity to summarize my
5 testimony on engines and turbines.

6 I will be brief as NMED has accepted our
7 proposed changes on the two issues that I'll discuss,
8 and we understand there are no objections to these
9 changes. I will just describe these briefly for the
10 Board, because although these are agreed upon, they are
11 important changes.

12 First, for emergency engines, we requested a
13 clarification that aligned the reference to emergency
14 engines with federal rules, and NMED has agreed to those
15 changes so as not to disrupt the use of emergency
16 engines in emergency situations when they are needed.

17 We also asked for clarifying changes in
18 reference to the requirement to maintain and repair
19 engines and turbines consistent with manufacturer's
20 recommendations. As NMOGA noted and NMED discussed,
21 manufacturer recommendations may be outdated and
22 reference to good engineering and maintenance practices
23 is an appropriate alternative.

24 Thank you for your time today, and I will pass
25 this to Mr. James Trent on a few of our higher priority

1 issues.

2 MS. GUTIERREZ: Thank you very much,
3 Ms. Nolting.

4 DIRECT EXAMINATION OF JAMES R. TRENT
5 BY MS. GUTIERREZ:

6 Q. Mr. Trent, can we do a quick mike check.

7 I think you may be muted, Mr. Trent.

8 A. Now can you hear me?

9 Q. We can hear you now. Glad we did the mike
10 check.

11 A. Okay.

12 Q. Mr. Trent, where are you employed, and what is
13 your current position?

14 A. I'm employed by Kinder Morgan. I am a staff
15 engineer.

16 Q. And how long have you been in that position?

17 A. I have been in this position for about 11
18 months. However, I've worked with Kinder Morgan or its
19 predecessor companies on engines and turbines and air
20 quality matters for over 20 years, including as the
21 engineering manager for seven years.

22 Q. Thank you.

23 And can you please describe your work
24 experiences for us?

25 A. Yes. In my current role, I work in the

1 engineering design group, focusing on developing scopes
2 for emissions retrofit projects and compression
3 expansion and replacement projects on all of Kinder
4 Morgan's interstate systems. I also work as part of a
5 companywide team finding solutions to achieve compliance
6 under new and proposed rules in New Mexico, Arizona, New
7 York, Pennsylvania and Colorado.

8 In my prior role, I was the manager of the
9 compression engineering and emissions compliance testing
10 group, overseeing a total of 20 employees. My
11 responsibilities included overseeing the scope of new
12 business development projects, which included, without
13 limitation, selecting the type of horsepower that will
14 be installed on these projects, overseeing emissions
15 controls technology projects, working with legal and
16 operations and EHS to address emissions reductions, and
17 developing FERC form data and undertaking special
18 projects.

19 Q. Thank you, Mr. Trent.

20 Did you submit written direct technical
21 testimony at Kinder Morgan Exhibit VI regarding the
22 requirements for engines and turbines?

23 A. Yes.

24 Q. Did you submit written rebuttal technical
25 testimony at Kinder Morgan Exhibit XIII?

1 A. Yes.

2 Q. Do you have any changes to either your written
3 direct or rebuttal testimony set out in Exhibit VI or
4 XIII?

5 A. No changes.

6 Q. Do you adopt the entirety of your written
7 testimony here today?

8 A. Yes. I adopt my written testimony in full.

9 Q. Thank you, Mr. Trent.

10 Could you please summarize for the Board your
11 testimony regarding engines and turbines that you will
12 provide today.

13 A. Yes. I'd be glad to.

14 So good afternoon, Board Members, Madam
15 Hearing Officer, Madam Chair.

16 Thank you for the opportunity to discuss
17 engines and turbines with you today.

18 I'll be presenting on two topics today.

19 First, I'd like to briefly highlight certain
20 changes that the Department has made between the May
21 draft of the proposed rules and the most recent
22 September 16 draft of the proposed rules. The changes I
23 will cover are listed on the slide under the first
24 bullet point. I won't spend much time on most of these,
25 but at the Board's request, we do want to highlight

1 changes that have been made that Kinder Morgan supports.

2 After that summary, I will address just a
3 couple points clarifying the Department's direct
4 testimony.

5 Q. Thank you, Mr. Trent.

6 And could you just please briefly run through
7 the Board -- with -- sorry -- run through for the Board
8 the NMED's revisions in the September 16 draft that
9 Kinder Morgan supports.

10 A. Yes. I'd be happy to.

11 The changes we support are shown on this
12 slide, and just -- and I just want to tick through them
13 quickly and address a few points in support of a few of
14 these changes that are particularly important for the
15 Board to understand.

16 For the first -- sorry. For the -- first, the
17 Department revised standards for new and existing
18 engines, and we can support these standards.

19 We would also support NMOGA's proposed
20 revision to increase the CO standard to 2 grams, which
21 would assist with the interplay between potential NOx and
22 CO emissions.

23 I do think it is worth noting that even though
24 Kinder Morgan can support these standards and the
25 standards in Table 3, as I'll discuss next, I don't want

1 it to get lost that meeting these standards will still
2 require a significant investment to retrofit our engines
3 and turbine fleets.

4 That said, we have said from the beginning
5 that with reasonable regulation there are opportunities
6 for emissions reductions with respect to engines and
7 turbines, and we believe these standards strike an
8 appropriate balance.

9 Additionally, NMOGA put on a sound testimony
10 objecting to the National Park Service's proposal to
11 regulate all engines of all sizes. In other words,
12 including small engines that the Department has not
13 currently proposed to regulate. In an effort to
14 streamline this hearing, we will not reiterate those
15 important points, but Kinder Morgan supports NMOGA's
16 objections to these unreasonable proposals.

17 Q. And, Mr. Trent, I might just ask one
18 clarifying question, and that NMOGA has reserved its
19 opportunity to present that testimony until Friday; is
20 that correct?

21 A. That's correct.

22 Q. Okay. Thank you.

23 Please continue.

24 A. The Department has revised the standards for
25 new and existing turbines, and we support these

1 standards.

2 I want to pause on this Table 3 and briefly
3 talk through how important these changes are.

4 The revised standards for existing turbines
5 are critically important. For turbines in the 1,000 to
6 4,000 brake horsepower range, the only control option
7 for achieving 50 ppm, which was the original proposed
8 limit, is selective catalytic reduction, or SCR.

9 As NMOGA's witnesses described earlier, SCR is
10 a type of postcombustion control system, meaning that it
11 is applied after combustion occurs in the engine or
12 turbine. This is different from other control
13 technologies which are applied to the combustion process
14 itself and tend to be cheaper than SCR.

15 A very important point on this issue is that
16 other control technologies, like water or steam
17 injection, are not available for many turbines in this
18 1,000 to 4,000 brake horsepower size category.

19 Our turbines in this size category are
20 manufactured by Solar Turbines. Water injection is not
21 available for many Solar Saturn turbine models. Even
22 where water injection theoretically could be an option,
23 it is not clear that this would be an advisable control
24 technology considering the large volume of deionized
25 water that it would require.

1 These points were made clear in Solar
2 Turbine's written testimony.

3 It is important to note that at 50 ppm NOx
4 standard, our GE Frame 3 turbines, which are larger than
5 4,000 horsepower, would also require SCR. For our GE
6 Frame 3 turbines, a representative from Baker Hughes,
7 which is a GE company, communicated to us that there is
8 no NOx abatement system, including no water injection
9 system, available for these units.

10 I provided this letter as Attachment T to my
11 rebuttal testimony.

12 We also support the changes for new turbines
13 in the 1,000 to 4,000 brake horsepower size range, and
14 we flag that these revisions are also critically
15 important. I am not aware of any new turbine in this
16 size range available on the market that meets 25 ppm NOx
17 without added controls.

18 This slide shows a list of all the different
19 manufacturers we investigated to determine whether a
20 unit of this size could meet the threshold. The answer
21 was no to all of them. This means that because SCR is
22 the only option for turbines of this size, the original
23 proposed 25 ppm NOx standard would force operators into
24 installing costly SCR controls even on a brand new unit.

25 Another important change that the Department

1 made and that we are asking the Board to adopt was to
2 add a compliance schedule for retrofitting existing
3 turbines. Originally the proposed rules required
4 turbines to be retrofitted within only two years.

5 Because we operate roughly in equal numbers of
6 engines and turbines that would require controls, and
7 because turbines are just as time and cost intensive to
8 retrofit as engines, we proposed a compliance schedule
9 for turbines similar to the existing schedule for
10 engines, which NMED incorporated.

11 Finally, I'd like to highlight two relatively
12 minor but very important revisions that the Department
13 made in response to party testimony, including Kinder
14 Morgan's.

15 First, the Department revised the provision
16 that allows an operator reduced engine hours in lieu of
17 compliance with the emission standards to make clear
18 that only emissions reductions equivalent to those
19 achieved under the standards themselves would be
20 required. They also added the same provision for
21 turbines. We support both of these changes.

22 Second, the Department added a sentence in the
23 engine load equation making clear that if a
24 manufacturer's rated brake-specific fuel consumption is
25 unavailable the operator can use an alternative

1 methodology. We have run into this issue several times
2 so we appreciate that this change has been made, and we
3 ask the Board to adopt it.

4 Q. Thank you very much, Mr. Trent.

5 Could you now please summarize for the Board
6 your testimony regarding Kinder Morgan's clarifications
7 to the Department's direct testimony?

8 A. Yes. I'd be happy to.

9 I want to briefly address the NMED's cost
10 estimates, their testimony regarding the availability of
11 engine upgrades on certain -- and their testimony
12 regarding the availability of engine upgrades on certain
13 older engine units.

14 The Department provided a number of cost
15 estimates in its direct testimony. These estimates
16 centered on the costs to control engines and turbines to
17 the NOx and VOC standards as originally proposed. For
18 that reason, certain of the numbers are no longer
19 relevant now that the standards have been revised.

20 However, we think it is important to clarify a
21 few differences between our anticipated control costs
22 that we submitted in written testimony and the
23 Department's estimates.

24 First, for certain costs it appears that the
25 Department averaged costs across older and newer units.

1 In our experience, it can be significantly more
2 expensive to retrofit an older unit than a newer unit.
3 Because of these differences, averaging newer units with
4 older can distort the real cost of retrofitting older
5 units.

6 Second, for the costs to control NOx from
7 existing turbines smaller than 15,900 brake horsepower
8 in size, it is our understanding that the Department did
9 not include SCR cost in their overall cost per ton
10 estimate of \$4,076, although the NMED provided SCR costs
11 on these units for comparison. I understand from the
12 Department's spreadsheet that to arrive at this \$4,076
13 cost per ton estimate NMED only included the costs of
14 installing water or steam injection.

15 This is -- this is presumably because they
16 believe that water and steam injection was a viable
17 control option and selected it for evaluation because it
18 is cheaper. As we discussed, this is not true in most
19 cases. Evaluating only water or steam injection likely
20 resulted in underestimating overall costs.

21 Where the Department did evaluate SCR for
22 turbines larger than 15,900 brake horsepower, those
23 estimates are lower than our anticipated costs.
24 Similarly, the Department's cost estimate to control
25 VOCs by installing oxidation catalysts are also lower

1 than our anticipated costs.

2 I'd also like to briefly address the
3 Department's testimony regarding the availability of
4 certain engine upgrades. They testified that there are
5 upgrades available for several engines to meet a NOx
6 limit of .5 grams per brake horsepower-hour.

7 While that is true, in the interest of
8 ensuring that the Board has as much relevant information
9 before it as possible, and to add on to what
10 Mr. Lisowski testified for NMOGA, I'd like to point out
11 that there are certain older engine units that no
12 service company has been able to upgrade to enable them
13 to meet a .5 gram per brake horsepower-hour NOx standard.

14 For example, the manufacturer Worthington
15 makes a 1,200 horsepower SLHC model engine that cannot
16 be upgraded to meet a .5 gram per brake horsepower-hour
17 NOx standard.

18 The Worthington Mainliner engine also cannot
19 be upgraded to meet .5 grams of brake horsepower-hour NOx
20 standard. We recently added emission controls to two of
21 these Mainliner units in Texas and Pennsylvania. The
22 best NOx emissions that we could achieve was about
23 5 grams per brake horsepower-hour, even with spending
24 several million dollars on controls.

25 This reality of limited availability of

1 upgrades on certain engines supports the need for
2 alternative compliance options, which I'll talk about in
3 greater detail shortly.

4 Even with the Tables 1, 2 and 3 as proposed,
5 certain technology and economic challenges remain to
6 achieve the standards for every unit. Recognizing this
7 fact, the Department has proposed two alternative
8 compliance options that are listed on this slide.

9 Kinder Morgan supports these proposals.

10 I'll move now to my surrebuttal testimony to
11 explain why it is critical for the Board to adopt the
12 proposals as currently drafted by the Department.

13 MS. GUTIERREZ: Madam Hearing Officer, I don't
14 know if you're also having a delay from Mr. Trent.

15 HEARING OFFICER ORTH: Yes. Yes. He should
16 slow down, and we should pause until he figures out the
17 connection there. It might help if he turns off his
18 video.

19 Q. (BY MS. GUTIERREZ) Mr. Trent --

20 A. Okay.

21 Q. -- I think we just lost you on your talking
22 point to slide 25. It was cutting in and out a little
23 bit. So if you want to restate that point, and then
24 we'll shift to your --

25 A. Okay.

1 Q. -- surrebuttal.

2 A. Can you hear me now?

3 Q. Yes, we can.

4 A. Okay. All right. Let's see.

5 All right. Even with the Tables 1, 2 and 3 as
6 proposed, certain technological and economic challenges
7 remain to achieve the standards for every unit.

8 Recognizing this fact, the Department has proposed two
9 alternative compliance options that are listed on this
10 slide. Kinder Morgan supports these proposals.

11 I'll move now to my surrebuttal testimony to
12 explain why it is critical for the Board to adopt the
13 proposals as currently drafted by the Department.

14 Q. Thank you.

15 If folks will just bear with me as I
16 transition to the new slide deck.

17 Thank you. Okay.

18 Thank you for your summary of your direct and
19 rebuttal testimony, Mr. Trent.

20 Could you please summarize your surrebuttal
21 testimony regarding the alternative compliance options
22 related to engines and turbines that the Department has
23 proposed.

24 A. Yes. I'd be happy to.

25 Before I begin, I just want to say that the

1 addition of the alternative compliance options to
2 account for technical and economical infeasibility is
3 absolutely critical to Section 113.

4 Q. Mr. Trent, I think we --

5 A. (Unintelligible and/or inaudible) proposed
6 standards, the costs on certain of those units will be
7 very, very high. Because of this, having one or more --

8 HEARING OFFICER ORTH: Mr. Trent needs to
9 speak more slowly.

10 MR. TRENT: Okay. Sorry.

11 Q. (BY MS. GUTIERREZ) Mr. Trent, I think -- I
12 think we lost you again at the beginning of the talking
13 point to slide 3 on this deck. It was cutting in and
14 out again.

15 A. Okay.

16 Can you hear me now?

17 Q. Yes, we can hear you now.

18 A. All right.

19 Before I begin, I just want to say that the
20 addition of the alternative compliance options to
21 account for technical or economic infeasibility is
22 absolutely critical to Section 113.

23 Based on our estimates to control our units to
24 the proposed standards, the costs on certain of those
25 units would be very, very high. Because of this, having

1 one or more option for alternative compliance is
2 essential to this rule. For this reason, and as the
3 Department has described, it is proposing two
4 alternative compliance options.

5 The first is an Alternative Compliance Plan,
6 or ACP, which involves grouping units and achieving
7 equivalent total reductions from some combination of
8 controls across that group.

9 The second is an alternative emissions
10 standard for individual engines or turbines, which can
11 be used in the event that controlling a certain unit is
12 technically impracticable or economically infeasible.

13 We support the Department's alternative
14 compliance proposals as proposed on September 16, and I
15 flagged that there are important changes in the
16 September draft that are foundational to ensuring that
17 Section 113 is workable for operators.

18 As Kinder Morgan's counsel presented in
19 opening statement, the Board should give due weight to
20 issues of technical practicality and economic
21 reasonableness in crafting these rules.

22 Adopting provisions that clearly articulate a
23 workable process for individual alternative emission
24 standards based on these considerations is contemplated
25 by the authority for this rulemaking. This is very

1 important especially in circumstances where the costs to
2 undertake a certain retrofit would be enormously
3 expensive in comparison to the very small environmental
4 benefit that the retrofit would achieve.

5 I'd like to provide some additional background
6 about why the individual alternate emission standard
7 process is so important.

8 For this rulemaking, we evaluated certain case
9 study units to understand the costs that would be
10 required to comply with the originally proposed NOx
11 standards. The case studies are summarized on this
12 slide. Because the Department provided comment on our
13 Caprock estimate, I will focus on that station today.

14 I think it would be useful to walk through our
15 process in calculating the costs to control Caprock's
16 two turbines. To start, because there is no other
17 control option available for the two Caprock GE Frame 3
18 units, as demonstrated by the letter from Baker Hughes
19 that I included with my rebuttal testimony as Attachment
20 T, these units would require SCR.

21 For the Caprock units, we gathered a
22 significant amount of data to determine the costs
23 associated with installing the necessary SCR control. I
24 won't linger on this slide, but the process we undertook
25 to evaluate the cost per ton estimate was nothing short

1 of exhaustive. This slide outlines our process which
2 took over six weeks to complete.

3 I personally oversaw this data collection and
4 analysis, spending about 120 hours of my time over
5 approximately three months on this specific effort.

6 With the cost data that we collected, we
7 analyzed the cost effectiveness of purchasing,
8 installing SCR at Caprock. The cost effectiveness is
9 measured by dividing the total cost of the control by
10 the total emissions reduced. This provides a dollar
11 amount per ton of pollutant reduced.

12 To calculate this cost per ton amount, we used
13 for baseline emissions a representative recent emissions
14 test result multiplied by annual operating hours, which
15 are calculated based on three-year average. We used
16 28 -- 2018 through 2020.

17 For the amount of emissions reductions, we
18 counted from baseline emissions to the applicable 50 ppm
19 NOx limit. We did this because this measures the cost to
20 achieve the actual proposed standard. Our capital
21 investment estimate was based on a vendor quote.

22 To analyze -- to annualize the capital
23 investment, we used EPA's default interest rate and a
24 20-year life of control period, consistent with EPA's
25 control cost manual. We based annual O&M costs on EPA's

1 cost control spreadsheet.

2 The results of this effort for Caprock are
3 summarized on the chart shown on this slide.

4 As our counsel presented in the opening
5 statement, we researched cost effectiveness thresholds
6 to understand the reasonableness of various costs. The
7 highest threshold that we identified for NOx was 7,000
8 per ton of NOx reduced, which is -- which was a
9 determination made by the New Mexico Environmental
10 Department during the recent regional haze process.

11 As you can see, the costs on a per ton basis
12 of putting SCR on the units at Caprock, underlined in
13 the far right column, are much, much higher than that
14 threshold, at roughly 80,000 and 55,000 per ton of NOx
15 reduced.

16 In Exhibit 1 to the Department's rebuttal
17 testimony, the Department discussed our cost estimates
18 for retrofitting the two turbines that drive our Caprock
19 compressor station with SCR.

20 In this discussion, the Department states that
21 there are two defects in the way that we calculated
22 costs for the Caprock units, which they believe resulted
23 in inflated cost estimates for the SCR installation.
24 The Department says that, one, we used unrepresentative
25 baseline data, in particular that our three-year

1 lookback for operating hours was not representative;
2 and, two, we limited emissions reductions to those
3 needed to reach the applicable 50 ppm limit.

4 First, we'd like to thank the Department for
5 its engagement with our direct testimony. In response
6 to the concerns that the Department raised, we conducted
7 additional analysis on Caprock following the submittal
8 of rebuttal testimony that I want to present here.

9 For our first high-end analysis, we used a
10 10-year operating hour average, multiplied by our most
11 recent stack test result to calculate baseline
12 emissions. We then calculated the tonnage reduction
13 from the baseline to 50 ppm standard. We separately
14 calculated the tonnage and assumed 70 percent
15 efficiency from the SCR.

16 Q. Mr. -- Mr. Trent, I think -- I think we had
17 another glitch in --

18 A. This control efficiency assumption --

19 Q. Mr. Trent --

20 A. Okay.

21 Q. -- can you hear me?

22 Yeah. I think it glitches, and then it --

23 A. I hear you.

24 Can you hear me?

25 Q. I can hear you.

1 I think it will glitch sometimes, and then it
2 speeds up your voice. So I think we lost you at "We
3 separately calculated."

4 MS. KATZ: Madam Hearing Officer, I'm sorry.

5 Can I just say that I believe that Kinder
6 Morgan is -- agrees with the Department's proposals
7 currently, and I feel like this is a lot of testimony
8 that's not really in the spirit of what the parties had
9 decided, which was not going into extensive depth on
10 things where we already had reached agreement.

11 So I'm just wondering -- I'm confused about
12 that, I guess, at this point.

13 HEARING OFFICER ORTH: Ms. Gutierrez, do we
14 misunderstand --

15 MS. GUTIERREZ: Yes. Thank you, Madam --
16 thank you, Madam Hearing Officer.

17 And I understand your concern, Ms. Katz. I
18 think from our perspective in particular on the
19 surrebuttal, there was information presented or response
20 from the Department that we feel is important to correct
21 on the record. If Kinder Morgan didn't have an
22 opportunity to present additional cost analysis in
23 response to some of the statements in rebuttal, that
24 sort of would just be left open-ended.

25 So we think it's important to present this

1 additional analysis that we completed.

2 MS. KATZ: Okay. But there's no actual
3 changes that it's -- to the rule that this is
4 supporting.

5 MS. GUTIERREZ: That's correct. We continue
6 to support NMED's proposal on alternate compliance. I
7 think from our perspective we want to emphasize to the
8 Board how important this is, and this is part of the
9 reason for doing that.

10 I think, you know, unfortunately, without
11 having heard testimony from other parties on, you know,
12 where they stand, in particular the one that we're going
13 to hear on Friday, we do think it's important to set,
14 you know, baseline on why these additional provisions
15 are important.

16 MS. KATZ: Okay. Thank you.

17 HEARING OFFICER ORTH: Thank you,
18 Ms. Gutierrez.

19 Mr. Trent, thank you for speaking slowly, and
20 I will continue to rely on Ms. Gutierrez to interrupt
21 you in the event you are cutting out again.

22 Q. (BY MS. GUTIERREZ) Mr. Trent, are you still
23 with us?

24 A. Yes.

25 Can you hear me?

1 Q. I can hear you now. Yes.

2 I think we stopped at "We separately
3 calculated the tonnage."

4 A. Okay. We separately calculated the tonnage
5 reduction using an assumed 70 percent efficiency from
6 the SCR. This control efficiency assumption is
7 consistent with the Department's methodology. We then
8 used each of these reductions to calculate the cost
9 effectiveness of installing SCR using the cost
10 information that we provided to the Board in written
11 testimony.

12 The chart on this slide shows the results.

13 The first row shows the original case that we
14 submitted to the Board, approximately 80,000 and 55,000
15 per ton. The second row shows the updated analysis
16 assuming reduction down to 50 ppm standard, 162,000 and
17 142,000 per ton. And the third row shows the updated
18 analysis assuming reduction based on a 70 percent
19 control efficiency, 153,000 a ton and 114,000 per ton
20 per NOx reduced.

