

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 28th day of
September, 2021, this matter came on for hearing before
FELICIA ORTH, Hearing Officer, virtually through Cisco
Webex Meetings video conferencing, commencing at 9:00 a.m.

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2 Exhibit 1. Joint Proposed Amendments to
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4 Exhibit 2. Curriculum Vitae of David McCabe,
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6 Exhibit 3. Direct Testimony of David McCabe,
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8 Exhibit 4. Zero Emission Technologies for Pneumatic
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10 Exhibit 5. Conservation Groups' Initial Economic
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14 Exhibit 7. Cap-On British Columbia Oil and Gas
15 Methane Emissions Field Study (2019) 2105

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20 Exhibit 11. Photograph of blewie line in operation
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22 Exhibit 12. Photographs of blewie line completions
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1 HEARING OFFICER ORTH: Good morning. My name is
2 Felicia Orth, the Hearing Officer, appointed by the New
3 Mexico Environmental Improvement Board to conduct a
4 hearing in EIB 21-27. This is a rulemaking concerning
5 ozone precursor air pollutants. We begin every morning --
6 this is day seven of the hearing. We begin every morning
7 with public comment every day of the hearing at 9 a.m.,
8 1 p.m. and 5 p.m.

9 The best way to have me call on you is to reach
10 out to the Board's Administrator, Pam Jones. Her contact
11 information is on the EIB web page; otherwise, if you're
12 on this platform and did not reach out by email, I'm still
13 happy to take your comment, just reach out in the Chat
14 which is enabled for everyone, or call or text Pam at her
15 number (505) 660-4305. Public comment is taken under oath
16 pursuant to the Board's rule. It's taken by audio rather
17 than video, and is limited to five minutes.

18 I'll call on you in this order. Nate Duckett,
19 Gay Kernan, Harvan Conrad, David Coss and Marla Mead, and
20 again, anyone else who reaches out through Chat. So let
21 me start with Mr. Duckett. Excuse me. Mr. Duckett, can
22 you hear me?

23 MR. DUCKETT: Yes, ma'am.

24 HEARING OFFICER ORTH: Terrific. I can hear you
25 clearly. If you would please spell your name.

1 MR. DUCKETT: Sure. My name is Nate, N-A-T-E; my
2 last name is Duckett, D-U-C-K-E-T-T.

3 HEARING OFFICER ORTH: Thank you very much. And
4 if you would raise your right hand. Do you swear or
5 affirm to tell the truth?

6 MR. DUCKETT: I do.

7 HEARING OFFICER ORTH: Thank you. I'll start
8 your five minutes now.

9 MAYOR NATE DUCKETT,
10 having been first duly sworn or affirmed,
11 gave public comment as follows:

12 PUBLIC COMMENT OF MAYOR NATE DUCKETT

13 MR. DUCKETT: Thank you, Ms. Orth. My name is
14 Nate Duckett, I'm the mayor of Farmington, New Mexico.
15 And I appreciate this opportunity to speak to the Board
16 regarding the methane rules that are being considered. My
17 emphasis as the mayor of this beautiful city in Northwest
18 New Mexico really builds around the economy that has been
19 built by the oil and gas industry.

20 The oil and gas industry has provided
21 opportunities for hundreds of thousands of individuals who
22 have lived in this community to make a quality of life for
23 themselves and their family, providing a future for their
24 children, and has supported communities across the state
25 through the extraction and production of these important

1 natural resources.

2 My concern is any type of additional onerous
3 regulations that would go above and beyond maybe what the
4 feds are requiring, but certainly to the point where these
5 wells that exist in San Juan Basin, which are
6 marginally-produced wells, so they're not -- they're not
7 producing a high amount of natural gas or barrels of oil a
8 day, they are very sensitive to price changes and to costs
9 associated with their operation.

10 My concern is if we see a rule get in place where
11 these stripper wells, as many of them are called here in
12 our area, were to come under a high dollar requirement to
13 institute new technologies, we could see a number of these
14 wells shut down, which could lead to a large job loss in
15 our area. You know, the Northwest corner of the state has
16 been blessed with an abundance of natural resources from
17 natural gas, oil and coal. And what has happened over the
18 last 10 to 15 years is an attack on those industries and
19 we've seen an exodus of individuals from San Juan County.
20 The most recent -- recent census shows we've lot close to
21 8,000 members of our local community.