21 As you can see, the updated costs are even
22 higher than our prior estimates. This is because these
23 units were used more on average in the last three years,
24 which was the original time frame we did the
25 calculations on, than in the last 10 years on average.

1 It is important to note that these units are
2 not used at their full permit capacity. In its
3 alternative cost analysis, the Department's high-end
4 estimates assumed use of the turbines at their full
5 permitted capacity. This is simply not reflective of
6 our operation at Caprock and shouldn't be used to assess
7 costs.

8 We are trying to assess actual control costs
9 for this station, and using an average of actual
10 operating hours over some set period of time, be it
11 three years or 10 years, is a more principled way to do
12 that.

13 This slide shows our low-end cost estimate.
14 Here we also used a 10-year average to calculate the
15 operating hours. However, this time, instead of using
16 our most recent stack test, we multiplied our operating
17 hours by our permitted operating limits in pounds per
18 hour. This is the maximum that we are able to emit. So
19 it is representative of the upper limit of our potential
20 emissions.

21 We again calculated reductions down to 50 ppm
22 standard and separately calculated reductions based on a
23 70 percent control efficiency. As you can see, the
24 costs to install the technology at Caprock remain very,
25 very high, and ultimately not cost effective at 114,000

1 and \$49,000 per ton of NOx reduced.

2 These costs illustrate the need for a clear
3 and workable case-by-case alternative emission standard
4 process.

5 In sum, we support the Department's proposals
6 for an Alternative Compliance Plan and an individual
7 alternative emission standard as reflected in the
8 September 16 draft, and we ask the Board to adopt those
9 proposals.

10 My testimony in this proceedings underscores
11 why these provisions are critically important to ensure
12 this set of rules at Section 113 is reasonable.

13 That concludes my summary of my direct,
14 rebuttal and surrebuttal testimony.

15 Thank you again for the opportunity.

16 I'm happy to answer any questions.

17 MS. GUTIERREZ: Thank you, Madam Hearing
18 Officer.

19 And the panel is available for questions.

20 HEARING OFFICER ORTH: Thank you very much.

21 Let me pause for a moment for other parties to
22 turn on their camera with any questions.

23 Not seeing questions from other parties, I'll
24 turn now to the Board.

25 If you're an attendee on this platform and

1 would have a question, please reach out through the
2 chat.

3 EXAMINATION

4 BY THE BOARD:

5 HEARING OFFICER ORTH: Madam Chair, do you
6 have questions of the Kinder Morgan panel?

7 CHAIR SUINA: Thank you so much, Madam Hearing
8 Officer.

9 And it -- and like Ms. Katz mentioned, it
10 seems like Kinder Morgan and NMED are in alignment and
11 in agreement, right? And I think the technical
12 testimony also supports that; is that correct?

13 Yeah. Okay.

14 MS. GUTIERREZ: Yes.

15 CHAIR SUINA: Just real quick, just out of
16 curiosity, I know you brought up the Caprock example.

17 About how many other engines are in this
18 category in terms of what Kinder Morgan has would be
19 really difficult or cost -- cost prohibitive to upgrade?

20 MR. TRENT: So Caprock has two GE Frame 3
21 units, and in this category we have 10 of these units
22 across four different stations.

23 CHAIR SUINA: And those are all in New Mexico?

24 MR. TRENT: Yes. There are four different
25 compressor stations in the affected counties of this

1 rule.

2 CHAIR SUINA: Okay.

3 And how many other stations do you have in New
4 Mexico? Other than these 10. Sorry.

5 MR. TRENT: (Unintelligible and/or inaudible).

6 Leslie, do you --

7 MR. BRINDLEY: I think in my testimony we --
8 we've identified 30 units that are potentially subject
9 to this. I don't -- I can't split out which ones may be
10 too costly at the moment.

11 CHAIR SUINA: Okay. Thank you for that.

12 And thank you again for your testimony.

13 Appreciate it.

14 HEARING OFFICER ORTH: Thank you.

15 Vice-Chair Trujillo Davis?

16 VICE-CHAIR TRUJILLO DAVIS: I don't have any
17 questions at this time, but again thank you for your
18 testimony. That was very enlightening.

19 HEARING OFFICER ORTH: Thank you.

20 Member Cates?

21 MEMBER CATES: No questions right now. Thank
22 you.

23 HEARING OFFICER ORTH: Thank you.

24 Member Bitzer?

25 MEMBER BITZER: No questions. Thank you.

1 HEARING OFFICER ORTH: Thank you.

2 Member Garcia.

3 MEMBER GARCIA: No questions. Thank you.

4 HEARING OFFICER ORTH: And Member Honker.

5 MEMBER HONKER: No questions. Thank you.

6 HEARING OFFICER ORTH: All right. Thank you.

7 Ms. Gutierrez, is there any follow-up?

8 MS. GUTIERREZ: I just have one follow-up

9 question for clarification.

10 REDIRECT EXAMINATION

11 BY MS. GUTIERREZ:

12 MS. GUTIERREZ: I think the question from
13 Chair Suina, if I understood it correctly, was how many
14 compressor stations in the State of New Mexico does
15 Kinder Morgan operate.

16 And I don't think we have presented that data
17 here, but we would be happy to follow up with that
18 information, and we can get that for the Board.

19 MS. NOLTING: I think we have -- I think we
20 have 13 stations that are going to be subject to the
21 rule. We have stations in New Mexico that are not in
22 the subject counties, and I think our total in New
23 Mexico is 23.

24 But I -- yeah. I would like the opportunity
25 to follow up and make sure that's correct. That's

1 approximately correct.

2 MS. GUTIERREZ: No further questions from me,
3 Madam Hearing Officer.

4 HEARING OFFICER ORTH: Thank you,
5 Ms. Gutierrez.

6 Ms. Nolting, Mr. Brindley, Mr. Trent, thank
7 you, all.

8 Excuse you for the moment.

9 If I read the spreadsheet correctly, we would
10 go from here to the Commercial Disposal Group.

11 Is that true?

12 MS. SHPALL: This is Casey Shpall.

13 I believe that's correct.

14 HEARING OFFICER ORTH: All right, Ms. Shpall.

15 And your witness is witness Campsie?

16 I believe I have already panelized your
17 witness. Let me see. Is that true? Yes. Ashley
18 Campsie.

19 Ms. Campsie, let's do a sound check real
20 quick.

21 MS. CAMPSIE: Can you hear me all right?

22 HEARING OFFICER ORTH: Yeah. You're a little
23 soft, but we can hear you.

24 If you would spell your name, please.

25 MS. CAMPSIE: A-S-H-L-E-Y C-A-M-P-S-I-E.

1 HEARING OFFICER ORTH: Thank you.

2 And raise your right hand.

3 Do you swear or affirm to tell the truth?

4 MS. CAMPSIE: I do.

5 HEARING OFFICER ORTH: Thank you very much.

6 ASHLEY CAMPSIE

7 (Relating to Topic Order 24)

8 having been first duly sworn or affirmed, was

9 examined and testified as follows:

10 DIRECT EXAMINATION

11 BY MS. SHPALL:

12 HEARING OFFICER ORTH: And, Ms. Shpall, if

13 Ms. Campsie starts cutting in and out, I'm going to

14 recommend the camera trick. So thank you.

15 MS. SHPALL: Sounds good.

16 Are you ready?

17 MS. CAMPSIE: Yep.

18 Q. (BY MS. SHPALL) Ms. Campsie, did you offer

19 written and rebuttal testimony in this matter?

20 A. Yes.

21 MS. SHPALL: And Ms. Campsie's written direct

22 testimony is Appendix B to Commercial Disposal Group's

23 notice of intent to file direct testimony, and her CV is

24 attached to her testimony, and her rebuttal testimony is

25 Appendix B to Commercial Disposal Group's notice of

1 intent to file rebuttal testimony.

2 Are there any objections to those exhibits?

3 HEARING OFFICER ORTH: Let me pause for a
4 moment in the event that there are objections.

5 I don't hear any.

6 The exhibits are admitted.

7 MS. SHPALL: Thank you.

8 Q. Ms. Campsie, please state your name and
9 employer and your position for the Board.

10 A. My name is Ashley Campsie. I'm president of
11 Evergreen Environmental Engineering.

12 Q. And what are your duties at Evergreen?

13 A. I own and operate all aspects of this firm,
14 specializing in air quality support.

15 Q. And could you please summarize your expertise
16 as it relates to your testimony in these proceedings?

17 A. Yes. I have over 25 years of experience in
18 public and private environmental sectors, a majority of
19 which has been focused on developing a specialty in air
20 quality permitting and compliance for the oil and gas
21 industry.

22 My past experience includes working as a
23 permit writer for the Colorado Air Pollution Control
24 Division, an environmental engineer for a large
25 midstream oil and gas company, a senior project

1 engineer/manager for CH2M Hill, and served for six years
2 as a commissioner on the Colorado Air Quality Control
3 Commission.

4 I am a Colorado licensed professional engineer
5 and have a bachelor of science degree in chemical
6 engineering with an environmental emphasis.

7 Q. Thank you.

8 And could you give us a brief overview
9 (unintelligible and/or inaudible) matter of your direct
10 and rebuttal testimony that you filed, the topics that
11 you addressed?

12 A. Yes. I submitted direct testimony regarding
13 Section 113, on engines and turbines, and Section 126,
14 on produced water management units. I submitted
15 rebuttal testimony in response to Section 113 and
16 several definitions relating to Section 126.

17 Q. And do you have any changes to that testimony?

18 A. No.

19 Q. And do you adopt that testimony here today?

20 A. Yes, I do.

21 Q. So the Department proposes to revise
22 Section 113 to require that engines be tested annually.

23 Please explain your position on engine testing
24 frequency -- frequency as currently proposed by NMED.

25 A. We appreciate NMED's modification to the

1 proposed rule and support NMED's current modifications
2 with the exception of annual testing requirements.

3 To be consistent with NSPS Quad J, we propose
4 to change the language for testing in Sections 113 --
5 Section 113C.(4)(h) from once per calendar year to once
6 every 8,760 hours of operation or three years, whichever
7 comes first. When multiple rules apply to a source, it
8 can be unnecessarily confusing to follow.

9 If an engine is not running, it is not
10 emitting emissions. 8,760 hours is equivalent to a year
11 of operation and arguably could be more frequent than
12 once per calendar year if the testing is not conducted
13 at the same time each year. Therefore, those engines
14 that operate consistently would effectively --
15 effectively be tested annually.

16 The three years ensures engines are still
17 tested even if they don't run often. In practical
18 terms, compliance is being demonstrated without the
19 burden of tracking two different testing requirements
20 under two different rules.

21 This proposed change would also eliminate the
22 need to start up an engine just to test for those
23 engines that don't operate regularly. Starting up an
24 engine just for testing would create additional
25 emissions not otherwise emitted if the engine is not

1 operating.

2 For these reasons, we recommending changing
3 Section 113C.(4)(h) to testing once every 8,760 hours of
4 operation or every three years, whichever comes first.

5 Q. Do you have any additional comments,
6 Ms. Campsie?

7 A. Not at this time.

8 MS. SHPALL: Thank you.

9 Ms. Campsie is available for
10 cross-examination.

11 HEARING OFFICER ORTH: Thank you very much,
12 Ms. Shpall and Ms. Campsie.

13 I'll pause a moment in the event other parties
14 would like to turn on their cameras, question
15 Ms. Campsie.

16 Seeing no one, I'll turn to the Board for
17 their questions.

18 If you're an attendee on this platform and
19 have a question, please reach out through the chat.

20 Madam Chair, do you have questions?

21 CHAIR SUINA: Madam Hearing Officer, I don't
22 have questions at this time.

23 HEARING OFFICER ORTH: Thank you.

24 Vice-Chair Trujillo Davis.

25 VICE-CHAIR TRUJILLO DAVIS: I don't have

1 questions either.

2 But thank you for taking the time to speak
3 with us today.

4 HEARING OFFICER ORTH: Thank you.
5 Member Cates.

6 MEMBER CATES: No questions.
7 Thanks for the testimony.

8 HEARING OFFICER ORTH: Member Bitzer.

9 MEMBER BITZER: No questions. Thank you.

10 HEARING OFFICER ORTH: Member Garcia.

11 MEMBER GARCIA: No questions. Thank you.

12 HEARING OFFICER ORTH: And Member Honker.

13 MEMBER HONKER: No questions. Thank you.

14 HEARING OFFICER ORTH: All right. Thank you
15 very much, Ms. Shpall and Ms. Campsie.

16 MS. SHPALL: Thank you.

17 HEARING OFFICER ORTH: It is almost quarter to
18 3:00. We do need a break. Let's break until 3:00.

19 And when we return, Ms. Katz, do I understand
20 that we'll return to the Department?

21 MS. KATZ: Yes, Madam Hearing Officer, very
22 briefly.

23 HEARING OFFICER ORTH: All right. Thank you
24 very much.

25 (Proceedings in recess from 2:42 p.m. to 3:00

1 p.m.)

2 HEARING OFFICER ORTH: Let's come back from
3 the break, please.

4 Ms. Katz.

5 MS. KATZ: Madam Hearing Officer, we are
6 actually not going to have any follow-up on that last
7 section. So I believe we would be ready to move
8 forward.

9 HEARING OFFICER ORTH: Fantastic.

10 MS. KATZ: Okay. So, then, this would be
11 moving to Topic 25 on compressor seals.

12 So the Department calls Ms. Kuehn and
13 Mr. Palmer.

14 HEARING OFFICER ORTH: All right.

15 And it's usually Ms. Kuehn who drives your
16 slides.

17 MS. KATZ: Yes.

18 HEARING OFFICER ORTH: Okay.

19 MS. KATZ: She will be in the driver seat once
20 again.

21 Let me see if I can check in with her.

22 There you are.

23 MS. BISBEY-KUEHN: I apologize. I had my
24 volume turned off.

25 MS. KATZ: Oh, good. Okay.

1 ELIZABETH BISBEY-KUEHN and BRIAN PALMER.

2 (Relating to Topic Order 25)

3 having been first duly sworn or affirmed, were
4 examined and testified as follows:

5 DIRECT EXAMINATION

6 BY MS. KATZ:

7 MS. KATZ: All right. So this is -- for the
8 Board, this is -- we're on Section 20.2.50.114, which is
9 compressor seals. This testimony appears at NMED
10 Exhibit 32, starting on page 56, and NMED Rebuttal
11 Exhibit 1, starting on page 48. All right.

12 And, Ms. Kuehn, do you have the PowerPoint?

13 All right.

14 And I guess I'll just briefly -- both
15 Ms. Kuehn and Mr. Palmer have already adopted their
16 testimony.

17 And do either -- Ms. Kuehn, do you have any
18 changes to this testimony?

19 MS. BISBEY-KUEHN: No.

20 HEARING OFFICER ORTH: And, Mr. Palmer, do you
21 have any changes?

22 MR. PALMER: I do not.

23 MS. KATZ: Okay. Thank you.

24 We can move forward.

25 Ms. Kuehn, can you please give a summary of

1 compressors and compressor seals?

2 MS. BISBEY-KUEHN: Yes.

3 Good afternoon, everyone.

4 Compressors are used throughout the oil and
5 natural gas industry to compress gas for processing and
6 movement through pipelines. Compressors are mechanical
7 devices that increase the pressure of natural gas and
8 allow the natural gas to be transported from -- in
9 pipelines from the production site through processing
10 and supply chains and to the -- ultimately to the
11 consumer.

12 Venting of emissions from compressors occurs
13 from the seals, or at seal compressors, or alternatively
14 from the packing surrounding the mechanical compression
15 components, in reciprocating compressors, of the
16 compressor. And these emissions typically increase over
17 time as the compressor components begin to wear.

18 MS. KATZ: And can you discuss the rule's
19 emission standards for compressors?

20 MS. BISBEY-KUEHN: Yes. We are establishing
21 emission standards for both existing centrifugal
22 compressors, as well as new centrifugal compressors.
23 Existing compressors must control their VOC emissions
24 from the wet seal fluid degassing system by at least
25 95 percent within two years of the effective date of

1 this part, while new centrifugal compressors must
2 control their VOC emissions by at least 95 percent upon
3 startup of that unit.

4 And emissions must be captured and routed
5 through a closed vent system to a control device, a
6 recovery system, a fuel cell or a process stream.

7 And for existing reciprocating compressors,
8 the requirement is to replace the rod packing every
9 26,000 hours of operation or 36 months, whichever is
10 later, or collect the VOC emissions from the rod packing
11 and route those emissions to a control device.

12 New reciprocating compressors must comply with
13 the same requirements upon startup.

14 MS. KATZ: Thank you.

15 Mr. Palmer, can you discuss the basis for the
16 rule requirements for compressors?

17 You're muted, Mr. Palmer.

18 MR. PALMER: Sorry.

19 The compressor seal requirements are the
20 same -- on centrifugal compressors are the same as those
21 in the New Source Performance Standards for oil and gas
22 production operation subpart Quad 0a, and it requires
23 that owners and operators reduce the methane and VOC
24 emissions from centrifugal compressor wet seal fluid
25 degassing systems by 95 percent.

1 And the federal rule also requires the wet
2 seal degassing system to be equipped with a cover and
3 closed vent system that routes the gas to a control
4 system or process.

5 For reciprocating compressors, again the
6 requirements are based on the new -- NSPS Quad 0a, and
7 the NSPS requires the same -- it requires owners and
8 operators to replace the rod packing every 26,000 hours
9 or prior to 36 months from the date of the most recent
10 rod packing replacement.

11 And then it requires that owners and operators
12 collect emissions from rod packing and route to a
13 process through a closed vent system. That's if they're
14 not using the -- the rod packing replacement schedule.

15 MS. KATZ: Thank you.

16 Mr. -- Mr. Palmer, can you discuss the
17 emissions -- estimated emissions reductions and costs
18 for the rule?

19 MR. PALMER: Sure. For reciprocating
20 compressors, we estimated an emission reduction of 5,325
21 ton per year of VOC from 2,612 reciprocating compressors
22 by increasing the rod packing replacement frequency from
23 a baseline of four years to every three years. This was
24 the same as -- the emission reduction methodologies is
25 the same as used in the NSPS.

1 And this -- and also the -- the 2016 CTG. We
2 estimated the cost of that would be \$1,085 per ton of
3 VOC.

4 For centrifugal compressors, we estimated an
5 overall emission reduction of 2,087 tons per year of VOC
6 from 116 centrifugal compressors by controlling them to
7 95 percent. And that cost effectiveness would be
8 approximately \$320 per year. Hmm. That may be \$320 per
9 ton. So I will check that and have it corrected.

10 MS. KATZ: Okay. Thank you.

11 Ms. Kuehn, can you discuss the provisions on
12 applicability and emission standards under this section
13 and some of the revisions that the Department made?

14 MS. BISBEY-KUEHN: Yes. Similar to the
15 Section 113, we're -- before you is a similar structure
16 of a rule where we have applicability covered in
17 Subsection A.

18 The first paragraph addresses centrifugal
19 compressors using wet seals and located at specific
20 facilities are subject to the requirements and exempts
21 centrifugal compressors that are located at well sites
22 and transmission compressor stations per the
23 requirements of this section.

24 Paragraph A.(2) is the applicability section
25 that covers the reciprocating compressors that are

1 located at those -- those listed facilities with a
2 similar exemption for reciprocating compressors at well
3 sites and transmission compressor stations.

4 We received several comments from
5 stakeholders, including deleting this section in its
6 entirety, exempting transmission compressor stations
7 from requirement to -- from requirements of this
8 section. The Department does not agree to delete this
9 section in its entirety based on the significant VOC
10 emission reductions that were just highlighted.

11 The Department did review updated emissions
12 estimates that were provided and did agree to exclude
13 transmission compressor stations from this section based
14 on the very, very limited number of VOC emissions that
15 are -- occur as a result from -- from those facilities
16 within the process sector or the -- the industrial
17 sector.

18 Paragraph B.(1) establishes the requirements
19 for existing centrifugal compressors. We received a
20 comment to qualify those units to cover those
21 compressors with wet seals. The Department agreed with
22 that as it did align with the federal New Source
23 Performance Standard that covers these types of
24 compressors, and so that edit was made.

25 Paragraph B.(2) then covers the requirements

1 for existing reciprocating compressors. We received a
2 request to strike "under negative pressure" due to the
3 technical issues around having a negative pressure
4 system around that rod packing system.

5 And the Department did agree to strike that
6 and keep that language neutral so that the emissions can
7 be collected and routed, but there does not have to be a
8 negative pressure system installed in order to route
9 those emissions to the control device recovery system,
10 fuel cell or process.

11 Similarly in Paragraph (3), which covers new
12 centrifugal compressors, we made a similar edit there
13 with the addition of wet seals to clarify that those are
14 the types of compressors the Department intended to
15 include. We also revised the emission reduction
16 requirement from 98 to 95 percent. That was the
17 Department's intent, was to require 95 percent control
18 from -- from those units.

19 Paragraph B.(4) again covers new reciprocating
20 compressors, and the Department made a similar
21 adjustment there, striking the language "under negative
22 pressure" for the reasons previously stated. And then
23 we did strike the requirement to install an emission --
24 or equipment monitoring tag on these units, as well.

25 MS. KATZ: And can you just discuss the

1 monitoring requirements briefly and any changes made?

2 MS. BISBEY-KUEHN: Yes. And similar to the
3 reasons provided previously, we have struck the -- well,
4 let me start by saying the monitoring requirements again
5 are the monitoring of the equipment and the control
6 devices used in order to demonstrate compliance with the
7 emission standards that are established in Subsection B.
8 And so that is the overall framework of the rule.

9 And so what we have before you are all of the
10 monitoring requirements to ensure that there's a method
11 to demonstrate compliance with those emission standards.

12 In Paragraph C.(3), the only requested edit
13 was to again strike the language "under negative
14 pressure" and replace that language with "as designed,"
15 which the Department agreed with.

16 MS. KATZ: And can you review the
17 recordkeeping provisions and the revisions made there.

18 MS. BISBEY-KUEHN: Yes. And similar to
19 Subsection C, Subsection D is the recording of
20 information in order to determine compliance with the
21 emission standards. And so before you are all of the
22 recordkeeping requirements for both centrifugal
23 compressors, which are covered in D.(1), and the
24 recordkeeping requirements for reciprocating
25 compressors, which are covered in D.(2).

1 These were all minor edits to the language
2 that provide clarification. The Department agreed with
3 these -- these minor edits. They did not change the
4 intent of any specific requirement, and so we agreed in
5 large with -- in large part with all the requests to
6 revise this language.

7 And I can ask -- answer any specific questions
8 that folks have, but these are -- these are -- these
9 revisions were -- were clarifying in nature.

10 And this is the last part of the recordkeeping
11 requirements. So it's a carryover from Subparagraph
12 (2). And then Paragraph (3) and (4) we did not receive
13 significant comments on this section of the rule. We
14 agreed with the clarifying edits here.

15 There were no changes made to the reporting
16 requirements.

17 And I will just add that the parties are
18 largely in agreement about this -- this section as is,
19 and so we don't anticipate any outstanding issues
20 related to this section.

21 That's the end of the presentation.

22 MS. KATZ: Thank you.

23 And let me just go back to Mr. Palmer briefly.

24 First, on the -- the slide, did you determine
25 the correction on that \$320 should have been \$320 per

1 ton, not per year?