22 Our local communities area extends beyond the
23 borders of this county. It goes into Southwest Colorado,
24 Southeast Utah, Northeast Arizona, and is an important
25 driver for local economies in all of those areas. So I

1 would just ask the Board to be aware of those concerns.
2 We cannot afford to lose more individuals from our city or
3 county, let alone, the state, as we focus efforts on the
4 energy industry that may -- that may be not conducive to
5 making this an area where we can continue to be
6 competitive and provide high quality jobs, not just direct
7 jobs, but indirect jobs, which are so critical, and allow
8 us a true transition that is not one that is just a
9 jump-off-the-cliff type mentality.

10 So that is my -- that is my statement for the
11 Board. I appreciate your time. I know that they will do
12 their best to take everybody's comments and concerns into
13 it. I just want to make sure that they leave leeway for
14 the industry to drive innovations, spurring new ideas and
15 things that will help -- will help our local economy and
16 address the growing concerns with methane.

17 Also, final note: my apologies. We are looking
18 here in the Northwest corner of the state as being a hub.
19 The federal government is looking for hydrogen hubs, and
20 natural gas is a critical component for the production of
21 hydrogen and we would certainly not want to add any
22 additional costs to that as we do a transition into the
23 hydrogen economy. Thank you.

24 HEARING OFFICER ORTH: Thank you, Mr. Mayor. We
25 will move then to Senator Kernan. Let's see here.

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1 Senator Kernan, I've unmuted you. Can you hear me?

2 SENATOR KERNAN: Yes, I can. Thank you very
3 much.

4 HEARING OFFICER ORTH: Oh, you're coming through
5 nice and clearly. If you would please spell your name for
6 the transcript.

7 SENATOR KERNAN: G-A-Y, K-E-R-N-A-N.

8 HEARING OFFICER ORTH: Thank you. And raise your
9 right hand. Do you swear or affirm to tell the truth?

10 SENATOR KERNAN: Yes.

11 HEARING OFFICER ORTH: Thank you very much. I'll
12 start your five minutes now.

13 SENATOR GAY KERNAN,
14 having been first duly sworn or affirmed,
15 gave public comment as follows:

16 PUBLIC COMMENT OF SENATOR GAY KERNAN

17 SENATOR KERNAN: Good morning. My name is
18 Senator Gay Kernan. I represent Senate District 42, which
19 include Lea, Eddy and Chavez Counties. I've been a member
20 of the New Mexico legislature for 19 years and currently
21 serve on the legislative finance committee. And during
22 the regular session, I serve on the senate education
23 committee and the tax business and transportation
24 committee.

25 I'm a lifelong resident of Hobbs and I have a

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1 deep and abiding interest in the community that I serve.
2 This includes the many men and women who are part of the
3 oil and gas industry in Southeast New Mexico. My family
4 moved to New Mexico in the 1950s, where my father
5 established a rental tool company supporting the
6 activities of the industry.

7 In 1986, upon his death, I had the responsibility
8 of operating his lease, that consisted of five marginal
9 wells. Maintaining the lease was exceptionally
10 challenging for as you may recall, the plight of the oil
11 and gas industry in 1986 was dire. I worked hard to learn
12 as much as possible about the operation of a well, by
13 taking classes at the New Mexico Junior College. It was
14 important to me to maintain the lease and protect my
15 father's investment until I was able to transfer the lease
16 to new ownership.

17 Today, I speak to you with considerable concern
18 for the industry that has provided so much to my
19 community, to the State of New Mexico, and to the country
20 in general, by producing over a million barrels of oil a
21 day to support the many needs that oil and gas provide for
22 our daily use, both as an energy source and a source for
23 the manufacturing of many goods, too numerous to name.

24 I have reviewed a significant amount of
25 information related to this issue, much of which has

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1 already been presented to this Board. What I think I have
2 learned relative to the New Mexico Environment
3 Department's proposed ozone precursor rule, is that it is
4 a methane rule disguised as an ozone rule. This rule is
5 attempting to control both NOx and VOC. The great
6 controls that NMED proposes on VOCs is not justified in
7 reducing ozone emissions. They are costly and somewhat
8 limited in reducing those levels.