2 MR. PALMER: That's correct. Yes.

3 MS. KATZ: Okay.

4 And then, Mr. Palmer, were any comments
5 submitted on the tons per year of emissions from
6 compressor seals that need to be clarified?

7 MR. PALMER: Yes. We did receive some
8 testimony from other parties indicating that according
9 to the VOC emission inventory, emissions from compressor
10 seals are very, very small, six tons per year total per
11 year. That is somewhat misleading, because the
12 compressor seal emissions were not a specific item in
13 the inventory in most cases. So in most cases the
14 compressor seal emissions were probably included as
15 fugitive emissions.

16 Our spreadsheets for compressor seals, based
17 on those we indicate -- we estimated that the baseline
18 emissions would be about 11,000 tons per year and not
19 six tons per year. So they're substantial.

20 MS. KATZ: Thank you, Mr. Palmer.

21 And that is all that I have for our witnesses
22 on this topic.

23 HEARING OFFICER ORTH: All right. Thank you.

24 Do I understand, Ms. Katz, that the proposal
25 from counsel was on this topic and the next half dozen

1 or so that we would hear from the parties and then have
2 Board questioning?

3 MS. KATZ: Correct. But we are still doing
4 cross after each panel of parties.

5 HEARING OFFICER ORTH: All right.

6 So let me invite any party to turn on their
7 camera if they have questions of the Department panel.

8 Oh, I see Mr. Hiser.

9 MR. HISER: Thank you, Madam Hearing Officer.

10 CROSS-EXAMINATION

11 BY MR. HISER:

12 MR. HISER: I have a question. It's probably
13 for Mr. Palmer.

14 And that is the 5,325 tons per year of
15 savings, I think, that are talked about now, where did
16 that come from? I was looking through your direct and
17 rebuttal and didn't see that. Is that a new piece of
18 information that the Department was able to develop, or
19 where did it come from?

20 MR. PALMER: No. That is from the
21 spreadsheets we prepared in July on --

22 (Simultaneous discussion.)

23 MR. HISER: -- 6.2 or something, six tons,
24 which is why initially that we didn't think it was
25 worthwhile. So I'm just curious as to the revision.

1 MR. PALMER: Let me give you the exhibit
2 numbers.

3 Exhibit 66 is for compressor seals associated
4 with turbines, which we assumed were the centrifugal
5 compressors.

6 And Exhibit 64 are for reciprocating
7 compressors.

8 MR. HISER: Thank you. That helps us. We
9 appreciate it. Thank you much.

10 That's my last question.

11 MR. PALMER: You're welcome.

12 HEARING OFFICER ORTH: Thank you.

13 Any other parties with a question, please turn
14 on your camera.

15 Not seeing anyone.

16 As I understand it, the other parties with
17 witnesses on Section 114 include NMOGA, Kinder Morgan
18 and IPANM.

19 Shall we start with NMOGA?

20 MR. HISER: Madam Hearing Officer, yes.
21 Justin Lisowski will be our expert.

22 I'm not sure if I got cut off at the beginning
23 of that.

24 HEARING OFFICER ORTH: No. I heard you.
25 Thank you.

1 MR. LISOWSKI: And I am back online now.
2 Let me take a moment to share my screen again.

3 MR. HISER: And she's saying wait.

4 MR. LISOWSKI: No problem. Give me a second
5 anyways.

6 MR. HISER: I think she says you now can pick
7 it up.

8 MR. LISOWSKI: Okay.

9 JUSTIN LISOWSKI

10 (Relating to Topic Order 25)

11 having been first duly sworn or affirmed, was
12 examined and testified as follows:

13 DIRECT EXAMINATION

14 BY MR. HISER:

15 Q. All right. Mr. Lisowski, can you say your
16 name for the court reporter?

17 A. Yes. Justin Lisowski, L- --

18 Q. And I -- oh, you can spell it if you'd like.

19 A. L-I-S-O-W-S-K-I.

20 Q. Thank you.

21 And just a reminder that you're under oath
22 from earlier today.

23 Have you been asked to present testimony on
24 behalf of NMOGA on compressor seals?

25 A. Yes.

1 Q. And a general summary is that NMOGA raised
2 basically a question about the overall emissions
3 reduction and a safety consideration, did it not?

4 A. That is correct.

5 Q. And do you want to touch briefly on those two
6 things?

7 A. Yes. That would be great. I've got a couple
8 slides to support some of that.

9 But the -- the primary -- can everyone see my
10 screen?

11 For some reason it's not advancing.

12 Q. I see a giant gray square.

13 A. Okay. Let's try it again.

14 Sometimes my dual monitors create havoc.

15 Apologies.

16 Q. Well, if you -- okay. We can see it there, if
17 you can't --

18 (Simultaneous discussion.)

19 A. -- fighting with it.

20 But I'll --

21 (Simultaneous discussion.)

22 A. Okay.

23 Q. Yeah. Why don't you just speak to it. I
24 don't know that we really need the slides for this.

25 A. You bet.

1 So the recommendation was -- at a minimum was
2 to strike the negative pressure requirements, and
3 Ms. Kuehn and Mr. Palmer spoke upon that, as well, and
4 that being a safety concern, providing an opportunity
5 for oxygen entrainment in the -- in your system by
6 having a negative pressure system. So we appreciate
7 that recognition to -- to open up the method in which we
8 collect the gas not being overly prescriptive.

9 Q. What's the concern with oxygen entrainment in
10 control gas streams? Just for the Board. They may not
11 know what that means.

12 A. Absolutely. You know, the -- the primary
13 concern is you're introducing oxygen into a flammable
14 product, as well as you do have oxygen specs that you're
15 trying to maintain within your midstream provider and
16 gathering service. And so you've got those two items
17 that you're trying to balance out. But it's
18 predominantly a -- introducing this oxygen into an
19 explosive product.

20 Q. So basically what we're trying to do is
21 prevent it from exploding or catching fire; is that
22 correct?

23 A. That's right.

24 Q. The other question I think that we had raised
25 initially was that we -- that the initial estimate

1 seemed to be quite low.

2 And you've heard now from Mr. Palmer that they
3 believe it's about 5,000 tons.

4 Do you have any initial thoughts on that
5 revised emission estimate?

6 A. Yeah. Obviously, that changes the
7 significant -- the permit of significance. It was based
8 upon an ERG memorandum that lined out -- and that was
9 one of the tables I wanted to share on the screen, but
10 that's okay -- that lined out what the compressor seal
11 estimated VOC emission reduction would be, and the total
12 gross VOC tons per year being 13.

13 And so that is a significant departure from
14 5,000. So that was what the testimony of striking the
15 entire rule from -- from the proposal.

16 The other reason being that it's not common
17 practice to collect gas from reciprocating compressor
18 seals, and so there's not an industry standard for the
19 implementation. And because of this, the operators
20 would just elect to maintain their Quad 0a requirement
21 of replacing the packing every 26,000 hours or 36
22 months, whichever one is first.

23 And, you know, in my former midstream -- or
24 upstream company, our compressors were located in
25 buildings, and so venting gas creates high fire risk in

1 the buildings, as well as causes a lot of nuisance
2 alarming in our gas detectors. And so maintaining those
3 seals was always part of our common practice, just in
4 terms of keeping at a minimum the gas detectors from
5 going off errantly.

6 Q. So basically, in your view, we're not going to
7 see a big amount of gain here because industry already
8 does these practices anyhow.

9 A. That would be my feeling. Yes.

10 Q. Okay.

11 Other than that, we don't have any substantial
12 objections to the rule as revised by the Department,
13 correct?

14 A. That's correct.

15 MR. HISER: I don't believe that we have any
16 other questions for this witness, Madam Hearing Officer.

17 HEARING OFFICER ORTH: Thank you.

18 Will we hear next from IPANM or Kinder Morgan?

19 MS. KATZ: I believe that there would be first
20 cross if anybody wanted to cross Mr. Lisowski.

21 HEARING OFFICER ORTH: I am sorry, Ms. Katz.
22 You're right.

23 MR. ROSE: Madam Hearing Officer, just to give
24 you an indication, we do not expect to present
25 Mr. Brown. His testimony was on Section 112, and that's

1 referenced throughout. So he was only listed because
2 112 is listed in that subsection. So Mr. Brown's
3 testimony is complete, and he will not be testifying on
4 the individual subsections here.

5 HEARING OFFICER ORTH: Thank you very much.

6 All right. So if you would, please, turn on
7 your camera if you're a party and have a question of
8 Mr. Lisowski.

9 No?

10 I'll turn to the Board. While I'm doing --
11 oh, no. Wait. I'm sorry. We're holding off on the
12 Board.

13 So thank you, Mr. Lisowski and Mr. Hiser.

14 Let's go to Kinder Morgan.

15 Ms. Gutierrez?

16 MR. BRINDLEY: She's on mute.

17 MS. GUTIERREZ: Sorry about that. I'm on
18 mute. Too many devices here.

19 Thank you. We have Mr. Vincent Brindley.

20 Let me just get my -- if I could just briefly
21 share the screen.

22 HEARING OFFICER ORTH: Okay. Hold on.

23 MS. GUTIERREZ: And as we're doing that, I
24 just wanted to follow up on Chair Suina's question.

25 We did have a look into the data points, and,

1 Chair Suina, Kinder Morgan operates 22 transmission
2 compressor stations in New Mexico, and 13 of those would
3 be subject to the proposed rule. So it's a -- it's a
4 particularly important provision which is why we spent
5 some time discussing that with you today. Okay.

6 Okay. Do we see compressor seals?

7 MR. BRINDLEY: We do now.

8 MS. GUTIERREZ: Thank you.

9 VINCENT BRINDLEY

10 (Relating to Topic Order 25)

11 having been first duly sworn or affirmed, was
12 examined and testified as follows:

13 DIRECT EXAMINATION

14 BY MS. GUTIERREZ:

15 Q. Mr. Brindley, as your qualifications have
16 already been presented to the Board, can you please
17 introduce yourself for the record?

18 A. Sure. My name is Vincent Brindley, and I am a
19 technical supervisor for Kinder Morgan.

20 Q. Did you submit written direct technical
21 testimony at Exhibit 9 and written rebuttal technical
22 testimony at Exhibit 14 regarding compressor seals?

23 A. Yes, I did.

24 Q. Do you have any changes to that testimony?
25 And if not, do you adopt your written testimony here

1 today?

2 A. I have no changes, and yes, I adopt my written
3 testimony in full.

4 Q. Thank you.

5 And can you please briefly describe your
6 testimony regarding the proposed VOC standards for
7 compressor seals?

8 A. Yes, of course.

9 Good afternoon, Madam Chair, Board Members and
10 Madam Hearing Officer.

11 Originally I had planned to discuss the topics
12 as shown. However, in the effort to streamline these
13 proceedings, I'll limit my testimony to expressing that
14 Kinder Morgan supports the Department's September 16th
15 draft language. The Department has removed transmission
16 compressor stations from the applicability of
17 Section 114.

18 We support this change because it reflects
19 that the VOC emissions from wet compressor seals used in
20 the transmission segment are very low, and relative to
21 those minimal emission reductions the cost to control or
22 replace these seals would be unreasonably high.

23 With that, I offer myself for any questions
24 from the Board or other parties on the information in my
25 testimony.

1 MS. GUTIERREZ: Thank you, Mr. Brindley. And
2 I think just open to other parties at this time since
3 we're doing --

4 MR. BRINDLEY: Oh.

5 MS. GUTIERREZ: -- Board questions in full.
6 But thank you.

7 MR. BRINDLEY: Correct. Sorry.

8 HEARING OFFICER ORTH: All right. Thank you.

9 If you're a party with a question, please turn
10 on your camera.

11 All right. I don't see anyone.

12 I believe, though, that with Mr. Brindley we
13 have everyone who would be questioned collectively on
14 Section 114 completed.

15 So, Board Members, this is the first time
16 we're doing this, but we're going to do it six or seven
17 more times. We've heard the Department's testimony,
18 we've heard testimony from Kinder Morgan and from NMOGA.
19 All of those witnesses who testified on Section 114 are
20 now available for your questioning.

21

22

23

24

25

1 ELIZABETH BISBEY-KUEHN, BRIAN PALMER,
2 JUSTIN LISOWSKI and VINCENT BRINDLEY
3 (Relating to Topic Order 25)
4 having been first duly sworn or affirmed, was
5 examined and testified as follows:

6 EXAMINATION

7 BY THE BOARD:

8 HEARING OFFICER ORTH: Madam Chair, start with
9 you.

10 MS. KATZ: And really quickly, Madam Hearing
11 Officer, I would just ask that Ms. Kuehn and Mr. Palmer
12 turn their cameras on for questioning. Thank you.

13 HEARING OFFICER ORTH: Sure.

14 Oh, and by the way, if you're on the platform
15 as an attendee and you have a question, please reach out
16 through the chat.

17 Madam Chair?

18 CHAIR SUINA: I think, if I'm correct, all the
19 parties seem to be in alignment with the proposed rules
20 from the September 16th; is that correct?

21 MS. KATZ: That's correct.

22 CHAIR SUINA: Okay.

23 Well, I don't have any other questions at this
24 time. Thank you.

25 HEARING OFFICER ORTH: Thank you.

1 Vice-Chair Trujillo Davis?

2 VICE-CHAIR TRUJILLO DAVIS: I echo Member
3 Suina's question, and so I don't have any questions.

4 HEARING OFFICER ORTH: Thank you.

5 Member Cates?

6 MEMBER CATES: Same here, no additional.

7 HEARING OFFICER ORTH: Thank you.

8 Member Bitzer?

9 MEMBER BITZER: A couple of questions real
10 quick.

11 One, I did the math on -- on 36 months of
12 24-hour-a-day, 365-day-a-year running of a machine, and
13 it comes out to about the same number.

14 Is there some reason it was 36 months or
15 26,000 hours?

16 MR. PALMER: I can answer that. It --

17 MEMBER BITZER: And not just -- not just every
18 26,000 hours?

19 Please.

20 MR. PALMER: It's for -- to take account for
21 those compressors that don't operate full-time. I think
22 you heard from Kinder Morgan that some of their
23 compressors operate quite less than full-time. So you
24 could go 26,000 hours and not have to change them in
25 three years. You could stretch it out to five or six

1 years, I guess.

2 MEMBER BITZER: Okay.

3 And that -- and that's too long? If you're --
4 like an aircraft engine, you basically -- you got a
5 certain number of hours on the engine before you got to
6 tear it down and rebuild it, but if the aircraft is run
7 once a week or if it's run every day, it's still those
8 air hours that matter.

9 I guess it's different for this -- this type
10 of equipment, then?

11 MR. PALMER: You know, it's whichever one --
12 (Simultaneous discussion.)

13 MR. PALMER: It's whichever one is longer.

14 MEMBER BITZER: Okay.

15 The other question I had was what's the role
16 of a fuel cell in this process?

17 I mean, I understand a fuel cell could power a
18 Honda --

19 MR. PALMER: Yeah.

20 MEMBER BITZER: -- Clarity or the Apollo
21 spacecraft and so forth, burning hydrogen, but what is
22 a -- what is a fuel cell's role in this -- in this
23 process?

24 MR. PALMER: That's a placeholder if that
25 technology becomes available. So there was a menu of

1 options, and fuel cell was included as a placeholder if
2 it becomes available.

3 MEMBER BITZER: Interesting.

4 MR. PALMER: (Unintelligible and/or
5 inaudible.)

6 MEMBER BITZER: I tried -- before I got my
7 Honda Civic that runs on natural gas, I tried to get a
8 fuel cell-powered vehicle out of Honda. They run --
9 they run something out of LA where they'll lease it to
10 you, but they wouldn't -- they wouldn't turn -- turn me
11 loose with one, I think because they don't -- the
12 membranes don't behave well at freezing and below
13 temperatures, the membrane that requires the electron to
14 go around.

15 But anyway, those are the only questions I
16 have. Thank you.

17 HEARING OFFICER ORTH: Thank you.

18 Member Garcia?

19 MEMBER GARCIA: No questions. Thank you.

20 HEARING OFFICER ORTH: And Member Honker.

21 MEMBER HONKER: I do have a couple for
22 Ms. Kuehn, I think.

23 You said the 95 percent control
24 requirements -- I believe you said were from the NSPS;
25 is that correct?

1 MS. BISBEY-KUEHN: Yes, Member Honker. That's
2 correct.

3 MEMBER HONKER: How is that calculated?
4 95 percent of what?

5 MS. BISBEY-KUEHN: So the calculation to
6 determine control efficiency assumes 100 percent
7 emissions, and then you assume a certain capture
8 efficiency of those emissions and then a certain control
9 efficiency of the control device.

10 And so it's the combined capture and control
11 efficiency results in a 95 percent reduction of
12 emissions. And that is calculated by the efficiency of
13 that system to capture those emissions, and then the
14 efficiency of the system to control those emissions.

15 MEMBER HONKER: Okay. So it's basically
16 95 percent other than if it was just totally
17 uncontrolled and vented.

18 MS. BISBEY-KUEHN: That's correct.

19 MEMBER HONKER: Okay. All right. That's
20 helpful. Thank you.

21 No other questions.

22 HEARING OFFICER ORTH: All right. Thank you.

23 Let me ask if any of the questions prompted a
24 need for follow-up by any counsel.

25 No?

1 All right. Thank you very much, all you
2 Section 114 witnesses.

3 Mr. Hiser, yes?

4 MR. HISER: I do have one issue before we
5 completely depart from Section 114, and that is that we
6 just referenced the documents that were suggested by
7 Mr. Palmer and Ms. Katz as being the source of the 5,325
8 ton estimate. We don't see any such information in
9 those.

10 But rather than -- I'm sure they are probably
11 correct, but rather than take the Board's time, maybe we
12 can just touch base with them offline. But if there is
13 some issue with that, I guess I'd like to be able to
14 come back to it. I think they're probably right, but we
15 just didn't see it in the -- in the exhibit numbers they
16 referenced.

17 HEARING OFFICER ORTH: Okay. I see Ms. Katz
18 and Mr. Palmer nodding.

19 MR. HISER: Okay. Thank you.

20 MS. KATZ: Yes.

21 MR. HISER: And I'll reach out after the
22 hearing to Lara to figure out how to do that.

23 Thank you.

24 HEARING OFFICER ORTH: Thank you.

25 Are we moving, then, to Section 115?

1 MS. KATZ: Yes.

2 ELIZABETH BISBEY-KUEHN and BRIAN PALMER

3 (Relating to Topic Order 26)

4 having been first duly sworn or affirmed, were
5 examined and testified as follows:

6 DIRECT EXAMINATION

7 BY MS. KATZ:

8 MS. KATZ: So this is Topic Number 26 in the
9 spreadsheet, and this is Section 20.2.50.115, and then
10 there are several associated definitions and proposals
11 associated with this section.

12 So I will have -- I call Ms. Kuehn and
13 Mr. Palmer for the Department.

14 And Ms. Kuehn will need sharing privileges.

15 All right.

16 Sorry. So we've -- Ms. Kuehn and Mr. Palmer
17 have both already adopted their testimony on this
18 section, and I don't believe there are any changes to
19 that testimony. So we will move right into the rule --
20 to the discussion.

21 So, Ms. Kuehn, can you discuss the equipment
22 that -- and processes that are the subject of this
23 section?

24 MS. BISBEY-KUEHN: Yes. The -- this
25 subsection -- or this section rather, 115, covers

1 control devices and closed vent systems that are used to
2 comply with the requirements of this part.

3 A control device and closed vent system is a
4 means to capture, convert, destroy or recover air
5 contaminants. The purpose is to reduce emissions of
6 VOCs and NOx. Control devices include open flares,
7 enclosed combustion devices, thermal oxidizers, vapor
8 recovery units, fuel cells, condensers, and catalytic
9 converters, as well as other technologies that may be
10 approved by the Department.

11 A closed vent system is a system that is
12 designed to capture and route VOC emissions from a
13 source to a process stream or to a control device with
14 no loss of VOC emissions to the atmosphere.

15 MS. KATZ: And can you provide the overview of
16 this section of the rule requirements?

17 MS. BISBEY-KUEHN: Yes. This section
18 establishes operational and performance requirements and
19 standards, monitoring and other requirements for both
20 control devices and closed vent systems, and requires
21 control devices to be installed, operated and maintained
22 in accordance with the manufacturer specifications.

23 It requires that these control devices be
24 effective, and that means that they must be sized
25 adequately to handle the expected range of the emission

1 stream to which it is controlling. This section also
2 requires monthly inspections of control devices and
3 closed vent systems to ensure that the units are
4 operating properly, to check for leaks and defects and
5 releases.

6 This section also requires an assessment of
7 the device to ensure that it's properly sized for that
8 stream and that emissions are properly routed to the
9 control device or process. And it also requires that an
10 assessment be conducted by a qualified professional
11 engineer or an in-house engineer and that that
12 assessment be certified to the adequacy of -- of the
13 design.

14 MS. KATZ: I'll just let you move on to the
15 various controls discussions.

16 MS. BISBEY-KUEHN: Okay.

17 So this section breaks out specific
18 requirements for several types of control devices. Open
19 to flares are one such device where there are very
20 specific requirements established.

21 This -- the section requires that flares be
22 properly sized and designed to ensure proper combustion.
23 And that combustion must be maintained when gas is sent
24 to the flare and for the duration that gas is sent to
25 the flare. It prohibits gas being sent to the flare

1 that is in excess of the design capacity of the unit.

2 And it requires that all new and existing
3 flares be equipped with a system to ensure that the
4 flare is operated with a flame present at all times when
5 gas is being sent to the flare. It requires that those
6 units be inspected to ensure that a flame is present
7 upon initiating of a flaring event for certain types of
8 flares.

9 It requires that the flare be equipped with a
10 continuous pilot flame upon startup. And it requires
11 that for existing flares controlling a continuous gas
12 stream constructed before the date -- effective date of
13 the rule, that that unit be equipped with a continuous
14 pilot no later than one year after the effective date of
15 this part.

16 In addition, existing flares located at sites
17 with low production must be equipped with an
18 auto-ignitor, continuous pilot or alarm that alerts the
19 owner or operator of a flare malfunction, if that unit
20 is replaced or reconstructed after the effective date of
21 this part.

22 It requires that flares be operated with no
23 visible emissions. And it requires that flares be
24 repaired within three business days of alarm activation.

25 The next set of requirements refer to the

1 enclosed combustion devices and thermal oxidizers.
2 These types of equipment and control devices are
3 enclosed ground level combustors or oxidizers. Many --
4 there are many of the same requirements in this section
5 as there are for flares. There are very similar
6 monitoring, recordkeeping and reporting requirements for
7 this equipment.

8 And I'll go through those revisions when I get
9 to the red-line/strike-out version of the -- of the
10 regulation.

11 This section also contains very specific
12 requirements for vapor recovery units. These are
13 process equipment or control devices that route vapors
14 from a source back to a separator, a gas -- sales gas
15 line or to a process line for beneficial use, such as a
16 flare -- or such as fuel.

17 We will -- we'll speak to the distinction
18 between process VRUs and control VRUs later on. We
19 received comments about that -- that issue, and we
20 have -- I think we've clarified that the use of this VRU
21 as it's intended to be referred to in this rule. And so
22 we'll -- we can speak to that issue if we need to.