9 My question to the Board is, would the rule
10 reduce ozone levels sufficiently to meet the National
11 Ambient Air Quality Standards? Any rule proposed by NMED
12 should consider the technical practicability and economic
13 reasonableness consistent with statutory authority for
14 rulemaking.

15 This brings me to two additional points that I
16 would like to make: First, the determination by the
17 legislative finance committee, that the state stands to
18 lose over 1 billion dollars in revenue should the proposed
19 rule be adopted.

20 Secretary Kenney discounts the study of JVA as
21 being flawed, and in his response to the LFC, cites an
22 economic forecast that New Mexico is expecting to receive
23 close to 1.4 billion dollars in new revenues. In my view,
24 those revenues are dependent only on a strong oil and gas
25 industry. If this rule is adopted as is, the independent

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1 producers, who are my friends, my constituents and my
2 fellow New Mexicans, who have long contributed to the
3 wealth of this state, will be unfairly impacted and many
4 will be forced out of the industry, and the revenue to the
5 state will be reduced at a significant level.

6 My second point is related to the constitutional
7 requirement that all children in the State of New Mexico
8 receive a sufficient education, although we spend close to
9 45 percent of our state revenues on education, we continue
10 to be under the judicial order of the Martinez/Yazzie
11 lawsuit. For those on the Board who have deep
12 appreciation and understanding of our educational system,
13 we cannot adequately provide for the educational needs of
14 our children without the revenue the industry provides. A
15 1 billion dollar loss in revenue will make it impossible
16 to address the requirements of Martinez/Yazzie.

17 I propose to the Environmental Improvement Board
18 that you reconsider the agency's original agreement with
19 industry, to allow once-in-a-lifetime inspection of wells
20 that emit less than 2 tons of pollutants per year. This
21 will allow smaller operators and low-emitting wells to
22 continue production.

23 The small business examination that replaced the
24 original exemption is meaningless. I would also ask the
25 Board to consider whether New Mexico, by creating a

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1 methane rule that sets an industry standard as the most
2 stringent oil and gas regulations across the country, will
3 produce any significant benefit related to emissions
4 nationwide or worldwide. Yet, it will put New Mexico at a
5 disadvantage when looking at the prosperity and quality of
6 life compared to our neighboring states.

7 I thank you very much for allowing me to submit
8 my testimony.

9 HEARING OFFICER ORTH: Thank you, Senator.

10 We move next to Harvan Conrad. Mr. Conrad, can
11 you hear me?

12 MS. CONRAD: Yes, and it's Ms. Conrad. Thank
13 you.

14 HEARING OFFICER ORTH: I'm very sorry. If you
15 would please spell your name for the transcript.

16 MS. CONRAD: Yes, my name is Harvan, H-A-R-V-A-N,
17 last name is Conrad, C-O-N-R-A-D.

18 HEARING OFFICER ORTH: And if you would raise
19 your right hand. Do you swear or affirm to tell the
20 truth?

21 MS. CONRAD: Yes, I do.

22 HEARING OFFICER ORTH: Thank you. I'll start
23 your five minutes now.

24 HARVAN CONRAD,
25 having been first duly sworn or affirmed,

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1 gave public comment as follows:

2 PUBLIC COMMENT OF HARVAN CONRAD

3 MS. CONRAD: Thank you. I would like to preface
4 my comments by stating that I live in Magdalena, New
5 Mexico, having recently retired from 44 years in the oil
6 and gas industry as a quality manager, which includes the
7 fields of mechanical integrity and failure analysis.

8 I am well aware that as in many other places in
9 New Mexico, the oil and gas industry contributes
10 significantly to the release of methane into the
11 atmosphere, which is contributing to climate warming,
12 which is a serious matter that we need to take into
13 account for ourselves and our future generations.

14 I am also well aware as from inside the industry,
15 that there are several comments that this -- this -- these
16 changes would cause a significant impact to the oil and
17 gas industry and would not provide a lot of benefit. But
18 I have read over the years and contributed to over the
19 years, many reports that show otherwise; that working to
20 reduce out-gassing, to stop leaks on the pneumatic and
21 other equipment, not only is not such a severe impact to
22 the oil and gas industry as we might believe, but it also
23 contributes to increasing their profits.