23 A vapor recovery unit is often referred to as
24 a compressor that is used to boost recovered vapors back
25 to the sales line. In a typical VRU application, the

1 hydrocarbon or VOC vapors are drawn out of a storage
2 vessel under low pressure and piped to a separator or
3 other scrubber to collect any condensed liquids which
4 are then recycled back to the storage vessel.

5 MS. KATZ: I'll turn over to Mr. Palmer to
6 discuss the basis for the requirements in the -- in this
7 section and the estimated emissions reductions and
8 costs.

9 So, Mr. Palmer?

10 MR. PALMER: So the basis for the requirements
11 in this section are -- come from these four documents,
12 the Pennsylvania General Permits GP-5 and GP-5A;
13 Colorado Regulation 7, that has a separate section for
14 control devices; the NSPS Subpart Quad 0a, which is the
15 2016 NSPS -- or 2015, I believe, NSPS for oil and gas
16 operations; and then also within the general provisions
17 of the NSPS program, Subpart A in the NSPS program.

18 So as far as emission reductions and cost
19 estimates specific to this section of the rule, we did
20 not estimate separate costs or emission reductions for
21 these control device requirements because those costs
22 and reductions are estimated separately for each
23 emission source using those controls and are estimated
24 for that particular section of the rule.

25 So there are no separate ones for this --

1 these general requirements.

2 MS. KATZ: Thank you, Mr. Palmer.

3 And turning back to Ms. Kuehn to discuss
4 the -- the definitions from Section 7 of this rule that
5 are associated with the control device section.

6 MS. BISBEY-KUEHN: Yes. So we have three
7 definitions that we want to discuss as part of this
8 larger discussion on Section 115.

9 The first definition is closed vent system,
10 which is defined as a system that is designed, operated
11 and maintained to route and -- the VOC emissions from a
12 source or a process to a process stream or control
13 device with no loss of VOC emissions to the atmosphere.

14 There was an issue that was raised by
15 commenters about the statement that there shall be no
16 loss of VOC emissions to the atmosphere. This language
17 is consistent with the federal New Source Performance
18 Standard Quad 0a, and so the Department intends to keep
19 this definition in line with that federal -- federal
20 definition.

21 The second definition is control device, which
22 I won't belabor here before you.

23 We did receive a request from stakeholders to
24 strike "air fuel ratio controllers" from this
25 definition. The Department agreed with that request, as

1 it did not intend to regulate air fuel ratio controllers
2 as control devices and didn't conduct any type of
3 technical or regulatory analysis on -- on that as if it
4 were a control device. So the Department agrees to that
5 deletion.

6 There was a requested addition of this
7 definition of vapor recovery control unit to distinguish
8 between vapor recovery units that are utilized in a
9 control application versus a process application.

10 The Department does acknowledge that it can be
11 used in both types of situations, however, does not
12 agree that this -- this additional definition is
13 necessary to distinguish between the two types of
14 applications. We have met with stakeholders and shared
15 our intent, and we think that the -- the revisions made
16 to the rule address that -- that comment satisfactorily
17 and that this additional definition is unwarranted and
18 not necessary.

19 And just for the Board's benefit, the
20 Department intends to regulate only those vapor recovery
21 units utilized to meet the emission standards under this
22 part within the -- within Section 115, and so process
23 VRUs are not regulated under -- under Section 115.

24 MS. KATZ: And, Ms. Kuehn, just to clarify,
25 the -- it was NMOGA that proposed this definition?

1 MS. BISBEY-KUEHN: Correct.

2 MS. KATZ: And the definition that's indicated
3 in green on the slide is NMOGA's proposed definition
4 that the Department has not accepted into the rule,
5 correct?

6 MS. BISBEY-KUEHN: That's correct.

7 MS. KATZ: Okay. Thank you.

8 So, Ms. Kuehn, if you want to go ahead and
9 summarize the -- the provisions of the rule itself and
10 the -- and more to the point to the revisions that were
11 made.

12 MS. BISBEY-KUEHN: Sure. Thank you.

13 So before you is the standard format or
14 framework that we have developed in each of the
15 sections.

16 We have 115 Paragraph A is the applicability
17 section. And then, in fact, the title of this section,
18 as well, we received requests to insert "and closed vent
19 systems" within both of those paragraphs, and we agreed
20 with those -- with those additions.

21 Within the general requirements, again which
22 is sub -- which is Paragraph B and Subparagraph B.(2),
23 we received a request to insert that language "the
24 reasonably expected range of inlet VOC or NOx
25 concentrations or volumes" in lieu of "fluctuations in

1 emissions of VOC or NOx." And the Department agreed that
2 that was a reasonable revision to the language and
3 didn't change the intent.

4 We struck the requirement to install an
5 equipment monitoring tag.

6 We received requests in Paragraph (3), which
7 is the requirement to inspect control devices monthly.
8 We received some requests for some minor revisions that
9 we felt were in line and appropriate to clarify this
10 requirement, and those -- those revisions are before
11 you. Again they didn't change the intent. They -- they
12 strengthen and clarify this -- this section. And so the
13 Department agreed with those, as well.

14 Paragraph (4) contains a revision that we
15 think also clarifies that not all emissions can be
16 prevented during the capture and routing of VOC
17 emissions and that the -- the clarification to minimize
18 venting of unburnt gas to the atmosphere was
19 appropriate.

20 And there were other minor clerical kind of
21 editorial changes that were made, that didn't change the
22 intent of the -- the language.

23 So continuing on, this is the requirement to
24 have the closed vent system reviewed and certified by a
25 qualified professional engineer. We received requests

1 to clarify that it's the assessment that will be
2 certified by the qualified professional or in-house
3 engineer, and the Department agreed that that was an
4 appropriate change.

5 We also received requests to strike "design
6 and capacity." We also agreed that that was not -- not
7 necessary in order for the -- for the in-house or
8 professional engineer to conduct the assessment of the
9 system and to sign off on -- on that assessment.

10 There's several changes to Paragraph (6). The
11 Department agreed with those changes, as well. This
12 information has been kind of repackaged that -- so the
13 information that was previously in Subparagraphs (a)
14 through (e) have been repackaged into a single line in
15 Paragraph (a). And so we have just kind of listed those
16 requirements out instead of -- listed them out in a
17 single -- single requirement instead of flushing them
18 out in individual -- individual requirements and -- and
19 agreed that those were appropriate.

20 We made one minor edit here to clarify that
21 the flare shall be properly sized and designed to ensure
22 proper combustion, and we think that was a valid edit to
23 make.

24 The rest of the requirements are items that
25 I've already spoken to so I won't go through those

1 again. These establish the basic operational
2 requirements to maintain and operate the flare.

3 MS. KATZ: And just to clarify for the Board,
4 that this particular section contains several paragraphs
5 dealing with the particular control devices so this --
6 and this is the one for the flares, correct?

7 MS. BISBEY-KUEHN: That's correct. Thank you.
8 That's a good point.

9 So this is -- we are departing now from our
10 typical framework that we -- that you have seen in other
11 sections, and we have different paragraph letters for
12 flares and closed combustion devices on vapor recovery
13 units, which you'll see.

14 So there are different types of requirements
15 depending on the type of flare, which I spoke to
16 previously, and there's also different types of
17 requirements if that flare was located on a small
18 production site, and these edits were made to align with
19 the OCD's regulations, so that there's some alignment
20 there between those two requirements and no -- no due --
21 no duplication or contradiction between those -- those
22 requirements.

23 We received an -- so I won't -- I'm not going
24 to go through and read all of these in detail, but if
25 anyone has any specific questions, I'm available to --

1 to ask -- or to answer questions.

2 Paragraph D before you, an edit was made to
3 clarify that observations of the visible emissions may
4 be terminated if the evidence of a visible emission was
5 observed and recorded and action is taken to address the
6 visible emissions. And the Department finds that
7 reasonable. If an owner or operator is -- is addressing
8 a visible emission, there's no need to continue to
9 conduct a 15-consecutive-minute visible emission
10 observation in order to demonstrate that there were
11 emissions observed.

12 We also clarified that flares shall be
13 repaired within three business days of a thermocouple or
14 other alarm activation.

15 And the final language at the bottom of (2)(c)
16 here formalizes the edit that was made above in
17 Paragraph D. So again that monitoring of the visible
18 emissions doesn't have to be continued if the owner or
19 operator takes an issue to -- and observes and records
20 and action is taken to address the visible emission.

21 So these are the -- continuing on with the
22 monitoring requirements of the flare, the EMT tag
23 requirement was deleted and replaced with a date and
24 time stamp of the monitoring event.

25 And then Subparagraph (3) are the

1 recordkeeping requirements for the flare. Again we made
2 minor editorial changes here that were discussed
3 previously. So this is aligning with the other language
4 of the requirement. And this -- this additional changes
5 that -- there's -- there's not substantive edits made
6 here in any part of this -- this section.

7 So we're now to the requirements for enclosed
8 combustion devices and thermal oxidizers, which are
9 essentially identical to the open flare requirements.
10 And so many of the edits made here are similar to the
11 ones that were made for the flare section. So the
12 language that it be properly sized and designed to
13 ensure proper combustion efficiency is -- is identical
14 to the change made to the flare section.

15 We've added clarifications when those units
16 have to be equipped with a continuous pilot or an
17 auto-ignitor. So new units need to have that kind of
18 technology upon startup, and existing units have two
19 years to comply with that requirement.

20 And again in Paragraph D language was added so
21 that a visible emission observation can be concluded if
22 an owner or operator records and takes action to address
23 the visible emissions.

24 This slide is -- contains the monitoring
25 requirements for the ECD and thermal oxidizer. Again

1 that added language in (b) is formalizing that
2 requirement that I just spoke to. There were other very
3 minor editorial changes made here that didn't change the
4 intent of the -- of the language and was acceptable to
5 the Department.

6 Subparagraph E -- or Paragraph E are the --
7 outline the requirements for vapor recovery units.
8 Paragraph (1)(a) and (b) speak to the emission standards
9 or the operational standards for these units.

10 The insertion of this language in (1)(b) was
11 important in that there are air permits that are -- that
12 have been issued that don't require redundant VRUs to be
13 brought on site during VRU downtime. And so this aligns
14 with those existing air permits. And -- and the
15 Department found that was reasonable. It only applies
16 to existing air permits that were in effect prior to the
17 effective date of this part. So there is a sunset
18 clause on that provision.

19 And also, we've added in an option that
20 alternatively -- and this was based on a request from --
21 from stakeholders that the owner or operator may shut
22 down the unit being controlled by the VRU. And then
23 also for sites that already have a VRU installed as of
24 the effective date of this part, it gives a longer
25 compliance timeline to install backup control devices,

1 and that timeline has been extended to three years,
2 which the Department also finds reasonable.

3 So these are the monitoring requirements of
4 the vapor recovery unit section. There's not -- there
5 have been not many substantive edits here made at all.
6 These are clarifying edits that don't change the intent
7 for purpose of the requirement. They formalize
8 revisions that have been made in previous subsections.
9 And so there's not -- not new -- no new -- no new
10 requirements.

11 That -- that was the end of the -- that ended
12 very quickly.

13 MS. KATZ: Madam Hearing Officer, that
14 concludes the Department's presentation on the control
15 devices section.

16 HEARING OFFICER ORTH: Thank you very much,
17 Ms. Katz and Ms. Kuehn.

18 If you are a party with a question of
19 Ms. Kuehn, please turn on your camera.

20 I see Mr. Hiser.

21 MR. HISER: Thank you, Madam Hearing Officer.

22 CROSS-EXAMINATION

23 BY MR. HISER:

24 MR. HISER: Thank you, Ms. Kuehn, for your
25 testimony on the control devices provision.

1 I have a few questions, and I don't know if it
2 would be easiest to maybe have you bring slides up so
3 that we can talk about at least the first two, and those
4 are on that definitions slide.

5 MS. BISBEY-KUEHN: Sure.

6 MR. HISER: Perfect.

7 So my first question is in the definition F
8 for closed vent system, and I know that you testified
9 that there should be no loss of VOC emissions to the
10 atmosphere.

11 I was wondering if you could explain how an
12 operator is supposed to do maintenance work on a closed
13 vent system without having a loss of VOC emissions and
14 you have to open the system in order to work on it.

15 MS. BISBEY-KUEHN: Yes. And so we -- we've
16 aligned this definition with the federal definition,
17 which also states no loss of VOC emissions to the
18 atmosphere. And so I think we can be in agreement that
19 during maintenance there's going to be some maintenance
20 emissions associated with the venting, but that it shall
21 be -- when it's operational. During normal operations
22 the expectation is that there shall be no loss of VOC
23 emissions to the atmosphere.

24 MR. HISER: I believe industry would be very
25 supportive of no loss during operation. Our concern has

1 been really more the maintenance and the unavoidable
2 issues if you have to open. So I appreciate that
3 clarification.

4 And then in Subpart TT you talked about the
5 vapor recovery control unit.

6 And I just wanted to confirm that the
7 Department by including vapor recovery units in the
8 definition of control device was not trying to adopt a
9 global determination that all VRUs are now control
10 devices; is that correct?

11 MS. BISBEY-KUEHN: Correct.

12 MR. HISER: And so where there's already been
13 work done between you and an operator as to whether a
14 specific VRU is a process or a control device, that
15 prior determination would still remain in effect for
16 the --

17 MS. BISBEY-KUEHN: (Nods head.)

18 MR. HISER: Okay. Thank you. That's very
19 useful, as well.

20 A couple of other things, then, and these --
21 slide through the slides, but perhaps maybe we can go to
22 Section C.

23 One of the questions that we had, if you look
24 at C.(1)(b), and then there's four little Roman
25 numerals, I guess we call them romanettes, underneath

1 it. In romanette (iii), maybe it's (iv), some of these
2 have effective dates, and some of them don't.

3 Could you walk through the effective dates
4 that the Department is looking for? Because there seems
5 to be variations between continuous and noncontinuous
6 flares, and so we weren't sure what your thoughts were
7 for the noncontinuous flares.

8 MS. BISBEY-KUEHN: Yes. So the (b) -- so
9 Paragraph C.(1)(b)(i) states that a flare with a
10 continuous pilot flame or an auto-ignitor shall be
11 equipped with a system to ensure the flare is operated
12 with a flame present at all times when gas is being sent
13 to the flare.

14 And so is your question --

15 MR. HISER: So yeah. It's is that immediately
16 upon the effective date, or did you intend that there be
17 a period of time to make that occur?

18 MS. BISBEY-KUEHN: There should be a -- yes.
19 We can certainly work with clarifying compliance
20 deadlines for that.

21 MR. HISER: But in general, your thinking was
22 a year for most of these flare provisions on existing --

23 MS. BISBEY-KUEHN: It was a year for most of
24 the existing flare requirements.

25 MR. HISER: That's what we understood, but it

1 was a little bit hard with (b) to quite follow it
2 through all the way.

3 Another question that had come up is there's a
4 requirement -- I believe it's here in the open flare --
5 that says that we have to have a flame present at all
6 times when gas is being sent to the flare.

7 And because we're industry and because we're
8 hypercautious, we just wanted to be certain that there
9 was no disagreement that if there is a little bit of gas
10 prior to the first spark from the auto-ignitor, that
11 that was not what you were contemplating as a violation
12 of C.(1)(b)(i).

13 MS. BISBEY-KUEHN: No. That's not what we
14 intended.

15 MR. HISER: Yeah.

16 Then in C.(1), I think it's (e), if we can go
17 down just a couple pages, it talks about here the owner
18 or operator shall repair the flare within three business
19 days of any thermocouple or other flame detection device
20 alarm activation.

21 Can you explain a little bit what the
22 Department's expectations are if we believe it's a false
23 alarm or a failure of that monitoring system?

24 MS. BISBEY-KUEHN: I'm sorry. So your
25 question is how would we handle that situation --

1 (Simultaneous discussion.)

2 MS. BISBEY-KUEHN: -- if there was a -- if it
3 was an issue with the alarm itself and not the flare?

4 MR. HISER: Correct.

5 MS. BISBEY-KUEHN: Okay. So I think that
6 needs to be documented, of course, that there was an
7 attempt made to repair the flare and there was
8 indications that the flame activation itself -- the
9 alarm activation itself --

10 MR. HISER: So you --

11 (Simultaneous discussion.)

12 MS. BISBEY-KUEHN: -- functioning.

13 MR. HISER: -- that it -- basically that it
14 was a false alarm and the flare appears to be operating
15 appropriately?

16 MS. BISBEY-KUEHN: Correct.

17 MR. HISER: Okay. Thank you very much.

18 Let me check my notes here.

19 And then in a couple of places, you refer to
20 an expected range and properly sized, as it relates, I
21 think, to flares and enclosed combustion devices and
22 thermal oxidizers.

23 And by that are you expecting the designer to
24 use professional -- you know, appropriate professional
25 engineering judgment to determine what that appropriate

1 sizing is, as opposed to, say, instantaneously
2 everything that could potentially possibly go into the
3 system dumping at that same instant second?

4 MS. BISBEY-KUEHN: The reasonably expected
5 range is -- should be -- well, the unit needs to be
6 sized for the -- for the emission sources that is
7 intended to control. And I think that that would be
8 kind of an unusual event, to have everything dumping at
9 the same time.

10 I guess I would need more kind of -- more
11 information about what that -- what that event was. If
12 that was the normal mode of operation, then the unit
13 should be sized for handling all of those streams
14 consecutive or simultaneously.

15 MR. HISER: So I think the issue arises -- and
16 that's a really good question back on your part,
17 because, obviously, it's different if you have one unit,
18 one control device, but as I think we've heard
19 testimony, sometimes there will be many units that go to
20 a single control device, and so there may be quite a
21 number of potential inflows.

22 And so in that latter situation, that's really
23 where we're starting to look more at the use of
24 engineering judgment to balance the fact that there are
25 multiple flows that may or may not be going on at any

1 one time going to that control device.

2 MS. BISBEY-KUEHN: Yes. I'm not sure if
3 that -- if you have a follow-up question for me.

4 MR. HISER: So that -- would that be the type
5 of situation where you would expect the design engineer
6 to exercise that judgment on what is reasonably
7 anticipated or reasonably expected range of in -- of
8 inflows?

9 MS. BISBEY-KUEHN: Yes. And I would qualify
10 that if -- yeah. If it's -- if it's expected that all
11 of those emissions occur simultaneously, then the unit
12 should be sized to handle that flow.

13 MR. HISER: Okay.

14 Thank you. That's all my questions.

15 HEARING OFFICER ORTH: Thank you.

16 Are there any other parties with questions of
17 Ms. Kuehn or Ms. Palmer?

18 Let's see. Not seeing other parties turning
19 on their camera.

20 As I read across the spreadsheet, I see that
21 Oxy had proposed a witness, witness Holderman.

22 Is that still true?

23 Mr. Janoe?

24 MR. JANOE: Yes. Yes, Madam Hearing Officer,
25 it is.

1 HEARING OFFICER ORTH: Okay.

2 So shall we take Mr. Holderman next?

3 MR. JANOE: We are ready if the -- if the
4 Hearing Officer is.

5 HEARING OFFICER ORTH: Absolutely.

6 Mr. Holderman, if you would turn on your
7 camera, please.

8 MR. JANOE: We'll be swapping out again, Madam
9 Hearing Officer. I thought I'd give a quick, little
10 intro on what Mr. Holderman will be talking about, and
11 we will -- we will swap out. I -- forgive us if -- we
12 still haven't found a better solution even over the
13 weekend as we were looking on the IT side. So I hope
14 you will indulge us yet again.

15 HEARING OFFICER ORTH: No. That's great. Two
16 for one on a screen. That's great.

17 All right. Mr. Holderman is still under oath.

18 MR. JANOE: Yes.

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DANNY HOLDERMAN

(Relating to Topic Order 26)

having been first duly sworn or affirmed, was
examined and testified as follows:

DIRECT EXAMINATION

BY MR. JANOE:

MR. JANOE: So Mr. Holderman will be speaking
to one very specific issue that has not otherwise been
resolved in the September 16th changes that were made by
the agency. Specifically it relates to
Section 115E.(1)(b) and the implementation schedule for
redundant backup control devices and vapor recovery
units.

The revisions that were made by the agency
extended that time period from no specified time period
to a period of three years, and Mr. Holderman will be
testifying about why five years would make sense in that
context.

So I will turn this over to Mr. Holderman.

Q. So, Mr. Holderman, if you would explain to the
Hearing Officer and the Board why it is that five years
as opposed to three years would make sense.

A. Sure. Get down to -- to the business.

When we -- when we looked at this, and as it's
been acknowledged by the parties on all sides of the

1 proceedings, the various Board Members, pretty much
2 everybody that we've heard, retrofits that -- that will
3 be required based on the size of the number of wells,
4 et cetera, in New Mexico will be substantial.

5 Our concern is that steel shortages, component
6 shortages, lack of skilled manufacturing labor, limited
7 manufacturing capacity, lack of skilled installers, and
8 other supply chain issues, as well as the growing demand
9 for similar equipment in other states will all limit the
10 ability of operators to timely meet the retrofit
11 installation requirement of the rules.

12 It could take years for manufacturing
13 capabilities and the labor force to scale up to
14 necessary levels. And even if manufacturing
15 capabilities are ramped up, they still need the skilled
16 personnel to install and maintain the equipment. When
17 all operators statewide begin taking similar steps to
18 come into compliance with these rules, all of these
19 issues will come to bear.

20 At this point there is simply not enough
21 manufacturers, technicians or laborers to meet this
22 demand in the proposed (unintelligible and/or
23 inaudible).

24 To put in better context with VRUs
25 specifically, control device manufacturers have

1 estimated during recent discussions that the marker as a
2 whole can produce up to 500 VRUs in a year, which is not
3 enough to meet the substantial demand increase -- or --
4 excuse me -- the substantial increase in demand
5 triggered by the rule.

6 This is why Oxy believes it's critical to
7 provide additional phase-in time that accounts for the
8 realities of these resource restrictions. Without
9 meaningful additional relief on these deadlines, Oxy and
10 other operators run the risk of becoming out of
11 compliance for reasons that are completely out
12 (unintelligible and/or inaudible).

13 Q. Mr. Holderman, you had mentioned about sort of
14 the capacity in the market.

15 Just to give the Board a little bit of an idea
16 of what that means, how many again -- how many VRUs can
17 be manufactured in a year again, sir?

18 A. 500-and-something.

19 Q. And Oxy would need approximately how many to
20 meet the requirement -- the requirements of this rule?

21 A. We've estimated so far that we would need
22 between 150 and 200 VRUs for the 2,700 wells that we
23 operate in the state, just to come into compliance.
24 That's not including the additional VRUs we will need
25 for our normal (unintelligible and/or inaudible).

1 Q. And, Mr. Holderman, approximately what
2 percentage of wells in New Mexico are Oxy wells?

3 A. My best estimate of that one has just been by
4 the information here. So I think that we've heard that
5 we have somewhere between 54,000 and 55,000 wells. As I
6 said, Oxy had -- the actual number is 2,745 that we
7 operate. So we operate roughly 5 percent
8 (unintelligible and/or inaudible).

9 MR. JANOE: No further questions on direct for
10 Mr. Holderman. We present him for cross.

11 HEARING OFFICER ORTH: Thank you very much,
12 Mr. Janoe and Mr. Holderman.

13 If you're a party with a question, please turn
14 on your screen.

15 Ms. Katz.

16 MS. KATZ: Thank you, Madam Hearing Officer.
17 I just have a quick question.

18 CROSS-EXAMINATION

19 BY MS. KATZ:

20 Q. Mr. Holderman, the numbers that you're talking
21 about about how many VRUs can be manufactured, do you --
22 do you submit any evidence of that -- for that number or
23 any data for the basis of that?

24 A. The -- that came from conversations with our
25 suppliers, and it's submitted in my direct testimony.

1 Q. As -- there's exhibits in -- to the testimony?

2 A. Yes.

3 MS. KATZ: Okay. Thank you.

4 HEARING OFFICER ORTH: Okay. Thank you.

5 Any other party with a question, turn on your
6 camera.

7 I'm not seeing anyone.

8 Thank you very much, Mr. Holderman.

9 The questions from the Board will come up in
10 just a little bit.

11 Does GCA still intend to present witness
12 Filby?

13 MS. SHEEHAN: Madam Hearing Officer,
14 Mr. Filby's direct written prefiled testimony, which is
15 GCA Exhibit 23, addressed the GCA's proposed amendment
16 to the Department's proposed control device inspection
17 schedule, as set forth in the Department's May 6, 2021,
18 proposed rule at Sections 115B.(4) and 113B.(2).

19 The GCA was particularly concerned with the
20 requirements of the proposed rule as they relate to
21 catalytic converters, an important emissions control
22 device for compressor engines, and that the monthly
23 inspection requirement could be interpreted to require
24 unnecessary and potentially counterproductive physical
25 inspections of catalytic converters.

1 I am happy to report that since that time NMED
2 has addressed the GCA's concern with Sections 115 and
3 113 in NMED Rebuttal Exhibit 23.

4 Given the cooperation and in an effort to
5 streamline this proceeding, if parties or Board Members
6 have questions for Mr. Filby, he is actually unavailable
7 this afternoon, but he is available to appear Thursday
8 or Friday. Otherwise, the GCA is satisfied with the
9 admission of Mr. Filby's resume and testimony, which
10 have been marked GCA Exhibits 23 and 24 respectively,
11 into the record and as support for Sections 115B.(4) and
12 113B.(2) as set forth in NMED Rebuttal Exhibit 23.

13 HEARING OFFICER ORTH: Thank you very much,
14 Ms. Sheehan.

15 Let's see. Does NMOGA intend to put on
16 witness Meyer?

17 MR. HISER: Yes, Madam Hearing Officer, we do.

18 HEARING OFFICER ORTH: All right. Thank you.

19 Mr. Hiser, go ahead.

20 MR. HISER: So as -- it's Adam Meyer, should
21 hopefully be a panelist.

22 And he will need presentation rights at the
23 appropriate time.

24 HEARING OFFICER ORTH: Terrific.

25 MR. MEYER: Yes. I'm here.

1 Can you hear me?

2 HEARING OFFICER ORTH: Yes.

3 MR. HISER: Madam Hearing Officer, he has not
4 yet been sworn. So you might like to do that.

5 HEARING OFFICER ORTH: That's right.

6 Would you spell your name, please, Mr. Meyer.

7 MR. MEYER: Adam Meyer, A-D-A-M, last name is
8 Meyer, M-E-Y-E-R.

9 HEARING OFFICER ORTH: Thank you.

10 Would you raise your right hand.

11 Do you swear or affirm to tell the truth?

12 MR. MEYER: I do.

13 HEARING OFFICER ORTH: Thank you.

14 ADAM MEYER

15 (Relating to Topic Order 26)

16 having been first duly sworn or affirmed, was
17 examined and testified as follows:

18 DIRECT EXAMINATION

19 BY MR. HISER:

20 Q. Adam, you should be able to share your screen.

21 A. Okay. Thank you.

22 Let's try this out.

23 Can everyone see that?

24 Q. We can see it.

25 Can you make it bigger?

1 A. Let's do presentation mode.

2 How's that?

3 Q. That's very good. Thank you.

4 Mr. Meyer, could you state what your
5 involvement is in this proceeding?

6 A. Yes. My involvement in this proceeding was to
7 coordinate the Valor EPC team, as well to provide
8 technical testimony on various portions of the rule,
9 including storage tanks, control devices and pneumatics,
10 to name a few.

11 Q. Is NMOGA Exhibit Number 30, which was
12 previously admitted, an accurate copy of your resume?

13 A. Yes.

14 Q. Could you please state your qualifications as
15 they relate to your participation in this hearing?

16 A. Yes. So I hold a bachelor's of mechanical
17 engineering from Penn State University and a master's
18 from the University of Florida in thermal fluids
19 transport.

20 I have been designing facilities, piping
21 facilities, for almost 20 years, various different
22 industries. I started with electric boat building on
23 submarines, so doing a lot of piping systems, propulsion
24 systems for that capacity.

25 I worked at Kennedy Space Center, Florida,

1 where I was a thermal fluids engineer and cryogenics
2 specialist and all other gas type of facilities, did
3 that for eight years. I worked in gas turbines, balance
4 of plant systems for -- at -- for Siemens-Westinghouse.

5 And in the past eight years, I have been in
6 oil and gas, doing upstream and midstream production
7 facilities and midstream facilities. I would say in the
8 past seven years has been -- the focus -- my focus has
9 been facility design for emissions reduction and
10 compliance. And that actually extends to a lot of
11 different disciplines.

12 More specifically, I'm probably more well
13 known for my work in storage tanks and vapor control
14 systems. Myself and my team have evaluated over 2,000
15 tank batteries in that time, and many of the terms that
16 we are using today were coined by myself and my team.

17 Q. Thank you.

18 Do NMOGA Exhibits A2 and 42, which were
19 previously admitted, reflect your direct and rebuttal
20 testimony filed in this matter?

21 A. Yes, they do.

22 MR. HISER: And for the Board, that means
23 you'll -- A2 and 42 will be where you'll find
24 Mr. Meyer's direct testimony.

25 Q. And do you adopt that testimony as your

1 testimony here today?

2 A. Yes, I do.

3 Q. And then did you rely on various facts and
4 figures in NMOGA Exhibits 10 through 21 as you were
5 preparing your testimony?

6 A. Yes.

7 Q. Have you provided a summary of your direct and
8 rebuttal testimony?

9 A. Yes. I have provided a summary of my rebuttal
10 today. That relates to control devices.

11 Q. All right. Well, let's then go through that
12 summary for the Board, please.

13 A. Okay. In the context of the control devices
14 discussion, like I said, I have -- was part of many
15 portions of this rulemaking. So I'll keep it just to
16 the control devices for now.

17 Part of my rebuttal testimony was to provide a
18 little bit of clarification for some of the red-line
19 justifications as it pertains to capture of 95 percent,
20 you know -- you know, design efficiency for 98 percent
21 of combustors. And what I'd like to do is just -- as
22 part of the rebuttal was to go through what we on the
23 engineering on the ground floor -- how we -- how we
24 evaluate and how we size these control devices.

25 So in this first PowerPoint, what we do when

1 we are evaluating a facility and sizing a control device
2 is -- is we start with a process simulation of --
3 usually of the entire facility, and through that we're
4 performing a sensitivity study, you know, regarding what
5 flow range we need to operate, pressure and temperature
6 range, and the kicker, which is our composition of the
7 gas that we are trying to combust or flare.

8 What I will -- part of this process is
9 designing for normal operations or for CO processes and
10 evaluating the turndown of those devices that we want.
11 So usually you'll do this process simulation and you
12 will create a spec -- a spec sheet that we provide to a
13 combustor flare or VRU manufacturer that says here's our
14 what we think the composition is going to be and here is
15 the process and pressure and temperature ranges it needs
16 to operate in.

17 So the key here is that going through all that
18 we have a design condition. Right? And I want to talk
19 about how design is different than operations, because
20 our design is the full intention to capture all vapors,
21 off of tanks or other processes, and to combust them
22 efficiently based on what we know of the -- of the
23 composition.

24 Q. And then before you go to that slide --

25 A. Sure.

1 Q. -- you had a reference to something called
2 turndown, and I think that may not be a term that's
3 familiar to the Members of the Board.

4 If you could spend a moment talking about what
5 turndown is and why it's an issue.

6 A. Okay. Very good point.

7 So turndown is a piece of equipment's ability
8 to properly operate to an entire range that is being
9 demanded to operate in. So I think a lot of people are
10 familiar with the term "PPIVFR," Peak Potential
11 Instantaneous Vapor Flow Rate. And there's a new one
12 which is the Potential Minimum Instantaneous Vapor Flow
13 Rate.

14 Those two terms, which may or may not be
15 brought up in various consent decrees or negotiations,
16 is an attempt to describe turn down. If I design a
17 facility to process -- or flare to process 100 Mcfd,
18 million standard cubic feet per day, how efficient is it
19 at 1 million standard cubic feet per day. So that
20 turndown ratio is something that's very critical when
21 we're designing a system.

22 Q. And so basically what you want to do is design
23 a control device that will operate at the optimal
24 efficiency for the majority of time that it's operating,
25 as opposed to the very long tails of how that device may

1 be called upon to operate?

2 A. Exactly. What's more of a problem is that the
3 demand of the range is becoming greater with a lot of
4 rule -- a lot of rules that are coming out. Designing
5 for a worst case event, as we call it the hundred-year
6 flood event, where everything flows through the
7 combustor at once, you know, that means the combustor
8 meets a huge demand, but normal operations is a fraction
9 of that.

10 So what you see is turndown issues in the
11 field, where we've oversized the equipment based on
12 precedent set, and during normal operations the amount
13 of gas is not nearly that much. And so there's a
14 potential turndown issue.

15 Q. Okay. Why don't you move on.

16 A. Okay.

17 So, you know, again we're -- we're talking
18 about design versus operations. In operations there is
19 potential for unanticipated scenarios, flows, pressures,
20 temperatures. Even, you know, ambient conditions will
21 affect -- you know, will vary and beyond what we've, you
22 know, designed for. So -- and then on top of that,
23 there are potential for fluctuating compositions.

24 So we design as best we can these control
25 devices or, you know, spec them out, I should say. But

1 ultimately during operations there are some -- a lot of
2 unknowns.

3 This especially becomes a problem with
4 temporary flares, temporary equipment, where there is a
5 massive hurry-up to bring something out onto the site to
6 control emissions to the best of our ability, but we
7 don't have all these answers, like gas sample -- gas
8 composition. We don't have time to go through that CVS,
9 closed vent system, analysis or get it even certified.
10 Right? As would be required if it were classified as a
11 control device in the context of this rule.

12 So a lot of these temporary equipment, we
13 are -- it's a -- it's a minimizing to your best effort.
14 I think Colorado coined the term "maximum extent
15 practicable." There -- that is a -- what we're trying
16 to do is do our best to get the emissions under control
17 for these temporary -- temporary equipment.

18 And so part of that is we need to -- my
19 opinion is having a carveout, not only to differentiate
20 between design requirements and operational
21 requirements, but have a carveout specifically for
22 temporary emission control equipment.

23 Q. And so if I can back up for just a second
24 there to provide perhaps a scenario.

25 So when you're talking about temporary

1 emission control, would that be a situation where, say,
2 a facility has a permanent flare, and for some reason
3 that permanent flare malfunctions, and we're trying to
4 input in its place a temporary flare to control the
5 facility while they're working on the permanent flare?
6 Is that what you're concerned about?

7 A. Correct. That's a situation, and that
8 concerns me.

9 Q. Why don't you go on to your next slide.

10 A. Okay. Kind of along the same lines of, you
11 know -- I'm providing these pictures to show an example
12 of the difference between no emissions and minimal
13 emissions as it -- as it pertains to the definition of
14 closed vent system.

15 There are some situations that we just
16 cannot -- cannot prevent. So here's an example. The
17 picture to the left is a pinhole leak created by a
18 manufacturing defect in the casting. That was -- and it
19 was so small that no one could be able to see that when
20 they were putting this in operation.

21 You know, the picture to the right is an
22 example of a thief hatch, and this may be in the weeds,
23 but you'll notice that the one -- the thief hatch on the
24 left does not have a groove and the one on the right
25 does. That is to illustrate that in that instance the

1 vacuum pallet on the thief hatch was shipped incorrectly
2 assembled, and it was put in without a thought and --
3 but that created a higher potential for -- of emissions
4 from the thief hatch.

5 And the last one I'd like to show is
6 100 percent capture is pretty impossible, and here's
7 just an example of a, you know, truck line connection
8 and disconnection. There will be trace amounts of VOCs
9 that get emitted during that time. We can design, you
10 know, as best we can to minimize emissions, but there
11 will always be a little bit.

12 And so we want to tailor the rules to -- as a
13 best effort to say we want to minimize emissions to the
14 maximum extent we can.

15 That concludes this section.

16 Q. So if you were to be making a recommendation
17 to the Board and to the Department, would one of those
18 things be that, for example, where there is the very
19 detailed CVS assessment requirement, that that may not
20 be appropriate for this temporary equipment where you're
21 bringing it in, for example, where the main flare went
22 down and you're trying to put a temporary flare in, in
23 that situation?

24 A. Yes. I think the rules need to have a
25 carveout specifically for those situations.

1 MR. HISER: Okay. Thank you.

2 That's all my questions.

3 HEARING OFFICER ORTH: Thank you, Mr. Meyer
4 and Mr. Hiser.

5 If you would stop sharing your screen briefly.

6 MR. MEYER: Okay.

7 HEARING OFFICER ORTH: Are there any parties
8 who have a question of Mr. Meyer? Please turn on your
9 camera.

10 All right. Let's see.

11 MS. KATZ: Madam Hearing Officer.

12 HEARING OFFICER ORTH: Ms. Katz.

13 MS. KATZ: I was going to maybe -- was going
14 to make the point with Ms. Kuehn, but I think I'll just
15 do it with Mr. Meyer for the interest of time because
16 it's easier.

17 CROSS-EXAMINATION

18 BY MS. KATZ:

19 Q. Mr. Meyer, have -- do you know if NMOGA has
20 proposed any language to address your concerns regarding
21 use of temporary control devices in cases of
22 malfunctions or emergencies like you have testified
23 about?

24 A. If I recall, there was an attempt to exclude
25 temporary. I think maybe more work needed to be done to

1 define it, and maybe that's where we haven't quite
2 aligned on it yet. To my knowledge, that's where we
3 left it.

4 Q. Okay.

5 And the Department would be amenable to
6 considering that language and to working -- to working
7 on that to where we can get to an acceptable place for
8 both of us.

9 A. Okay. Great. That would be great. I'd be
10 happy to help.

11 HEARING OFFICER ORTH: Okay. Thank you.

12 As --

13 MS. KATZ: That's all I have at this time.

14 HEARING OFFICER ORTH: All right. Thank you.

15 As I understand it, Mr. Rose indicated that
16 Mr. Brown would not be presenting on Topic 26. We've
17 already heard from Mr. Holderman.

18 And I understood an earlier e-mail from
19 Ms. Paranhos to mean that Mr. Alexander would be
20 testifying on Section 117 and not 115, but let me see if
21 I can get confirmation.

22 Ms. Paranhos?

23 MR. GONZALES: Madam Hearing Officer, this is
24 Rico Gonzales on behalf of IPANM.

25 Yeah. We request that our witnesses be here

1 tomorrow.

2 HEARING OFFICER ORTH: Oh, okay. All right.

3 So you do -- you will be presenting Mr. Brown
4 on Section 115?

5 MR. GONZALES: Not today.

6 HEARING OFFICER ORTH: Okay. Thank you.

7 MR. GONZALES: Thank you.

8 HEARING OFFICER ORTH: We may not have
9 Ms. Paranhos. But I -- I understood her e-mail to mean
10 that Mr. Alexander would not be presenting on subject
11 1 -- Section 115, but rather Section 117.

12 All right. So I think at this point we will
13 ask all of the witnesses who have testified on
14 Section 115 to engage their camera so that we can turn
15 to the Board for their questions.

16 While we're doing that, if you're an attendee
17 on this platform and you would have a question, please
18 reach out through the chat.

19 So I see Ms. Kuehn and Mr. Palmer and
20 Mr. Janoe's witness. Let's see, who else. And
21 Mr. Meyer. All right.

22

23

24

25

1 ELIZABETH BISBEY-KUEHN, BRIAN PALMER,
2 DANNY HOLDERMAN and ADAM MEYER
3 (Relating to Topic Order 26)
4 having been first duly sworn or affirmed, were
5 examined and testified as follows:

6 EXAMINATION

7 BY THE BOARD:

8 HEARING OFFICER ORTH: Madam Chair, do you
9 have questions of the Section 115 witnesses?

10 CHAIR SUINA: Yeah. I think this is just a
11 follow-up to Ms. Katz' question, is -- I think this
12 would be for Ms. Kuehn, is -- what's been any discussion
13 regarding the temporary -- the language for temporary
14 flaring? Has there been any consideration? And if
15 there has been, can you just share with the Board what
16 it has been thus far?

17 MS. BISBEY-KUEHN: Yes, Chair Suina. There
18 was a request to simply exempt temporary equipment from
19 the operational standards under the section. The
20 Department did not agree to exempt those temporary
21 controls from the operational standards. But we are
22 willing to consider a definition of temporary and -- and
23 find a way to come to an agreement on what -- what
24 standards would apply for those -- for those sources.

25 CHAIR SUINA: Thank you, Ms. Kuehn.

1 And have any of the other -- I know EDF had a
2 witness. Has there been any other concerns regarding
3 some of the language from some of the other parties,
4 other than the industry?

5 MS. BISBEY-KUEHN: Madam Chair, let me look
6 into that.

7 MS. KATZ: And, Madam Chair, I'll just say
8 that if they -- if a party hasn't put up a witness on a
9 certain topic or section, it's usually indicative that
10 they didn't have specific concerns about that. But --
11 and I don't know -- I can't -- I don't know if EDF's
12 witness -- I can't remember if it was -- he was supposed
13 to testify on this point or a different one.

14 CHAIR SUINA: Okay. I just wanted to make
15 sure -- thank you, Ms. Katz. I just wanted to make sure
16 since I know EDF was listed as a rebuttal witness -- I
17 just wanted to kind of have an understanding if there
18 was any other concerns.

19 And then I think I have one more question
20 for -- I think it's Mr. Meyer.

21 I know you had talked about some of these
22 issues with -- regarding temporary issues or temporary
23 flaring that -- that needs to happen, and I think you
24 used the language they were unanticipated, you know,
25 instances or situations.

1 Is there a -- do you have an estimate as to
2 how often an unanticipated issue or situation arose,
3 say, in the last year?

4 MR. MEYER: Oh, let's see.

5 I'm sorry. I can't think of one off the top
6 of my head, of an unanticipated operation that -- a lot
7 of times there -- it's associated with a malfunction, to
8 be honest. However -- I'm trying to think of a good
9 example, but it's not coming to mind.

10 I may be able to put out some anecdotal to the
11 group if that's of interest to people. But it would
12 have -- I think when Mr. Hiser is referring to -- you
13 know, we're referring to temporary, it was to, you know,
14 you have a permanent in-place flare combustor, and then
15 the lead time to procure one in a quick order before
16 this other one gets repaired can sometimes be very
17 difficult, and we have to do whatever we have to do to
18 put -- to get it under control.

19 So I think it really comes back to Ms. Katz'
20 point, the -- how do we define temporary. And I'll find
21 some scenarios for us to talk about.

22 CHAIR SUINA: Absolutely. You know, my
23 background and -- is in water, and so when you use the
24 phrase "100-year flood event," I --

25 MR. MEYER: (Unintelligible and/or inaudible.)

1 CHAIR SUINA: -- I resonated with that, and so
2 I was thinking is it every hundred years, is it every
3 year. And so I just wanted to get some kind of idea of
4 how frequent, you know, this situation would arise.

5 MR. MEYER: Yeah. And I guess I couldn't
6 answer that at this time.

7 CHAIR SUINA: Okay.

8 MR. MEYER: Thanks.

9 CHAIR SUINA: All right. Thank you so much,
10 and maybe -- we're still here for a couple of other
11 days, maybe that information will be available later on.

12 MR. MEYER: Sure.

13 CHAIR SUINA: Would that be possible? Okay.
14 Thank you.

15 (Simultaneous discussion.)

16 MS. BISBEY-KUEHN: Madam Chair, if I could
17 come back to your original question.

18 So I went through our rebuttal testimony, and
19 I didn't see any -- any of the other parties
20 specifically commenting on that section. However,
21 EDF's -- in their original proposal they had included
22 their flowback vessel requirements within Section 115.
23 They have subsequently moved those out of 115, into
24 their own -- into its own section.

25 CHAIR SUINA: Okay. Thank you for that,

1 Ms. Kuehn. I appreciate it.

2 Thank you, Madam Hearing Officer. That's all
3 for now.

4 HEARING OFFICER ORTH: Thank you.

5 Vice-Chair Trujillo Davis.

6 VICE-CHAIR TRUJILLO DAVIS: Yes. Thank you.

7 And I'm going to skip around to a couple of
8 different witnesses, but I'm going to start with
9 Ms. Kuehn.

10 I just want to say that I -- one of the
11 stronger points in this rule that I've seen so far was
12 in the engine portion where there was effective dates
13 and percentages for compliance, the 35 percent by a
14 certain date and so on. And so I have to say I -- I
15 think I echo Mr. Hiser's point when he -- he mentioned
16 that that kind of was missing from other portions, like
17 the flares -- flare portion of it.

18 So is there discussions? I just want -- I
19 think you mentioned that there would be some discussion
20 on that, but I -- I think that was a valid point. Can
21 you expand on that?

22 MS. BISBEY-KUEHN: Yes, Vice-Chair Trujillo
23 Davis. And we will -- we will go through and ensure
24 that -- that compliance deadlines are clear in each
25 section based on that comment. That may have been an

1 oversight, and we will go back and ensure that there's a
2 clear compliance timeline for -- for each one of those
3 requirements.

4 VICE-CHAIR TRUJILLO DAVIS: Okay.

5 MS. BISBEY-KUEHN: Yeah. And so I think a
6 year would be reasonable. That is what we have
7 established in other flare requirements. But we'll go
8 back and ensure that that's as clear as it needs to be.

9 VICE-CHAIR TRUJILLO DAVIS: Okay.

10 And yes. I don't have any thoughts on your
11 timeframe on that. I just thought it was a really
12 strong point in the engines section of this rule. So
13 that's all I have on that one.

14 And then my next question is for
15 Mr. Holderman.

16 I don't see him on the screen. You're there?
17 Oh, sorry. You are -- and my screen's over here.

18 So new -- in my experience, new facilities are
19 being built with one or two VRUs.

20 So the numbers that you quoted for additional
21 VRUs, was that to bring older facilities into compliance
22 for the rule?

23 MR. HOLDERMAN: Yes. So, I mean, I guess to
24 give you notional numbers, so we -- since 2017 we've
25 built 30, 31 facilities that average about four VRUs per

1 facility. So each, you know, multiple (unintelligible
2 and/or inaudible), et cetera, on each facility. So that
3 one to two that you quote is accurate. So that puts us
4 at 120 VRUs that we would buy for our development
5 program. That's what I'm talking about.

6 That -- that equates to only about 300, 400
7 wells out of the 2,700 that we operate. So the
8 additional 150 to 200 that I'm talking about is for the
9 pre-2017 facilities that would require controls that we
10 don't currently have. And that's what I'm
11 extrapolating.