24 They are a hugely profitable industry and I do
25 not see a significant cost impact in making these changes.

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1 In addition, the industry is replete with assets for
2 research and development. They have highly educated
3 engineers and chemists and people that can do the research
4 and find ways to reduce these emissions, and to
5 significantly improve the manufacture of oil and gas for
6 our society and all of the other elements that come from
7 that, without significantly impacting the earth, the
8 climate and our quality of life.

9 And so I believe that these rules are not going
10 to significantly impact them. I've heard many dollar
11 costs, but I think when we hear those dollar costs, we
12 should also take into account the significant dollar
13 profits that these companies make. And I -- I -- when I
14 compare those two, I do not see a significant challenge to
15 the oil and gas industry.

16 And as far as costing jobs and -- and -- and
17 reducing our profits to the state, I think we should take
18 a look at some other states, especially our neighbor to
19 the north, Colorado, who has already implemented rules and
20 they are not seeing a significant challenge to employment
21 or cost of living. So I think that in the end, these
22 rules will benefit us. Climate change is a serious
23 problem that we need to start looking at seriously.

24 The oil and gas industry is well positioned to do
25 research and development into how to continue to provide

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1 us with oil and gas, and all of the elements that they
2 create for our society -- the plastics, the fibers and
3 everything, and do it in a way that does not significantly
4 impact our lives, our climate, and the earth itself. As
5 having worked in the industry for 44 years, I'm well
6 aware, I believe that this is significantly possible,
7 without impacting their bottom line dollar profits in a
8 significant way, and it would be beneficial to all of us.

9 I've also seen, as I said, several reports that
10 show that when they do take these steps, they actually
11 increase their profits because they're capturing elements
12 that they can then process and sell, rather than burning
13 them off or releasing them to the atmosphere.

14 So I would like to speak in favor of these rule
15 changes as an oil and gas industry insider for 44 years, I
16 see it can be benefits to both the population of New
17 Mexico and the industry. And thank you very much.

18 HEARING OFFICER ORTH: Thank you very much,
19 Ms. Conrad.

20 We move now to David Coss.

21 MR. COSS: I'm here.

22 HEARING OFFICER ORTH: Hello. If you would,
23 please spell your name for the record.

24 MR. COSS: Yeah, it's David, D-A-V-I-D, Coss,
25 C-O-S-S.

2012

1 HEARING OFFICER ORTH: All right. If you would
2 raise your right hand. Do you swear or affirm to tell the
3 truth?

4 MR. COSS: I do swear that.

5 HEARING OFFICER ORTH: Thank you so much. I'll
6 start your five minutes now.

7 DAVID COSS,
8 having been first duly sworn, gave public
9 comment as follows:

10 PUBLIC COMMENT OF DAVID COSS

11 MR. COSS: Oh, five minutes. I thought it was
12 just two, but I'll just take a couple. Hi, Ms. Orth, it's
13 good to see you. Thank you for giving me an opportunity
14 to speak this morning. My name's David Coss and I live in
15 Santa Fe, New Mexico, but I do have some statewide
16 experience from working for the land office and the New
17 Mexico Environment Department.

18 I just wanted to speak in favor of these
19 regulations. I -- I am just very pleased that those
20 are -- that these are proposed and being looked at now. I
21 think they're essential to our quality of life in New
22 Mexico. I want to thank Governor Michelle Lujan Grisham
23 and her administration for putting -- for putting this
24 forward and doing this difficult work.

25 You know, I think one of the proudest

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1 achievements of my generation -- actually before my
2 generation, was the Clean Air Act. And I've seen a lot of
3 work at implementation of that in New Mexico over the
4 decades, and I think it's about time we apply that act to
5 the oil and gas industry as well.

6 The other thing I do is I go quail hunting once a
7 year down in Carlsbad. I love the Chihuahuan Desert down
8 there, but I have just seen the impacts -- the flaring at
9 night, the flaring all day long, the leaky gas lines all
10 over the area. Those impacts are personal to me, but I've
11 got to think they're even more personal to the people that
12 live down there. And so I'm in favor of these rules
13 because of the health impacts on our communities in New
14 Mexico, from being an ozone nonattainment day after day,
15 year after year, something that we used to just say we
16 can't do anything about, but here we have the
17 administration saying, actually, we think we can and we've
18 proposed a way, through regulation, to address this issue
19 that affects so many of our -- so many of our New Mexico
20 residents.

21 Finally, I'd just like to thank the Environment
22 Department. You know, I worked there for a long time. I
23 understand how difficult and complex these types of
24 regulations are, so I commend the Department for
25 proceeding with this. And I'm thankful that we're at this

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1 stage in New Mexico finally, where we're going to apply
2 the Clean Air Act. And I am in favor of these regulations
3 and I thank you for this opportunity to give my opinion
4 and thanks to the Environmental Improvement Board for
5 considering all of this. Thank you very much.

6 HEARING OFFICER ORTH: Thank you very much,
7 Mr. Coss.

8 The final speaker I have who requested a slot
9 this morning is Marla Mead. Ms. Mead, can you hear me?

10 MS. MEAD: Yes, I can.

11 HEARING OFFICER ORTH: All right. If you would,
12 please, spell your name for the transcript.

13 MS. MEAD: Marla, M-A-R-L-A, Mead, M-E-A-D.

14 HEARING OFFICER ORTH: Thank you. And raise your
15 right hand. Do you swear or affirm to tell the truth?

16 MS. MEAD: Yes, ma'am.

17 HEARING OFFICER ORTH: Thank you. I'll start
18 your five minutes now.

19 MARLA MEAD,
20 having been first duly sworn or affirmed, gave public
21 comment as follows:

22 PUBLIC COMMENT OF MARLA MEAD

23 MS. MEAD: I am from Silver City. I am a native
24 of Silver City, lived in New Mexico almost all of my life.
25 I've also lived in Socorro and McKinley Counties. I am a

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1 product of the education system in New Mexico, and I know
2 that it is greatly impacted by the amount of funding that
3 is given through the oil and gas industry.

4 My county in itself, although, not directly
5 related to the gas and oil industry has over 1,000 jobs,
6 and considering the way the mining industry also
7 fluctuates, which is what we base a lot of our income on,
8 it's important to have those jobs as stable as possible.

9 My concern is the fact that New Mexico is last in
10 so many areas across the United States. We're 48th, 49th,
11 50th in a lot of the areas, and although money is not the
12 only solution in that area, reduced money can definitely
13 affect the quality of life for both those of us now and
14 our upcoming grandchildren and on further than that.

15 So my concern is definitely -- part of my concern
16 is the funding that affects the schooling and -- and also
17 the Universities that we face, if -- if there is
18 significant cuts in the industry's ability to provide
19 that. It did provide over a third of the state's income
20 last year, and so that is important, I think, to all New
21 Mexicans.

22 One of the questions I had for the Board was, I
23 know that the Environmental Department had done a modeling
24 study on controlling oil and gas emissions, and it came
25 out that it was -- the emissions were negligible to

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1 affecting the ozone. And so I'm going, like, okay, if
2 it's negligible effect, according to your study, why are
3 we putting in place a rule that supposedly will improve
4 the quality of air? Those two don't -- don't seem to fit,
5 to me. So I -- I have a question about the validity of
6 the rule because of that.

7 I do think we need to target pollution. I do
8 think the Clean Air Act is important, but I think we need
9 to target overall pollutants, not just one industry. And
10 it feels to me like this is just one industry and they're
11 focusing on it. Also, having worked in the mining
12 industry, I know that one size doesn't fit all. When I
13 worked there, we had mines that were less than 100 miles
14 apart, and the needs of those particular mines were
15 completely different.

16 And so, I believe that because of the difference
17 in the Permian Basin and the San Juan Basin, and some of
18 the small -- especially the small providers, that it is
19 important to consider the cost to them. Yes, maybe the
20 big producers won't be affected much, but the small
21 producers that do contribute may be gravely affected by
22 that.

23 I would hope that there won't be any duplications
24 of federal laws. I think that's very burdensome, to have
25 laws that are already in effect, be duplicated. I'm

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1 hoping that the regulation will not do that. And I feel
2 that one size fits all does not, like I said before, in
3 the mining industry, one size fits all did not work there
4 and it doesn't -- I don't think it will work within the
5 gas and oil industry. I do believe there needs to be a
6 flexible consideration out there for protecting that, but
7 I do not feel that a strict adherence or strict rule will
8 help the industry across the board.