12 VICE-CHAIR TRUJILLO DAVIS: Okay. I just
13 wanted to be clear on those numbers.

14 And could you give me those numbers just one
15 more time?

16 MR. HOLDERMAN: So the notional feedback, and
17 like I said, this is just conversations with suppliers,
18 is 500. Again we would need 150 -- 500 per year -- I'm
19 sorry -- that the market has. We would need 150 to 200
20 to come into compliance, plus, like I said, what we
21 would need for our development program. So maybe 250 in
22 total over the three years that we're talking about.

23 I guess I just also wanted -- want to drive
24 home that when we're talking about this deadline we
25 actually fully support and are just trying to make sure

1 that primary VRUs are available for those that need
2 them. So the extension that we're requesting is only
3 for the redundant VRUs.

4 VICE-CHAIR TRUJILLO DAVIS: Okay.

5 MR. HOLDERMAN: I wanted to make sure that
6 that was clear while I had the opportunity.

7 VICE-CHAIR TRUJILLO DAVIS: So in my time out
8 in the patch, we would run into problems with getting
9 pipe sometimes overseas and things like that.

10 Are these VRUs -- do you know if they're made
11 stateside, or are you looking at --

12 MR. HOLDERMAN: They're -- they're both. So
13 the -- the manufactured components and the raw materials
14 often come from overseas or the states. They tend to be
15 assembled. So that's when we talk about manufacturing
16 capacity. They're assembled in Oklahoma, Texas, New
17 Mexico, various places. And then they're installed,
18 obviously, and maintained here on site.

19 And, I mean, when we talk to those out there,
20 raw materials are -- are probably the second largest.
21 The availability, though, of folks to actually put them
22 together and do the maintenance, the skilled labor
23 portion of it is where the biggest concerns seem to lie.
24 Because, I mean, in reality you're talking about
25 creating a significant demand over a two- to three-year

1 period for compliance, and then the jobs will flatten
2 back out. You know what I mean?

3 And so being able to track people to go
4 through fairly rigorous training and commit to moving,
5 et cetera, and then not have a long-term assignment --
6 or potential for a long-term position is -- is what
7 they're generally worried about. You will be able to
8 transfer some of those folks to -- to the field for
9 installation, but that's not a -- a guaranteed
10 assumption.

11 Because like I said, they're -- there's a
12 lot -- there's a fairly big difference between being in
13 the manufacturing facility and moving out to
14 (unintelligible and/or inaudible).

15 People are number one, raw materials are
16 number two, and then there seems to be adequate
17 manufacturing capacity if we're able -- I mean, that
18 would be the third one, manufacturing.

19 VICE-CHAIR TRUJILLO DAVIS: Thank you. My
20 next question was going to be how long you thought this
21 was going to be an issue before it resolved itself with
22 demand. So I think that's -- that's all I have on that
23 one.

24 And so my next -- my last question is for
25 Mr. Meyer.

1 So thank you, all, for your patience.

2 You were discussing the optimal operation for
3 a VRU, and we discussed in previous conversations the
4 higher end of that range.

5 But I was wondering if there's a low end. So
6 is there a bottom range where the VRU becomes
7 ineffective?

8 MR. MEYER: Well, there's a lot of ways to
9 handle that. You can handle -- if I have to have an
10 oversized VRU for my closed vent system certification
11 perspective, right, there's ways you can offset it with
12 makeup gas. That's usually the number way -- one way of
13 doing it. So that way I can have a continuous gas feed
14 slipstream coming from the upstream facility to the
15 suction side of a VRU. Right?

16 And the gas just kind of gets recirculated.
17 Right? So adding these circulation loops is a good way
18 of controlling it. VFDs, variable frequency drive VRUs,
19 are good. Those are much more expensive.

20 So there's ways of handling the turndown
21 with -- with VRUs I would say a lot better than a
22 combustor or a flare. Combustor or flare, you know, if
23 we're talking about tanks, right, the bottom end is, you
24 know, one to two ounces, but I have to keep that tank to
25 below 16, 14 ounces. So that's my inlet pressure range.

1 And then I have all these other -- I have to design that
2 flow rate of that combustor for a multitude of different
3 flow scenarios and upset conditions.

4 So it becomes, in my opinion, very difficult
5 with a system that's strictly a flare or a -- or a
6 combustor. VRUs are things we can do because we're not
7 talking about efficiency in terms of burning. But
8 flares, in my opinion, are -- and combustors are much
9 more difficult.

10 VICE-CHAIR TRUJILLO DAVIS: So just to help me
11 clarify it in my mind, but if you drop to the low end of
12 that range, in the current -- current setups, I guess,
13 right now -- if you drop to the low end of that range,
14 do you have to go to flare or a combustor?

15 MR. MEYER: If -- you're saying if the --
16 you're asking if the pressure at the inlet of a VRU
17 drops? There's -- there's a lot of difficulties.
18 Right? It's not that the -- it's not that a flare turns
19 on and you divert it in that instance.

20 What is a hazard potentially is oxygen
21 entrainment through either thief hatches or, honestly,
22 into the -- through the pipe themselves. The suction
23 right at the VRU is under great negative pressure. So
24 there's a potential for atmospheric air to get in,
25 right, unless you properly design that right.

1 So there are a lot of -- there are a lot of
2 issues with dealing with that. And then you -- there --
3 ultimately, you know, VRUs can go in a recirculation
4 mode, like I said, where they take the exhaust from the
5 area and put it right back at the inlet. Well, in that
6 case the temperature of the gas tends to rise, rise,
7 rise, until this thing shuts down on temperature.

8 So there's -- there's -- there can be issues.
9 There are more facility upgrades that are needed than
10 just the VRU. A lot of the context of -- like a lot of
11 things Valor has done with this -- this testimony is to
12 kind of shed a little bit of light. Yes, a combustor
13 costs this, but there's all these other facility
14 considerations you need to look at that could increase
15 the cost.

16 I'm not sure if I answered your question.
17 Sorry.

18 VICE-CHAIR TRUJILLO DAVIS: No. You're giving
19 me a good picture of what's going on here.

20 So as long as the thief hatches stay closed
21 and oxygen is not being introduced from some other
22 mechanism, your V -- and the pressure doesn't get
23 above -- or stays around one or two tons, you should be
24 able to operate that VRU 90, 80 percent of the time?
25 Okay?

1 MR. MEYER: I think there -- we're, you know,
2 doing testing right now. I'm doing testing where
3 there's, you know -- we're tracking that a little bit
4 more diligently than maybe has been done in the past.
5 However, there is the occasional power outage that now
6 you're -- now your VRU is down and you have this tank
7 full of oxygen from the air, because it brought in
8 oxygen at night. Now how do you get rid of that? There
9 is -- you have to, you know, be careful about it.

10 So keeping -- staying in operation is actually
11 not only critical from a business perspective of keeping
12 the molecules flowing for sales, but also, if you get in
13 an upset condition, what do you do in designing a
14 facility so that you can actually get back up and
15 running quickly.

16 So in terms of 90 percent of the time, to your
17 question, I think it's a little too soon to answer that,
18 because of, one, VR -- not all VRUs are the same, not
19 all systems are designed the same. You know, tanks, for
20 example, can have a rating of 16 ounces or four. Right?
21 I think I put this in my testimony, where a lot of the
22 issues we're seeing is a tank -- you know, folks are
23 trying to control emissions, but the tanks are only
24 rated for four ounces, and that's not a lot.

25 Just to give everyone some context of what

1 that means, if you were to take a gauge and blow into
2 it, like you're blowing an air balloon up -- a balloon
3 up, you can blow 36 ounces. So four ounces is nothing.
4 So it's very difficult to control tank vapors.

5 You know, in -- and, of course, this is all
6 compounded by availability of the right equipment.
7 Right? So -- in terms of how often these things would
8 run or could run, I think it could be done depending on
9 the facility and what's there already. That's all I can
10 really say about that.

11 VICE-CHAIR TRUJILLO DAVIS: Okay. Thank you
12 for that. I appreciate you all answering my questions.

13 MR. MEYER: Okay.

14 VICE-CHAIR TRUJILLO DAVIS: I don't have any
15 more.

16 HEARING OFFICER ORTH: All right. Thank you,
17 Vice-Chair.

18 We do need a break, and we do need 15 minutes.
19 So what I'd like to do is come back at 4:00 -- sorry --
20 5:10, and I will get on the platform just to tell folks
21 present for the five o'clock public comment session that
22 we're going to start at 5:10.

23 Come back at 5:10, please.

24 (Proceedings in recess from 4:57 p.m. to
25 5:10 p.m.)

1 HEARING OFFICER ORTH: Let's come back from
2 the break, please.

3 We are back after a short break for the five
4 o'clock public comment session in EIB 21-27.

5 Public comment is taken under oath under the
6 Board rules, limited to five minutes, and is taken by
7 audio rather than video.

8 We had one person reach out through e-mail,
9 and I will call on him first. That's Arvin Trujillo.

10 And now I have someone reaching out through
11 chat, which is Robert McIntyre.

12 In the event you're on the platform and wish
13 to give public comment and haven't given it before,
14 please do reach out through chat.

15 So, Mr. Trujillo, I'm unmuting you.

16 Can you hear me?

17 MR. TRUJILLO: Yes, I can.

18 HEARING OFFICER ORTH: Oh, good. And I'm
19 hearing your voice quite clearly.

20 If you would please spell your name.

21 MR. TRUJILLO: Arvin, A-R-V-I-N, Trujillo,
22 T-R-U-J-I-L-L-O.

23 HEARING OFFICER ORTH: Thank you.

24 And if you would raise your right hand.

25 Do you swear or affirm to tell the truth?

1 MR. TRUJILLO: Yes, I do.

2 HEARING OFFICER ORTH: Thank you.

3 ARVIN TRUJILLO

4 having been first duly sworn or affirmed, gave
5 public comment as follows:

6 PUBLIC COMMENT

7 HEARING OFFICER ORTH: I'm going to start your
8 five minutes now.

9 MR. TRUJILLO: Thank you very much.

10 And again thank you to Members of the New
11 Mexico Environmental Improvement Board.

12 My name is Arvin Trujillo, and I'm the CEO for
13 Four Corners Economic Development. Four Corners
14 Economic Development is a nonprofit, public-private
15 economic development organization located in Farmington,
16 New Mexico.

17 And what I want to comment on is the ozone
18 rule and how it impacts us. And basically, the oil and
19 gas industry here in San Juan County is one of our major
20 economic drivers, and has been so for the past 60 years,
21 along with the coal industry here in the county. It not
22 only has been a driver here in San Juan County, but
23 really in the four states region here, collectively
24 known as the Four Corners region.

25 These industries have provided taxes for local

1 government in schools. They've been good careers for
2 local residents. They've allowed for royalty payments
3 for our tribal and nontribal land users. And they've
4 also provided charitable and community support for a
5 number of our surrounding counties here in San Juan
6 County.

7 And looking at the impacts right now, in 2010
8 the population in San Juan County was 130,044, but in
9 the recent count in 2020, our population has declined to
10 121,661, which is approximately a 6.4 percent decline.

11 And from a jobs and labor standpoint, San Juan
12 County statistically has shown that through the oil and
13 gas industry approximately 1,400 jobs have been realized
14 through the industry, labor income at about 887 million,
15 adding about 2.4 billion to the economy. But this has
16 very much declined, I think, in San Juan County.

17 We don't have a feel for the numbers yet. But
18 just to give you an idea, during most of 2020 and up
19 through the second quarter of 2021, there were no
20 drilling rigs active here in San Juan County. And in
21 fact, production has very slightly begun. We've got
22 four active drill rigs at this point. And again
23 we're -- many of the companies are working on how they
24 can support that overall effort.

25 And so again looking at our concerns here and

1 my concern heading up Four Corners Economic Development,
2 as I indicated, oil and natural gas is one of our
3 economic drivers here in the county. It provides direct
4 jobs, which are also a source of indirect jobs through
5 the support and equipment companies here in the county.

6 The labor revenue generated from these jobs
7 support service and retail-related jobs also in the
8 region. And Farmington is a regional hub for the four
9 states area. And much of that was built on the coal, as
10 well as the oil and gas industries.

11 The concern here is looking at our small
12 businesses. Many of those businesses support oil and
13 gas development. But -- and again through this
14 challenging period, many of them have seen a decline,
15 but many of them have shown a resilience, looking at new
16 markets, as well as developing new value-added products
17 to keep their businesses operated and running.

18 My further concern is the fact that -- and I
19 read the recent letter from the state Legislative
20 Finance Committee looking at this particular rule. And
21 the study that was done for the committee indicated that
22 approximately 97.3 percent of existing oil and natural
23 gas wells would be affected in New Mexico. And this --
24 this rule, the ozone rule, would cost operators
25 3.3 billion the first year of compliance, and for the

1 next five years they're estimating at least 3.8 billion
2 in costs to stay in compliance.

3 Our concerns with this is the fact that this
4 cost will curtail further development here in San Juan
5 County. And we're right now in the processes of
6 determining how do we transition. So looking at the
7 regulations, I would ask that you take the local
8 economies into consideration as you begin to look at
9 this. Oil and gas has been a foundation for New Mexico
10 economy and has been a foundation for our state budget
11 and public schools.

12 We are looking at how we can transition
13 through this effort. I think working with the oil and
14 gas producers will help us find ways to transition
15 effectively, but still keep our economic endeavors
16 moving and growth developing in our areas.

17 So again I'm looking at the Board here to take
18 this into consideration. We're challenged here in San
19 Juan County. We're looking at ways to develop and
20 mitigate the issues. We're looking at new ways to
21 develop our economy and diversify our economy.

22 But again we've got to work through this
23 transition, and the only way we can do that is with your
24 help, looking at these rules and making sure you take
25 into consideration our economic standing and how

1 these -- this industry impacts our particular area and
2 region.

3 Thank you very much.

4 HEARING OFFICER ORTH: Thank you,
5 Mr. Trujillo.

6 Let's see. So, in fact, the gentleman I
7 thought was indicating a desire to offer public comment
8 after Mr. Trujillo was not indicating that.

9 Is there anyone else on the platform who would
10 be interested in offering comment at this time? Please
11 reach out in the chat.

12 In the event you have any trouble with the
13 chat function in any of these sessions, please text
14 (505) 660-4305. That's Pam Jones, the administrator.

15 And there are -- let's see -- 12 more
16 opportunities for public comment, at 9:00, 1:00 and 5:00
17 every day between now and Friday.

18 All right. So let's return to the technical
19 case.

20 Can we get Mr. Holderman, Ms. Kuehn and
21 Mr. Meyer back on the screen.

22
23
24
25

1 ELIZABETH BISBEY-KUEHN, BRIAN PALMER,
2 DANNY HOLDERMAN and ADAM MEYER
3 (Relating to Topic Order 26)
4 having been first duly sworn or affirmed, were
5 examined and testified further as follows:

6 EXAMINATION (Continued)

7 BY THE BOARD:

8 HEARING OFFICER ORTH: Thank you.

9 When we broke -- let's see. The Chair and
10 Vice-Chair had presented their questions.

11 Member Cates, do you have questions of this
12 panel?

13 MEMBER CATES: Madam Hearing Officer, I just
14 wanted to say I appreciate the consolidated format here.
15 I think it helps move things along, and I -- so I
16 appreciate that.

17 And that's it. I don't have any questions.
18 Thank you.

19 HEARING OFFICER ORTH: Thank you.

20 Member Bitzer?

21 MEMBER BITZER: I think it was Mr. Meyer was
22 talking about -- and our Chair Suina had mentioned
23 the -- her interest was piqued by the hundred-year event
24 analogy.

25 And I'm wondering if -- you got a variety of

1 things that could cause negative externalities here. I
2 was wondering if everything's going along smoothly and
3 all of a sudden the content of what you're extracting
4 changes substantially, does that have the potential to
5 throw you all for a loop?

6 In the old days, I imagine it was just pure
7 unsmelly natural gas and you shipped it off to Texas to
8 put some sulfur in it, shipped it back so we wouldn't
9 freeze to death, in Taos in a -- in a cold winter. But
10 I get it -- I get it now that it's a little more
11 involved than that, and I'm not sure it wouldn't change
12 over time.

13 Does -- does that happen suddenly sometimes?

14 MR. MEYER: So I think, you know, when I talk
15 about composition and how that is fluctuating, right,
16 it's a -- and let's just say the vapor composition in a
17 tank's -- a tank battery. You know, if you're producing
18 out of the separation equipment, right, if you're
19 flowing continuously through -- you know, through a
20 heater treater and separator, there's a vapor recovery
21 tower, you know, there's a good chance that the
22 composition is fluctuating, but within reason, it's
23 foreseeable.

24 Where it becomes tricky are kind of two --
25 well, there's several circumstances, but I'll just

1 highlight two of them.

2 Miscellaneous scrubbers and vessels throughout
3 the facility that are used to kind of knock out liquids
4 out of a gas stream, sometimes those are routed to a
5 tank battery. Right? And when those kind go off, well,
6 that's a higher -- that's a -- maybe a lower Btu value
7 liquid, more volatile, a lot more light ends, light end,
8 you know, carbons, and it can momentarily disrupt the --
9 that continuous vapor composition. Right?

10 Another thing is truck vapor capture.
11 Actually, that's probably the biggest one if I were to
12 say. So if you have -- are required to capture vapors
13 during a truck load-out, the -- we don't know what the
14 composition of the gas in those trucks are when they
15 roll up on site. And sometimes we have a good idea, but
16 sometimes they could be all over the place.

17 And I'm -- I was very pleased when we kind of
18 moved away from water truck vapor capture, because those
19 can inject a huge slug of air into your tanks if you're
20 trying to capture. Right? And that disrupts
21 everything.

22 I would say the other thing to think about,
23 too, is that these wells are -- you know, the vapor
24 composition of the tanks is really a reflection of
25 what's coming in from the wells. If the wells are

1 flowing nice and steady, then production and pressure in
2 the tanks is nice and steady. But the wells don't
3 behave like that. There's slugging, there's surges.

4 And, you know, a separator that, you know, was
5 doing just fine, producing an instantaneous rate of 100
6 gallons per minute consecutively, and now all of a
7 sudden that spikes up to 200 gallons a minute, it's not
8 stewing this proper separation as it would. It's not
9 that it's not getting out the gas. It's just that the
10 liquid composition is different, you know.

11 So these systems are not steady, by any means.
12 And that's the problem, is that they're not steady.

13 MEMBER BITZER: That's all I have, Madam
14 Chair.

15 HEARING OFFICER ORTH: Thank you.

16 Member Garcia?

17 MEMBER GARCIA: No questions. Thank you.

18 HEARING OFFICER ORTH: Thank you.

19 And Member Honker.

20 MEMBER HONKER: No questions. Thank you.

21 HEARING OFFICER ORTH: All right. Thank you.

22 Did any of that questioning prompt follow-up
23 by the witnesses' counsel?

24 I don't see anyone turning on their cameras.

25 Thank you, all, witnesses, Ms. Kuehn,

1 Mr. Holderman, Mr. Meyer.

2 MR. MEYER: Thank you.

3 MR. HOLDERMAN: Thank you.

4 HEARING OFFICER ORTH: Ms. Katz, are we going
5 now to topic 116?

6 MS. KATZ: No, Madam Hearing Officer. That's
7 the leak detection and repair that is scheduled at this
8 point for Wednesday.

9 HEARING OFFICER ORTH: That's right.

10 MS. KATZ: So if -- so the next one would be
11 Section 117. I don't know if the other parties involved
12 in that section, natural gas well liquid unloading, are
13 available to move to that section.

14 HEARING OFFICER ORTH: Ms. Paranhos -- let me
15 see if she's on the platform.

16 I don't see her on the platform.

17 That was specifically a section she said they
18 had a witness, for the liquids unloading.

19 MS. KATZ: We could -- we could move to -- I
20 believe Mr. Hiser said that -- that his -- their
21 dehydrator -- glycol dehydrator person wasn't available
22 this evening.

23 We could move to heaters. That's an option.

24 MR. HISER: Madam Hearing Officer, we do have
25 our heater witness available with us right now.

1 HEARING OFFICER ORTH: Terrific. Let's do
2 that, then. Thank you, Mr. Hiser.

3 MS. KATZ: Okay. So the Department calls
4 Ms. Kuehn and Mr. Palmer for heaters.

5 HEARING OFFICER ORTH: Okay. Thank you.

6 ELIZABETH BISBEY-KUEHN and BRIAN PALMER

7 (Relating to Topic Order 30)

8 having been first duly sworn or affirmed, were
9 examined and testified as follows:

10 HEARING OFFICER ORTH: And, Ms. Kuehn, will
11 you be driving the slides?

12 MS. BISBEY-KUEHN: (Nods head.)

13 HEARING OFFICER ORTH: Okay.

14 There you go.

15 MS. KATZ: So -- and for the Board's -- the
16 Board to follow, this is Section 20.2.50.119 of the
17 rule, and the testimony begin -- is in -- is on NMED
18 Exhibit 32, beginning on page 105, and NMED Rebuttal
19 Exhibit 1, page 73 through 76.

20 And so Ms. Kuehn and Mr. Palmer have both
21 adopted their testimony, and I don't believe there are
22 any errors that need to be corrected. So we can move
23 forward with Ms. Kuehn.

24 DIRECT EXAMINATION

25 BY MS. KATZ:

1 MS. KATZ: Please give -- please summarize the
2 equipment that is the subject of this section of the
3 rule.

4 MS. BISBEY-KUEHN: Great. Thank you.

5 This section we're referring to tonight is
6 Section 119, covering heaters. Natural gas-fired
7 heaters are used throughout the oil and gas sector for
8 the -- a variety of reasons, including preventing
9 equipment from freezing and being blocked by the
10 formation of ice or hydrates, to improve the separation
11 of well products into oil, water and gas, and in certain
12 types of process equipment such as glycol dehydrators.

13 MS. KATZ: Can you discuss the control options
14 for controlling emissions from heaters?

15 MS. BISBEY-KUEHN: Yes. So NOx emissions are
16 the primary pollutant that we're targeting with the
17 heater requirements, and NOx emissions from heaters may
18 be controlled through combustion modifications that
19 reduce the formation of NOx. This is primarily by
20 reducing the combustion temperature and limiting thermal
21 NOx emissions, add-on controls to control NOx emissions
22 in the exhaust stack, and then also a combination of
23 combustion modifications and add-on controls.

24 In addition, many regulatory -- federal
25 regulatory programs require periodic equipment tune-ups

1 and a requirement to operate those units following good
2 combustion practices to keep heaters operating at
3 maximum efficiency in order to reduce emissions. In
4 addition, good combustion practices are important for
5 reducing or controlling CO and VOC emissions.

6 MS. KATZ: And can you discuss the emission
7 standards that apply to heaters under the rule?

8 MS. BISBEY-KUEHN: Yes. The proposed rule
9 limits existing and new natural gas-fired heaters that
10 emit or that have -- excuse me -- a capacity --
11 throughput capacity of 20 million Btu per hour to 30
12 million ppmvd of NOx at 3 percent oxygen and 400 ppmvd
13 carbon monoxide at 3 percent oxygen.

14 Existing heaters are required to comply with
15 these standards no later than three years after the
16 effective date of this part, and new heaters must comply
17 upon startup.