9 I want to thank you for allowing me to speak
10 today, and I am hoping that you will consider all New
11 Mexicans as you consider this rule. Thank you.

12 HEARING OFFICER ORTH: Thank you very much,
13 Ms. Mead.

14 We have come to the end of the folks who wanted
15 to offer public comment this morning. There are 11 other
16 opportunities: 9, 1 and 5 each day. So at this point we
17 will return to the technical case.

18 And the counsel agreed that today immediately
19 following public comment, we would turn to pneumatics.
20 So, Ms. Katz, I see you on screen.

21 MS. KATZ: Good morning, Madam Hearing Officer,
22 Madam Chair, members of the Board. The Department calls
23 Liz Bisbey-Kuehn and Brian Palmer once again. This --
24 this testimony pertains to Section 20.2.50.122 pneumatic
25 controllers and pumps. The Department's testimony on this

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1 appears in NMED Exhibit 32, beginning on page 122 and NMED
2 Exhibit -- sorry, Rebuttal Exhibit 1, beginning on page
3 82. Ms. Kuehn will need sharing privileges. There she
4 goes.

5 And Ms. Kuehn and Mr. Palmer have already adopted
6 this testimony on the record, and I don't believe there
7 are any errors in it. So we can move forward.

8 ELIZABETH BISBEY-KUEHN AND BRIAN PALMER,
9 having been previously duly sworn or affirmed, were
10 examined and testified as follows:

11 DIRECT EXAMINATION OF ELIZABETH BISBEY-KUEHN
12 AND BRIAN PALMER (Pneumatics)

13 BY MS. KATZ:

14 MS. KATZ: Ms. Kuehn, can you please summarize
15 and discuss the equipment that is subject of this section
16 of the rule?

17 MS. BISBEY-KUEHN: Yes. Good morning, everyone.
18 This morning we'll be talking about pneumatic controllers
19 and pumps in Section 122 of our proposed rule.

20 MS. KATZ: I'm sorry to interrupt, Madam Hearing
21 Officer, Mr. Palmer -- oh, there he is. Sorry, he got on
22 okay.

23 MS. BISBEY-KUEHN: Great. Pneumatic controllers
24 and pumps are process control devices used throughout the
25 oil and gas sector to control the position of valves.

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1 Natural gas-powered pneumatic controllers use natural gas
2 as well as force to operate valves that regulate safety
3 shut downs, position, fluid level, pressure, temperature
4 and flow rate. They also may be powered by compressed
5 air.

6 They are used to control multiple processes,
7 based on a sensed process perimeter, such as a liquid
8 level in a tank or separator. They can also be used as
9 emergency shut-off devices to regulate flow, liquid
10 levels -- or liquid levels or as temperature and pressure
11 regulators. An example is a control liquid level in a
12 separator; when that liquid reaches a certain set point
13 and the separator, based on the setting of a gauge, the
14 associated pneumatic controller then sends a signal to
15 open the control valve between the separator and the tank.

16 This signal would consist of pressurized gas
17 turning the valve from the closed to the open position.
18 And when the level in the separator reaches a low level,
19 that pneumatic controller sends a signal to the control
20 valve to close and to stop flow from the separator to the
21 tank.

22 VOC and methane emissions occur from natural
23 gas-powered controllers when the pressurized gas is
24 directed to the atmosphere after the control action is
25 performed. Pneumatic pumps inject chemicals into the well

2020

1 bore, circulate glycol and move liquids. VOC and methane
2 emissions occur from pneumatic pumps when the pressurized
3 gas used to drive the pumping action is released to the
4 atmosphere after the pumping action. And the quantity of
5 VOC emitted is dependent upon the type of pump employed
6 and the concentration of VOC in the gas stream.

7 Natural gas driven pneumatic controllers and
8 pumps are available in a variety of designs and are
9 characterized by their bleed rate, which is a measure of
10 how much natural gas is used to operate the controller or
11 pump. Continuously bleeding controllers or continuous
12 bleed controllers emit or bleed natural gas on a
13 continuous basis. When the process condition rises or
14 falls above or below that set point, the pneumatic
15 controller responds to return the process to the
16 predetermined set point.