18 MS. KATZ: Thank you.

19 And, Mr. Palmer, can you discuss the basis for
20 where the proposed requirements for heaters came from?

21 MR. PALMER: Um-hum. Excuse me. Yeah. The
22 NOx and CO limits are based on limits adopted by -- based
23 on our review of rules in Pennsylvania, Texas and
24 California for natural gas-fired combustion units. The
25 NOx limits are the same as in Pennsylvania GP-5, General

1 Permit 5, requirements for natural gas-fired combustion
2 units, and that's specific to oil and gas industry.

3 The CO limits are the same as Texas'
4 requirements for combustion sources, are on the Texas
5 Administrative Code, Title 30, Part 1, Chapter 117; and
6 also South Coast Air Quality Management District Rule
7 1146, which is -- covers emissions of oxides of nitrogen
8 from industrial, institutional, commercial boilers,
9 steam generators and process heaters.

10 MS. KATZ: And, Mr. Palmer, can you discuss
11 the estimated emissions reductions and costs for this
12 section?

13 MR. PALMER: I can. The overall emission
14 reduction is estimated to be 176 tons of NOx, and that's
15 based on allowable emissions in the NMED database as a
16 result of the rule. The estimated cost effectiveness is
17 \$3,010 per ton of NOx based on the use of low NOx burners
18 to control emissions.

19 And the cost effectiveness is based on a total
20 annualized cost of \$15,553 per year for a low NOx burner
21 as calculated from information in the USEPA's
22 Alternative Control Techniques Document covering NOx
23 emissions from process heaters, which is NMED
24 Exhibit 53.

25 MS. KATZ: Thank you.

1 And, Ms. Kuehn, can you discuss comments that
2 were received and go through the rule language on
3 proposed revisions to the rule?

4 MS. BISBEY-KUEHN: Yes. I will. And this
5 slide provides an overview of those comments that we
6 received from stakeholders.

7 NMOGA proposed to modify the CO emission limit
8 for both new and existing heaters from 300 ppmv to 400
9 for all units. The Department agreed that there is a
10 relationship between NOx and CO emissions and that
11 regulatory programs in California and Texas currently
12 require CO emissions to remain below 400 ppm in certain
13 nonattainment areas, and so we agreed to that request.

14 NMOGA addition -- also proposed three years
15 compliance timelines for existing heaters. We did agree
16 to an extension of the compliance deadline for existing
17 heaters to three years.

18 IPANM proposed to raise the applicability
19 threshold for heaters from 10 to -- 10 million Btu per
20 hour to 50 million Btu per hour. The Department did not
21 agree to that request, but did agree to increase the
22 applicability threshold to 20 million Btu per hour,
23 which we believe addresses the comments from IPANM.

24 So this is the rule as it's currently before
25 you today. This section of the rule follows the

1 framework that we have discussed in other sections.

2 So we have applicability under Paragraph A,
3 which identifies that natural gas-fired heaters with a
4 heat input equal to or greater than 20 million Btu per
5 hour, including heater treaters and other types of
6 heaters, are -- and located at well sites, tank
7 batteries, gathering and boosting stations, natural gas
8 processing plants and transmission compressor stations
9 are subject to the requirements of this section.

10 And Paragraph B contains the emission
11 standards for these types of -- for heaters. And Table
12 1 explains what those emission standards are for NOx and
13 CO. And so you can see that heaters constructed before
14 the effective date are subject to a 30 and 400 ppmvd
15 emissions limits, and also heaters constructed after the
16 effective date are -- are subject to those identical
17 emission standards.

18 In Paragraph B.(2), you can see the revision
19 to the extension to the compliance timeline for those
20 heaters from one to three years. You can see the
21 striking of the requirement to install an equipment
22 monitoring tag.

23 Paragraph C, the monitoring requirements,
24 contain the types of testing that an owner or operator
25 must do in order to demonstrate compliance with the

1 emission standards that are established in this part.
2 So there is a requirement to conduct an emission test
3 for NOx and CO within 180 days of the compliance date
4 specified in the -- in the two compliance deadlines that
5 are found in Paragraphs B.(2) and (3), and then to
6 conduct a test at least two years -- once every two
7 years thereafter.

8 Owners and operators are also required to
9 inspect and maintain the unit in accordance with
10 manufacturer specifications, and specifically to conduct
11 specific types of inspections of the burner and cleaning
12 or replacing components in order to ensure the unit is
13 properly operated.

14 In addition, they're required to inspect the
15 flame pattern and adjust necessary to ensure proper
16 combustion, inspect the AFR controller if it's present,
17 optimize the emissions of CO consistent with the NOx
18 requirement, and then measure concentrations of CO in
19 order to fine-tune that -- that good combustion.

20 This Paragraph (2) identifies the types of
21 testing requirements that are in place. It establishes
22 that the number of tests that must be conducted for an
23 annual or biannual test. It establishes the duration of
24 the test, and the reference methods or -- that may be
25 used in addition to the option to conduct the test with

1 a portable analyzer.

2 So we'll continue with the monitoring
3 requirements. This -- the Paragraph D establishes the
4 load that the unit must be tested at. Paragraph (3)
5 establishes if there's a deviation, how that deviation
6 from the procedures in the testing -- how an alternative
7 procedure may be requested by the Department. Paragraph
8 (4) establishes the type of information that must be
9 collected during the monitoring event.

10 And the recordkeeping requirements are
11 established in Paragraph D. These were again minor
12 clerical and editorial changes that didn't change the
13 intent of the rule, but clarified language for -- for
14 operators and the Department.

15 And then Paragraph E concludes this
16 presentation. There was no comments made to the
17 reporting requirements.

18 MS. KATZ: Thank you.

19 And that is all for the Department's
20 presentation on the heaters section.

21 HEARING OFFICER ORTH: Thank you, Ms. Katz.

22 Are there any parties who would have
23 questions?

24 I see you on the screen, Mr. Hiser.

25 MR. HISER: No questions. Sorry.

1 HEARING OFFICER ORTH: Okay.

2 Is there any party who has a question?

3 I believe the only other witness we will hear
4 from will be Mr. Lisowski.

5 MR. HISER: I thought that we were going to
6 put the witnesses on and then they're -- oh, I guess
7 we're doing cross-exam first. So I will wait until
8 then.

9 HEARING OFFICER ORTH: Yeah. That -- I asked
10 for that, and you were the only person on the screen.
11 So I think perhaps we'll move to Mr. Lisowski.

12 MR. HISER: He should still be with us.

13 MR. LISOWSKI: I'm still here, you haven't
14 shook me yet.

15 JUSTIN LISOWSKI

16 (Relating to Topic Order 30)

17 having been first duly sworn or affirmed, was
18 examined and testified as follows:

19 DIRECT EXAMINATION

20 BY MR. HISER:

21 Q. Mr. Lisowski, could you spell your name for
22 the court reporter?

23 A. You bet. Justin, same spelling, Lisowski,
24 L-I-S-O-W-S-K-I.

25 Q. And your testimony in this has already been

1 exhibited as found -- already been admitted and is found
2 at Exhibit 43, correct?

3 A. That's correct. Yes.

4 Q. Okay.

5 Did NMOGA request an increase in the CO limit
6 to 400 ppm, as we just heard from Ms. Kuehn?

7 A. Yes, they did.

8 Q. And with that change, does NMOGA find that
9 this provision is fully acceptable to its members?

10 A. I believe so. It's definitely an improvement
11 above the originally proposed levels.

12 Q. And we requested that because we could have
13 better ability to maintain the NOx limits with a slightly
14 more relaxed CO limit; is that correct?

15 A. That's correct. Similar to my earlier
16 testimony on CO, NOx, inverse relationship, as you're
17 decreasing your NOx, your CO is going to increase.

18 MR. HISER: Thank you very much, Mr. Lisowski.

19 Madam Hearing Officer, that's all we have.

20 HEARING OFFICER ORTH: All right. Thank you.

21 Let's see. Ms. Kuehn, if you would rejoin us.

22 I see Mr. Palmer, Mr. Lisowski. I'm going to -- oh, I
23 forgot to ask.

24 Is there a party with a question of
25 Mr. Lisowski?

1 Nope.

2 All right. We turn to the Board for their
3 questions.

4 While I'm doing that, if you're an attendee on
5 this platform and you have a question, please reach out
6 through the chat.

7 Madam Chair, all three witnesses are available
8 for your questioning.

9 CHAIR SUINA: Thank you, Madam Hearing
10 Officer.

11 And thank you to the witnesses.

12 I don't have any questions right now. Thank
13 you.

14 HEARING OFFICER ORTH: All right. Thank you.
15 Vice-Chair Trujillo Davis.

16 VICE-CHAIR TRUJILLO DAVIS: Thank you. I
17 don't have any questions either.

18 HEARING OFFICER ORTH: Thank you.

19 Member Cates?

20 MEMBER CATES: No questions here. Thank you.

21 HEARING OFFICER ORTH: All right.

22 Member Bitzer?

23 MEMBER BITZER: No questions. Thank you.

24 HEARING OFFICER ORTH: All right.

25 Member Garcia?

1 MEMBER GARCIA: No questions. Thank you.

2 HEARING OFFICER ORTH: Thank you.

3 And Member Honker.

4 MEMBER HONKER: No questions. Thank you.

5 HEARING OFFICER ORTH: Oh, terrific. All
6 right.

7 Well, thank you, witnesses.

8 I believe we just managed to finish
9 Section 119.

10 Would we be able to move into Section 120,
11 that's hydrocarbon liquid transfers?

12 MS. KATZ: I am not sure about that.

13 MR. HISER: Madam Hearing Officer, similar to
14 Ms. Katz, we may have now run beyond where we have
15 prefilled materials.

16 HEARING OFFICER ORTH: Okay. All right.

17 MS. KATZ: If -- if parties have materials
18 available, I'm willing to waive the day before
19 requirement if that would help. But, I mean, of course,
20 it's up to everybody else.

21 HEARING OFFICER ORTH: Right.

22 MR. HISER: Let me check with Mr. Smitherman
23 about how prepared he is on this topic.

24 HEARING OFFICER ORTH: All right.

25 MR. JANOE: This is Scott Janoe on behalf of

1 Oxy.

2 To the extent if the state were prepared to
3 go, Oxy's witness is prepared to go on 120. I would at
4 least want to knock that out if we could.

5 HEARING OFFICER ORTH: I'm glad.

6 We'll wait a moment for Mr. Hiser.

7 MR. HISER: I think you can certainly proceed,
8 and we can follow on, or if I can get ahold of him, we
9 can follow right after, one or the other.

10 HEARING OFFICER ORTH: And would we be --

11 MS. KATZ: And then --

12 HEARING OFFICER ORTH: -- hearing from -- I'm
13 sorry.

14 Would we be hearing from CDG with Mr. Kim? Or
15 am I reading this correctly?

16 MS. KATZ: I was just going to ask the same
17 thing. Yes. CDG does have a witness listed for this.
18 I don't know if --

19 HEARING OFFICER ORTH: I believe I saw Mr. Kim
20 here. Let's see.

21 Okay. I don't believe Mr. Kim is on the
22 platform anymore.

23 All right. Is there any reason, though, not
24 to at least get the Department's testimony and
25 Mr. Janoe's testimony and potentially Mr. Hiser's

1 testimony at least on the record so that we have got a
2 head start for when we take it back up?

3 MS. KATZ: I don't see any reason. I'm just
4 double-checking here.

5 Getting the thumbs up from Liz.

6 HEARING OFFICER ORTH: Great.

7 Mr. Hiser?

8 MR. HISER: Yeah. We're prepared at least
9 with Mr. Smitherman, and I think Mr. Meyer is, as well.
10 I'm checking with him now.

11 HEARING OFFICER ORTH: All right.

12 So let's get started, Ms. Katz, see how far we
13 get.

14 MS. KATZ: Let me just -- I'm just getting
15 some stuff pulled up here. Okay.

16 ELIZABETH BISBEY-KUEHN and BRIAN PALMER

17 (Relating to Topic Order 31)

18 having been first duly sworn or affirmed, was
19 examined and testified as follows:

20 DIRECT EXAMINATION

21 BY MS. KATZ:

22 MS. KATZ: Ms. Kuehn needs sharing
23 capabilities.

24 And for the Board, this is
25 Section 20.2.50.120, hydrocarbon liquid transfers, and

1 the testimony appears on -- as NMED Exhibit 32,
2 beginning on page 110, and NMED Exhibit 1, beginning on
3 page 76.

4 And Ms. Kuehn and Mr. Palmer have adopted
5 their testimony, and I don't believe there is any
6 corrections to the hydrocarbon liquid transfers
7 testimony.

8 So, Ms. Kuehn, can you please begin with the
9 discussion of the process that is the subject of this
10 section and the control options.

11 MS. BISBEY-KUEHN: Yes.

12 And is this sharing okay? Can you see that
13 okay? Okay. Great.

14 Okay. Good evening.

15 Moving right along, we're discussing
16 Section 120, it's before you, which covers hydrocarbon
17 liquid transfers.

18 Hydrocarbon liquid transfers involve moving
19 hydrocarbon liquid from a storage tank to a transfer
20 vessel, which may consist of a tanker truck or a
21 railcar. During the transfer, VOC containing vapor from
22 the previous contents of the transfer vessel will be
23 vented as that vessel is filled.

24 There are a number of control options
25 available for minimizing the VOC emissions from this

1 type of operation, including routing those emissions
2 from the storage vessel through an enclosed system to a
3 process where those emissions are either recycled,
4 recovered or reused in the process, for example, by
5 installing a vapor recovery unit that recovers vapors
6 from the vessel for reuse in the process or for
7 beneficial use on site, or routing emissions from the
8 storage develops to a combustion device.

9 In practice, many operators use a single VRU
10 system or combustion device to control emissions from
11 both the hydrocarbon liquid transfers and the storage
12 vessels.

13 Emissions are controlled using vapor -- may
14 also be controlled using vapor balance service, where
15 vapors from the truck or the railcar are routed back to
16 the storage vessel as those liquids in the storage
17 vessel are emptied into the receiving truck or railcar.
18 Vapor balancing requires a pipe or a hose connected
19 between the storage vessel and the tanker truck or
20 railcar prior to the transfer.

21 In addition, bottom loading and submerged fill
22 are additional operational or management practices that
23 can reduce the amount of VOCs that are generated from
24 those transfers.

25 MS. KATZ: Can you discuss -- give an overview

1 of the emission standards that apply to this operations?

2 MS. BISBEY-KUEHN: Yes. Owners and operators
3 are required to control VOC emissions by at least
4 95 percent via vapor balance, vapor recovery or a
5 control device.

6 And if using vapor balance, they must load the
7 displaced vapor back to the vessel being emptied, make
8 inspections of certain equipment to check for leaks,
9 check the hydrocarbon vapor lines and connections for
10 prior -- for proper connections before commencing the
11 loading operation, and operate the transfer equipment at
12 a pressure that is less than the pressure relief valve
13 setting of the receiving vehicle or storage vessel.

14 In addition, operators are required to
15 maintain those connectors and couplers and make --
16 ensure they're in a leak-free condition. In addition,
17 they must support certain pieces of equipment on drip
18 trays to reduce leakage. And they must clean and
19 dispose of leaks in a manner compliant with state law.

20 MS. KATZ: Thank you.

21 And turning to Mr. Palmer.

22 Mr. Palmer, can you please discuss the basis
23 for the proposed requirements for hydrocarbon liquids
24 unloading -- sorry -- liquid transfers and the estimated
25 emissions reductions and costs for that -- for that --

1 for the rule? Thank you.

2 MR. PALMER: Yes. So the control and
3 operational requirements are based on requirements in
4 Colorado Regulation 7, Pennsylvania General Permit 5 and
5 General Permit 5A, also in Utah's Rule R307-504, which
6 is specific to tank truck loading, and then Wyoming's
7 Presumptive Best Available Control Technology for oil
8 and gas truck loading operations.

9 Colorado Reg 7 requires control of load-out
10 emissions from controlled storage tanks to transport
11 vehicles by using submerged fill and a vapor collection
12 and return system or by using air pollution control
13 equipment.

14 Pennsylvania General Permit 5 requires the use
15 of a vapor balancing system when removing liquids from a
16 storage vessel.

17 Utah's rule requires using a vapor capture
18 line connected to a control device with a 95 percent
19 destruction efficiency.

20 And Wyoming's permitting guidance requires a
21 vapor capture line with a collection efficiency of
22 70 percent connected to a control device with a
23 destruction efficiency of at least 98 percent.

24 Slide.

25 So we estimated overall emission reductions

1 from this operation of 4,263 tons per year, and that's
2 based on allowable VOCs from hydrocarbon liquid transfer
3 operations in the permitting database. The estimated
4 cost effectiveness would be \$536 per ton of VOC using
5 combustors to control emissions. And the cost
6 effectiveness is based on total annualized costs of
7 \$24,710 per year for a combustor.

8 And one thing I'd like to point out about the
9 estimated costs is that if we had a facility that had
10 storage tanks and was going to install a control device
11 to meet the requirements for storage tanks, that will be
12 discussed later in the week, we didn't have a separate
13 control device for just the loading operations.

14 So the cost effectiveness for this operation
15 is relatively low, because you're already controlling
16 the storage tanks. So we actually get more reductions
17 from fewer facilities that have cost. So that's why the
18 cost effectiveness number looks quite attractive, you
19 might -- so that's all I have.

20 MS. KATZ: Thank you, Mr. Palmer.

21 Ms. Kuehn, can you please summarize -- go
22 through the provisions of the rule and discuss some of
23 the revisions that were made.

24 MS. BISBEY-KUEHN: Yes. So similar to the
25 other sections, we're following the same framework that

1 we have for other part -- sections of the rule.

2 The applicability section covers not only the
3 types of operations that are subject, but establishes
4 some different applicability thresholds that keep
5 facilities out of the requirements of this section.

6 Hydrocarbon liquid transfers that are located at
7 existing facilities must comply with this requirement
8 within two years of the effective date of this part.
9 New hydrocarbon liquid transfers must comply with the
10 requirements upon startup.

11 We did receive several comments about the fact
12 that there are situations where company -- facilities
13 are connected via an oil pipeline where there may be
14 very infrequent loading operations that result in very
15 minimal emissions, and the Department responded to those
16 comments by establishing a couple of different
17 applicability waivers from this -- from this section.

18 The first one is exempting facilities that are
19 connected to an oil field pipeline from the requirements
20 of this part. Those should very rarely if -- very
21 rarely use this type of loading that we're intending --
22 or this type of transfer that we're intending to cover
23 here.

24 And then the second exemption is for those
25 facilities that load up hydrocarbon liquids to trucks

1 fewer than 13 times in a calendar year.

2 And then in addition, when transferring
3 hydrocarbon liquid from a transfer vessel to a storage
4 vessel, and that -- that tank or that vessel is subject
5 to the tank requirements, there are no additional
6 requirements for those types of liquid transfers, and
7 because that storage vessel is already controlling those
8 emissions, there's no benefit then to adding that
9 duplicative requirement.

10 So under the emission standards section, we
11 made several important clarifications based on feedback
12 from the stakeholders, including clarifying that if a
13 combustion control device is used, the combustion device
14 shall have a minimum design combustion efficiency of
15 98 percent. And we've made that similar statement
16 throughout other sections.

17 And also clarifying that this -- this control
18 requirement applies when transferring hydrocarbon
19 liquids, which was an important clarification to a
20 tanker truck or tanker railcar for transport.

21 The other minor revisions here address
22 comments from stakeholders, were very helpful, I think,
23 in -- in this section. We've added a -- language that
24 addressed facilities that had multiple storage vessels
25 that are manifolded together, and we've clarified that

1 those vapors may be returned to any of the storage
2 vessels that are manifolded together.

3 We've also clarified under the emission
4 standards that they must inspect those connectors and
5 pipes to ensure that they're -- their leak -- that
6 they're inspecting for leaks. And then also clarifying
7 that we're checking for hydrocarbon liquids in the vapor
8 line connections for proper connections.

9 We've struck the requirement for bottom
10 loading or submerged fill. Those are standard practices
11 that is all -- they're already undertaken by most
12 operators. It's not necessary for us to explicitly
13 require that in this -- in this section.

14 And then we've added other minor -- minor
15 editorials, revisions that help clear up the language in
16 Paragraphs (3) and (4).

17 Under the monitoring provisions, we've made
18 important adjustments here based on comments from
19 stakeholders. We've -- we're requiring a monthly
20 inspection of the -- of the equipment at staffed
21 locations and made an adjustment for a semiannual
22 inspection at unstaffed locations, which addressed
23 concerns that it was really impractical to have monthly
24 inspections of these couplers and hoses and valves and
25 pipes at unstaffed locations.

1 We did add in a requirement that at least once
2 per calendar year the inspection shall occur during a
3 transfer operation. We think that's an important
4 component of this inspection, that the inspection
5 actually done -- be done when a transfer operation is
6 occurring. And then we've clarified that measures must
7 be taken to mitigate leaks until repairs are made, in
8 the event that leaks are discovered.

9 What you're looking at now is a
10 red-line/strike-out version of a requirement that was
11 not intended to be included. This -- we did not intend
12 to regulate trucks. This is a vapor pressure testing
13 requirement that has -- that has since been removed,
14 based on the fact that the Department did not intend to
15 regulate the trucks under this part.

16 We've struck the requirement to install an
17 EMT, and we replaced it with a requirement to date and
18 time stamp the event prior to any monitoring event.

19 We've struck -- under the recordkeeping
20 requirements, we've struck the requirement to maintain a
21 record of the location of the storage vessel which was,
22 you know, not really necessary to demonstrate compliance
23 with the emission standards of this part. And so we've
24 modified this somewhat to address that -- that issue.
25 And we have modified the recordkeeping requirements

1 to -- to instead identify the location of the facility,
2 and then identify the type, make and model of the
3 control device if -- if one is being used.

4 And then just very minor other clarifications
5 and edits that -- that cleared up the language.

6 And that is the end of this presentation.

7 MS. KATZ: Thank you, Ms. Kuehn.

8 And that is all the Department has for
9 hydrocarbon liquid transfers.

10 HEARING OFFICER ORTH: Thank you.

11 Are there counsel or parties with questions of
12 the Department panel?

13 Mr. Hiser, I see you on screen.

14 I no longer see you on screen.

15 Are there parties --

16 MR. HISER: I'm sorry. I did not mean to hit
17 that button.

18 HEARING OFFICER ORTH: Are there parties or
19 counsel with questions of the Department panel?

20 No. All right.

21 Are we able to move to Mr. Smitherman and/or
22 Mr. Meyer?

23 MR. HISER: Yes, Madam Hearing Officer. And
24 it may be just as efficient to bring them both on at the
25 same time.

1 HEARING OFFICER ORTH: I agree.

2 JOHN R. SMITHERMAN and ADAM MEYER

3 (Relating to Topic Order 31)

4 having been first duly sworn or affirmed, were
5 examined and testified as follows:

6 DIRECT EXAMINATION

7 BY MR. HISER:

8 MR. HISER: So, Mr. Smitherman, can you state
9 your name for the record, please.

10 MR. SMITHERMAN: John R. Smitherman.

11 MR. HISER: And, Mr. Meyer, can you state your
12 name for the record, as well.

13 MR. MEYER: Adam Meyer.

14 MR. HISER: And, Mr. Smitherman, your
15 testimony is previously admitted as NMOGA Exhibit A1 and
16 NMOGA Exhibit 41; is that correct?