17 Continuous bleed controllers may either be a
18 low-bleed controller, which has a bleed rate or an
19 emission rate less than or equal to 6 standard cubic
20 feet per hour, or a high-bleed controller, which has a
21 bleed rate or emission rate of greater than 6 standard
22 cubic feed per hour. Intermittent controllers do not vent
23 continuously, but instead, release gas only when they open
24 or close a valve or as they adjust gas flow.

25 The bleed rate from these controllers depends on

2021

1 the amount of gas vented per actuation and the frequency
2 of actuation. Zero bleed pneumatic controllers do not
3 bleed natural gas at all. Those are self-contained units
4 that release gas back into the process.

5 MS. KATZ: Ms. Kuehn, can you discuss some of the
6 emission control options for pneumatic controllers and
7 pumps?

8 MS. BISBEY-KUEHN: Yes. There are several ways
9 to reduce emissions from pneumatic controllers, including
10 replacing high-bleed controllers with low bleed or zero
11 bleed models; using instrument error, rather than natural
12 gas to drive the controller; using nongas-driven
13 controllers, such as mechanical or electric controllers.
14 They're also requiring regular maintenance and proper
15 adjustment of pneumatic controllers, can be used to
16 minimize emissions by repairing leaks and optimizing the
17 amount of gas needed to operate the device.

18 And options for reducing emissions from pneumatic
19 pumps include using instrument error rather than natural
20 gas to drive the pumps; also using nongas-driven pumps,
21 such as electric pumps or routing emissions to a control
22 device or process.

23 MS. KATZ: And turning to Mr. Palmer, can you
24 discuss the basis for the proposed requirements for
25 pneumatics and the estimated emissions reductions and

2022

1 costs?

2 MR. PALMER: Yes, I can. The Department's
3 proposal is based on the concepts developed by Colorado,
4 but with some important differences that were intended to
5 simplify the approach. It requires that operators convert
6 a certain percentage of their controllers to be
7 nonemitting controllers through 2030. It has graduated
8 requirements depending on the number of nonemitting
9 controllers that an operator starts with. So those with
10 lower numbers of nonemitting controllers, have a -- have a
11 lower target -- final target.

12 Some differences in between the Department's
13 proposal and Colorado's Regulation 7: The Department's
14 proposal does not exempt low-producing wells as Regulation
15 7 does. Regulation 7 has an exemption for operators who
16 have an average of low-producing wells.

17 NMED -- the Department's proposal is also based
18 on the total controller count, whereas Colorado's Reg. 7
19 is based on production amounts. And there's an important
20 distinction, is that Colorado has for several years, other
21 regulations in place that have already addressed emissions
22 from pneumatics. In particular, to reduce the frequency
23 of malfunctioning pneumatics.

24 The Department's proposal provides similar
25 flexibility as Colorado's Regulation 7. It allows

2023

1 operators to prioritize high-producing production
2 facilities. It includes exceptions for certain temporary
3 controllers or those used in specific circumstances. It
4 allows for emitting controllers for safety and process
5 purposes. It also contains options for complying with the
6 requirements. There's built in to the proposal an
7 off-ramp if owners meet a 75 percent target for
8 nonemitting controllers by January 1st, 2025.

9 And then, also, if after January 1st, 2027, there
10 are still some remaining units that are not cost effective
11 to retrofit, an owner may submit an analysis to the
12 Department of the retrofit costs for the Department's
13 consideration.

14 We estimated the overall emission reduction from
15 the Department's proposal to be 31,347 tons per year of
16 VOC as a result of the rule. These reductions are
17 achieved at an estimated cost effectiveness of \$2,475 per
18 ton of VOC on an overall basis. And the cost
19 effectiveness is based on costs from the U.S. EPA's study
20 called "Lessons learned: Converting gas pneumatic
21 controls to instrument air," and that was in October of
22 2006. That was part of the EPA's Natural Gas STAR
23 Program.

24 MS. KATZ: Thank you, Mr. Palmer.

25 Ms. Kuehn, can you please discuss the definitions

1 from Section 7 of the rule that are pertinent to the
2 pneumatic controller section in Section 122?

3 MS. BISBEY-KUEHN: Yes. The first definition is
4 bleed rate, which I just discussed, which is the rate in
5 which in standard cubic feet per hour, at which gas is
6 continuously vented from pneumatic controllers. There
7 were revisions made to clarify that many different types
8 of gas may be used in a pneumatic controller, and also
9 that bleed rate is more typically referred to those
10 continuous bleed pneumatic controllers.