17 MR. SMITHERMAN: That's correct.

18 MR. HISER: And, Mr. Meyer, your testimony on
19 this was admitted as NMOGA Exhibit 42; is that correct?

20 MR. MEYER: Yes, that's correct.

21 MR. HISER: Okay.

22 In the red-lines that were just presented by
23 Ms. Kuehn, has NMED addressed all of the concerns that
24 you had raised in your comments, Mr. Smitherman?

25 MR. SMITHERMAN: They have. We appreciate the

1 fact that they have addressed several of the
2 operational -- operational challenges that we see with
3 this concept.

4 First of all -- if you'd like me to just
5 continue through, Mr. Hiser, I can do so, without
6 question and answer.

7 MR. HISER: Okay. If we could proceed
8 expeditiously given the hour, I think --

9 MR. SMITHERMAN: Absolutely.

10 MR. HISER: -- appreciate that.

11 MR. SMITHERMAN: Absolutely.

12 First of all, we appreciate the fact that
13 low-producing-rate sites have been given some
14 flexibility, plus those sites that are connected to all
15 pipelines.

16 Transfers from storage tanks to trucks or
17 railcars do create vapors, and NMOGA does support
18 capturing these vapors for capturing or more likely for
19 destruction, since many times these tanker trucks have a
20 substantial amount of air in them. So you really don't
21 have a saleable product in them.

22 Also, these transfers happen around the clock.
23 It's very, very difficult for us to witness very many of
24 these without extraordinary efforts.

25 We also -- also especially appreciate the fact

1 that the -- this rule has been clarified to make sure it
2 applies to crude oil transfers only of not produced
3 water. Produced water transfers, as Mr. Meyer had
4 mentioned earlier, are a very different thing, would
5 make it very difficult to apply the same controls.

6 That's the sum -- that's the end of my
7 summary, Mr. Hiser.

8 MR. HISER: Thank you, Mr. Smitherman.

9 Similarly, Mr. Meyer, has the red-lines that
10 were just outlined by Ms. Kuehn addressed the concerns
11 that you had raised in your prior testimony on this
12 matter?

13 MR. MEYER: Yes. Specifically, like
14 Mr. Smitherman said, regarding water transfer vapor
15 capture during a water load-out, as well as the
16 clarification of allowing with truck vapor balance back
17 to any tank in the tank battery, those two things will
18 very much help future designs.

19 MR. HISER: And then you also are supportive
20 of the Department's clarification that it's not the
21 leak-free, but often it's minimize emissions where we're
22 connecting and disconnecting hoses?

23 MR. MEYER: Absolutely, I support that.

24 MR. HISER: Thank you.

25 That's all I have, Madam Hearing Officer.

1 HEARING OFFICER ORTH: Thank you, Mr. Hiser
2 and gentlemen.

3 I'm not sure if we were able to get Mr. Kim on
4 the program -- platform. Excuse me.

5 Mr. Colclasure?

6 Oh. We may also have Mr. Holderman to hear
7 from.

8 MR. JANOE: Madam Hearing Officer, Scott
9 Janoe.

10 I have Mr. Holderman in the room with me, as
11 well.

12 Just for reference, Mr. Holderman will be
13 speaking specifically about concerns with the revised
14 Section 120C.(1), which added the semiannual inspection
15 requirements that were mentioned by Ms. Kuehn. Prior
16 comments by Oxy, including a request for a two-year
17 phase-in for existing sources were already addressed by
18 the agency, and Oxy no longer has comments on that.

19 But the new section added in the
20 September 16th proposal at 120C.(1) will be the focus of
21 his testimony now, and I will move over and allow
22 Mr. Holderman in.

23 HEARING OFFICER ORTH: Thank you.
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DANNY HOLDERMAN

(Relating to Topic Order 31)

having been first duly sworn or affirmed, was
examined and testified as follows:

DIRECT EXAMINATION

BY MR. JANOE:

MR. HOLDERMAN: Okay. Just very briefly --

Q. (BY MR. JANOE) Let me go ahead and ask you
the question, Mr. Holderman.

A. Okay. Sorry.

Q. We can set up the record.

A. All right.

Q. Mr. Holderman, what are -- what are your
concerns with the semiannual inspection requirements at
120C.(1)?

A. Yes. As you said, the September 16th version
added the requirement for unstaffed locations to be
inspected semiannually with one of those inspections
being done during a transfer. We've acknowledged -- or
I think most have acknowledged on here that the
transfers happen at very random and difficult times to
get people out to unstaffed locations to see, and so we
do not always have notification necessary to get out to
all of our sites to be able to inspect these.

The effort that it would take, then, to get

1 out and witness a transfer versus just inspecting the
2 equipment that we keep on location would, in our view,
3 not be the most efficient use of the time to -- to
4 monitor the effectiveness of the -- the trucking
5 companies that are coming out to effect those transfers.

6 So while we've not had any time to prepare a
7 response, we would request that the annual inspection
8 during a transfer be removed and then we look for a
9 better way to effect the -- the inspection that
10 (unintelligible and/or inaudible).

11 MR. JANOE: And we would present Mr. Holderman
12 for cross.

13 HEARING OFFICER ORTH: Thank you, Mr. Janoe.
14 That was terrifically efficient.

15 Let me ask if there are any party or counsel
16 who have questions of Mr. Holderman?

17 No?

18 All right. I think, then -- and as I
19 understand it, we will not be able to hear from Mr. Kim
20 this evening.

21 But let's see if the Board have questions
22 right now of the witnesses in front of us.

23 While I'm doing that, if you're on the
24 platform and have a question as an attendee, please
25 reach out through chat.

1 ELIZABETH BISBEY-KUEHN, BRIAN PALMER,
2 JOHN R. SMITHERMAN, ADAM MEYER and DANNY HOLDERMAN

3 (Relating to Topic Order 31)

4 having been first duly sworn or affirmed, was
5 examined and testified as follows:

6 EXAMINATION

7 BY THE BOARD:

8 HEARING OFFICER ORTH: Madam Chair, would you
9 have questions of the Section 120 witnesses that we have
10 before us?

11 CHAIR SUINA: Thank you, Madam Hearing
12 Officer. I think I just have one for Ms. -- for NMED.

13 So right now, I guess, IPANM still has an
14 outstanding concern about the frequency of inspections
15 for the un- -- is it unstaffed locations? Has there
16 been any further discussion with your -- with NMED on
17 resolving that issue?

18 MS. BISBEY-KUEHN: No, Madam Chair. There has
19 not been any internal discussion around that question.
20 And it was Oxy, I believe, that had that, that raised
21 that issue. So I'm not sure if there was another issue
22 that you were highlighting that IPANM had.

23 CHAIR SUINA: Yeah. Oh, sorry. Sorry. It
24 was Oxy. So I'm looking at my notes. You're right.

25 Is there -- what -- I guess back to that

1 latest version, is there -- can you just re -- again
2 re-elaborate what the concern is regarding -- or what
3 was the reasoning to add in that language? I know there
4 was a couple of iterations.

5 MS. BISBEY-KUEHN: Sure. So let me get to --
6 let me open up our rebuttal testimony on that.

7 So the current requirement is to visually
8 inspect the transfer equipment monthly at staffed
9 locations and semiannually at unstaffed locations. And
10 that was in response to commenters, that it would be --
11 it would be difficult for them to meet the monthly -- a
12 monthly inspection requirement at unstaffed locations,
13 and so we made that adjustment.

14 In addition, we -- we did want to have one --
15 we wanted to have an inspection conducted during an
16 actual transfer operation. So you can check that --
17 those components, pipes, valves, connectors, that are
18 under pressure, you can actually check them for leaks.
19 And I think the best way to do that is during an actual
20 transfer operation.

21 CHAIR SUINA: Thank you for that, Ms. Kuehn.

22 And so really you did make an adjustment in
23 terms of the frequency from monthly to semiannually; is
24 that correct?

25 MS. BISBEY-KUEHN: We did add -- we clarified

1 that it would be monthly at staffed locations and
2 semiannually at unstaffed locations.

3 CHAIR SUINA: Okay. Thank you.

4 That's all for now, Hearing Officer, Madam
5 Hearing Officer.

6 HEARING OFFICER ORTH: Thank you.

7 Vice-Chair Trujillo Davis?

8 VICE-CHAIR TRUJILLO DAVIS: Yes.

9 Mr. Holderman, would it be possible to have a
10 lease op run the inspection at an unstaffed location?

11 MR. HOLDERMAN: That's how you would execute
12 it. It's more of a -- the lease op -- operator will
13 call in a truck when to -- to have them come effect the
14 transfer, and it could be any time in the next two days.
15 And so they're not notified particularly unless we
16 request it for -- for them to -- to announce when
17 they're going to be out there for us to go inspect that
18 inspection.

19 And so that -- that's the concern that we
20 have, and that's why we want to open up the dialogue
21 around it, is the majority of the leaks that happen
22 during transfer tend to happen because of operator
23 error, not because the equipment is leaking. And so if
24 we're going to go to the effort to -- to institute a
25 rule to minimize emissions, it needs to be around a

1 protocol that allows us to more frequently inspect
2 the -- those that are making those connections rather
3 than an arbitrary once a year test that connection
4 environment.

5 We haven't proposed anything yet. Like we
6 said, it was new in the September 16th one, and we've
7 been trying to think of what we would propose. But --
8 but that's our concern in a nutshell, as far as the
9 effectiveness of a protocol. We don't have any
10 disagreement with the need to inspect equipment or the
11 need to capture the vapors. We want to make sure that
12 we're not -- you know, our lease operators that we're
13 going to use, rather than them waiting around for a
14 couple days for somebody to show up, we can more
15 effectively target where we (unintelligible and/or
16 inaudible).

17 VICE-CHAIR TRUJILLO DAVIS: Okay. I think --
18 it sounds like there's definitely room to come to some
19 agreements here. So I --

20 MR. HOLDERMAN: We -- we totally agree. We
21 just haven't opened that conversation.

22 VICE-CHAIR TRUJILLO DAVIS: Okay.

23 I don't have any more questions. Thank you.

24 HEARING OFFICER ORTH: Thank you.

25 Member Cates?

1 MEMBER CATES: Yeah. Just a quick question
2 on -- to Ms. Kuehn, I guess.

3 So when we say semiannual, do we mean twice in
4 a calendar year, or do we -- do we mean once in the
5 first half of a fiscal year? What does that -- what
6 does that mean exactly?

7 MS. BISBEY-KUEHN: Yes. Member Cates, thank
8 you for that question.

9 It means at least twice per calendar year.

10 MEMBER CATES: And so it could be in January
11 and February, it could be -- or it could be in January
12 and December, or it could be in June and --

13 MS. BISBEY-KUEHN: That's correct. We
14 haven't -- we haven't specified a time lapse between the
15 two monitoring events.

16 MEMBER CATES: All right.

17 MS. BISBEY-KUEHN: I would -- I would like to
18 clarify that the requirement to conduct the inspection
19 while the transfer is occurring was in the September 7th
20 version of the rule. That -- so there is -- there is
21 rebuttal testimony from the Department that explains
22 that in our -- in our NMED Rebuttal Exhibit Number 1.

23 HEARING OFFICER ORTH: All right. Thank you.

24 Member Bitzer?

25 Did you say no questions?

1 MEMBER BITZER: I have no questions. Thank
2 you.

3 HEARING OFFICER ORTH: Thank you.
4 Member Garcia?

5 MEMBER GARCIA: Thank you, Madam Hearing
6 Officer.

7 Not really a question. I just want to say I
8 appreciate that items that the industry brings up that
9 haven't been resolved, there's still an opportunity to
10 resolve them before the posthearing submittals come in
11 and possibly a new version of the rule. So I appreciate
12 that there will be more back and forth, and so we don't
13 have to resolve those things today. They will be --
14 there are opportunities to get them resolved.

15 HEARING OFFICER ORTH: Okay. Thank you.
16 Member Honker.

17 MEMBER HONKER: No questions here. Thank you.

18 HEARING OFFICER ORTH: All right. Thank you.

19 Did any of the questioning raise in the minds
20 of counsel a need to do some follow-up? Turn on your
21 screen.

22 Not seeing anyone.

23 All right. Thank you, Section 120 witnesses.
24 Thank you very much.

25 Oh, there's Mr. Colclasure.

1 Hello, Mr. Colclasure.

2 MR. COLCLASURE: Yes, Madam Hearing Officer.

3 I don't have any questions in response to the
4 Board's questions, but I did want to first apologize for
5 the inconvenience that we were not able to locate our
6 witness on this topic and ask if it would be possible
7 for us to call Mr. Kim first thing tomorrow morning, or
8 any time tomorrow.

9 HEARING OFFICER ORTH: Well, so we -- I just
10 responded to another request to speak tomorrow morning
11 immediately after public comment. Ms. Katz reminded me
12 that we said we were going to be hardwired for
13 pneumatics in the morning.

14 Will Mr. Kim be available after the pneumatics
15 discussion, or --

16 MR. COLCLASURE: I believe so, yes, ma'am.

17 HEARING OFFICER ORTH: -- at some other time?

18 All right. Thank you. I made a note, and I
19 will not forget Mr. Kim.

20 Ms. Katz, are we feeling pretty good about
21 where we are this evening?

22 MS. KATZ: I think so, Madam Hearing Officer.
23 I don't believe that there's -- there's good candidates
24 for going forward that have everybody available that
25 would need to be.

1 I see Ms. Gutierrez on the screen. Maybe she
2 has some input to that.

3 HEARING OFFICER ORTH: Ms. Gutierrez?

4 MS. GUTIERREZ: Thank you, Ms. Katz and Madam
5 Hearing Officer.

6 I was just going to suggest maybe we could
7 move through pigging pretty quickly, but it sounds like
8 you may have more information than I do on availability.
9 So I'll let -- I'll defer to you on that.

10 MS. KATZ: I guess we could -- we could
11 probably do it. I -- but I'm not sure NMOGA is --

12 MR. HISER: Our witness isn't on today. So
13 I'd have to try to track her down.

14 We could enter the stipulation on 127.

15 MS. KATZ: Yeah. I was going to say we
16 could -- we could just get 127 done.

17 HEARING OFFICER ORTH: You know what? I just
18 saw Mr. Kim on the platform.

19 Mr. Colclasure, if I see Mr. Kim on the
20 platform, would this be a good time?

21 MR. COLCLASURE: I would just ask, Il,
22 Mr. Kim, if you're available, if you're actually on the
23 platform, will you please chime in.

24 HEARING OFFICER ORTH: Did --

25 MR. KIM: Yeah. This is Il.

1 Can you guys hear me?

2 HEARING OFFICER ORTH: Yes, quite clearly.

3 MR. KIM: Sorry. I was -- came home, and I
4 was doing dinner and heard that they were trying to do
5 all this stuff. So I am -- I have no idea what we've
6 done for about the last hour, and I apologize for that.
7 And --

8 HEARING OFFICER ORTH: So it would be -- I'm
9 sorry. The other parties' witnesses just covered
10 Section 120, which is hydrocarbon liquid transfers.

11 Would you be able to give some brief testimony
12 on hydrocarbon liquid transfers?

13 MR. KIM: Can we wait until tomorrow?

14 HEARING OFFICER ORTH: Yeah. I just can't
15 give you a time exactly tomorrow. It would be after
16 pneumatics.

17 MR. KIM: That -- that's fine. You know,
18 tomorrow I'll be better situated to do that. I'm at my
19 house, and I have a baby daughter in the background
20 screaming at me right now. So --

21 HEARING OFFICER ORTH: All right. Good luck
22 with that.

23 MR. KIM: Appreciate it.

24 HEARING OFFICER ORTH: Yeah. Thank you.

25 MR. COLCLASURE: Thank you, Madam Hearing

1 Officer, for indulging us.

2 HEARING OFFICER ORTH: Thank you,
3 Mr. Colclasure.

4 Let me ask if Ms. Witherspoon -- I think I saw
5 Ms. Witherspoon a little bit ago -- if you're still with
6 us and would like to offer brief statement, either now
7 or later.

8 No? She may have left us. Okay.

9 So we do have some loose ends. I made some
10 notes as to the loose ends.

11 Ms. Katz, I think you were just about to go to
12 some stipulation as to Section 127.

13 MS. KATZ: Yes. I will just call Ms. Kuehn on
14 that, we could just pull it up.

15 MS. BISBEY-KUEHN: Yes. Just give me one --
16 one second here.

17 ELIZABETH BISBEY-KUEHN

18 (Relating to Topic Order 38)

19 having been first duly sworn or affirmed, was
20 examined and testified as follows:

21 DIRECT EXAMINATION

22 BY MS. KATZ:

23 MS. KATZ: And for the Board's information,
24 this is Section 20.2.50.127, the credible evidence
25 provisions. The testimony on this is in NMED

1 Exhibit 32, starting on page 155, and NMED Rebuttal
2 Exhibit 1, page 103.

3 Q. And, Ms. Kuehn, can you please discuss these
4 provisions and the stipulated language that the parties
5 have agreed on.

6 A. Yes. And so this is a unique section at the
7 end of the regulation that outlines -- provides an
8 overview of credible evidence and what information is
9 considered credible by the Department.

10 We worked with NMOGA and Oxy, Clean Air
11 Advocates and EDF to come up with a revised language for
12 this section, and provided the proposed language to all
13 parties, and they've all stipulated to the following
14 changes indicated by the red-line.

15 The title of the section has changed to
16 Prohibited Activity and Credible Evidence.

17 We've struck in entirety Paragraph C, which
18 stated that if credible information provided to the
19 Department by a member of the public indicates that a
20 source is not in compliance, that the source shall be
21 presumed to be in violation of the part unless the owner
22 or operator provides credible evidence to the contrary
23 demonstrating otherwise.

24 And we've made revisions to Paragraph B that
25 if credible evidence or information is obtained by the

1 Department or provided by a third party indicates that a
2 source is not in compliance, that evidence or
3 information may be used by the Department for purposes
4 of establishing whether that -- that person has violated
5 or is in violation of the part.

6 So those -- those edits satisfactorily address
7 the comments that we received on this section.

8 Q. And, Ms. Kuehn, can I just -- let's clarify
9 that the Department -- that the stipulation removes the
10 presumption of a violation based on credible evidence;
11 is that correct?

12 A. That's correct.

13 Q. And it doesn't actually say what credible
14 evidence is, that that's still a determination that will
15 have to be made by the Department, correct?

16 A. Yes.

17 Q. And this allows for the Department to consider
18 information that it obtains or that is provided to it by
19 a third party.

20 A. That's correct.

21 MS. KATZ: Thank you.

22 That's all we have on this provision.

23 HEARING OFFICER ORTH: Thank you very much,
24 Ms. Kuehn and Ms. Katz.

25 Let me ask if there's any other party that

1 would have a question or anything else on this
2 stipulation.

3 I'm not seeing any other screens.

4 Board Members, I'll turn to you.

5 If there's an attendee, please reach out
6 through the chat.

7 EXAMINATION

8 BY THE BOARD:

9 HEARING OFFICER ORTH: Madam Chair, any
10 questions?

11 CHAIR SUINA: Thank you, Madam Hearing
12 Officer. I don't have any questions at this time.

13 HEARING OFFICER ORTH: Thank you.

14 Vice-Chair Trujillo Davis?

15 VICE-CHAIR TRUJILLO DAVIS: Yeah. Just a
16 quick one.

17 I'm just curious if you envision this being
18 set up like a -- like an SPCC type in structure where --
19 just because given the complexity of this rule? So when
20 you would look at compliance, do you -- are you
21 envisioning like assigning like compliance levels to
22 each one of those things, or -- I don't know. I see
23 Ms. Katz like shaking her head, like not real sure what
24 I'm talking about.

25 So like in an SPCC inspection, you go through

1 and they ask you for all these things, right? Like
2 your -- your recordkeeping, your inspections, your
3 monitoring, all this stuff. And then each one of those
4 line items is assigned a certain level of compliance.
5 And so if you fail in one of those, then that -- that
6 enforcement action is levied based on that level of
7 compliance.

8 So I'm just wondering if that's like the
9 structure that you're envisioning long-term, or is it
10 just like an all or nothing kind of setup?

11 MS. BISBEY-KUEHN: Thanks, Member Trujillo
12 Davis.

13 And so when an -- when an inspector goes out,
14 they will be -- they prepopulate a preinspection form
15 that outlines all the terms and conditions that should
16 be complied with, and they'll take -- they'll look --
17 they'll review each term and condition of the -- of the
18 rule and determine if -- based on their inspection of
19 records, their onsite inspection of equipment, whether
20 or not there appears to be evidence of a potential
21 violation.

22 And then they will follow up with a
23 postinspection notification to the owner or operator,
24 identifying the potential violations or potential issues
25 that have been identified. Then the owner or operator

1 has an -- has an opportunity to respond back to the
2 Department and identify any follow-up or additional
3 information that need -- that needs to be provided to
4 the Department in order to vet the potential violation
5 that was discovered.

6 So there's a very -- there's a back and forth
7 process even before determining there's an actual
8 violation of a term or a -- or a condition of the -- of
9 the rule. And each one -- and each term is evaluated on
10 its own, on its own merits.

11 VICE-CHAIR TRUJILLO DAVIS: Okay. Thank you.
12 I appreciate that. That was a really good explanation.

13 HEARING OFFICER ORTH: Thank you.
14 Member Cates?

15 MEMBER CATES: Yeah. No questions here.
16 Thank you.

17 HEARING OFFICER ORTH: Thank you.
18 Member Bitzer?

19 MEMBER BITZER: No questions. Thanks.

20 HEARING OFFICER ORTH: Thank you.

21 Member Garcia?

22 MEMBER GARCIA: No questions. Thank you.

23 HEARING OFFICER ORTH: And Member Honker.

24 MEMBER HONKER: No questions. Thank you.

25 HEARING OFFICER ORTH: All right. Thank you.

1 Any follow-up, Ms. Katz?

2 MS. KATZ: Just one quick thing.

3 REDIRECT EXAMINATION

4 BY MS. KATZ:

5 Q. Ms. Kuehn, does this provision of the rule
6 essentially codify enforcement authority that the
7 Department already has?

8 A. Yes.

9 MS. KATZ: Okay. Thank you.

10 HEARING OFFICER ORTH: All right. Thank you
11 very much, Ms. Kuehn and Ms. Katz.

12 I think we've managed to make some reasonable
13 progress today. We'll begin in the morning with public
14 comment and then hit pneumatics, which promises to be
15 exciting.

16 So thank you, all, very much, and we'll see
17 you tomorrow morning at 9:00.

18 (Proceedings adjourned at 6:28 p.m.)

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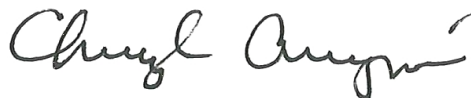
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1 STATE OF NEW MEXICO)
2) ss.
3 COUNTY OF BERNALILLO)
4
5

6 I, CHERYL ARREGUIN, the officer before whom the
7 foregoing proceedings was taken, do hereby certify that
8 I personally recorded the proceedings by machine
9 shorthand; that said transcript is a true record of the
10 proceedings; that I am neither attorney nor counsel for,
11 nor related to or employed by any of the parties to the
12 action in which this proceeding is taken, and that I am
13 not a relative or employee of any attorney or counsel
14 employed by the parties hereto or financially interested
15 in the action.

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