11 And intermittent controllers don't vent
12 continuously and so are not appropriate to have a
13 specified bleed rate, but have an actuation rate. And
14 their emissions rate is dependent on the actuation rate
15 and the length of actuation.

16 The definition of nonemitting controller was
17 requested, and we agreed to adopt that -- that definition.
18 It clarifies that controlled devices that are routed to a
19 control -- controllers that are routed to a control device
20 can be considered a nonemitting controller for the
21 purposes of this part.

22 We also received a request from the stakeholders
23 to break out the definitions of pneumatic controllers, to
24 distinguish between high bleed, low bleed, and
25 intermittent controllers. I've already discussed the

1 bleed rates or emission rates associated with each one of
2 those types and so I won't read this for you all, but we
3 thought that those were good additions to the regulation,
4 to the extent that they help distinguish between different
5 types of controllers.

6 And it may be ultimately that depending on how --
7 how the Board decides to move forward on this section,
8 that certain definitions may no longer be appropriate if
9 they're not relevant to the section.

10 MS. KATZ: And can you summarize the provisions
11 of the rule, including the emission standards and the
12 revisions that NMED is proposing based on input from the
13 stakeholders?

14 MS. BISBEY-KUEHN: Yes. The Department reviewed
15 extensive comments and proposed revisions to this section
16 in the direct testimony and rebuttal testimony submitted
17 by EDF, CCP, NAVA, NMOGA, IPANM, Oxy, GCA, CDG and Kinder
18 Morgan. Those comments are far too numerous and pervasive
19 to address here today.

20 On a broader level, much of the testimony from
21 certain parties proposes adoption of the regulatory
22 approach to pneumatic controllers adopted in February of
23 2021 by Colorado as part of its Regulation 7.

24 The Department does not believe that the Colorado
25 approach is appropriate for New Mexico, and while there

1 are general statements about the benefits and workability
2 of the Colorado approach, they have not been ascribed or
3 demonstrated how the Department's proposal is unworkable
4 or inappropriate for New Mexico. And nor does that
5 conclusion follow from the comments that have been
6 provided.

7 The Department does not agree with the proposed
8 adoption of -- or with the parties' proposals to adopt the
9 approach taken in Colorado, which regulates pneumatic
10 controllers on the basis of the total historic liquids
11 production, rather than controller counts.

12 As stated by Mr. Palmer, Colorado has an
13 extensive infrastructure and regulatory approach to -- for
14 the pneumatic controllers that has been in place since
15 2009 and it's something that the Department's regulatory
16 approach simply -- simply lacks. And so, the result of
17 those prior regulatory efforts is that New Mexico -- or is
18 that Colorado, through Reg. 7, has already achieved
19 significant reductions in the overall number of high-bleed
20 pneumatics and their associated emissions, and has
21 implemented a robust inspection and monitoring program to
22 oversee the proper operation of those devices.

23 And, therefore, Colorado has already reduced
24 emissions by replacing large numbers of high-bleed
25 pneumatics and reducing emissions from pneumatic

1 controller malfunctions before it established the newer
2 targets for nonemitting controllers based on company-wide
3 production.

4 And the Department's proposal, while premised on
5 a similar but much more straightforward concept, but not
6 used by Colorado, does not have the similar advantage of
7 building regulatory provisions off of emission
8 reductions -- reductions achieved by past regulatory
9 efforts. As a result, the proposed revisions to this
10 section or the proposed provisions of this section will
11 likely achieve higher emission reductions from pneumatic
12 controllers by targeting reductions in the overall number
13 of emitting controllers, rather than by reducing a
14 fraction of controllers represented by a certain
15 percentage of overall production.

16 At the same time, the Department's proposed
17 approach will also address emissions from pneumatic
18 controller malfunctions by establishing monitoring
19 requirements for all pneumatic controllers, to ensure
20 they're functioning properly and emitting only when they
21 should be.

22 We have received opposing comments from -- from
23 the parties. The environmental NGOs initially had agreed
24 to this concept. Since then, they have worked on a
25 different proposal with Oxy that's reflective of a

1 production-based approach. In addition, NMOGA similarly
2 opposed this concept but we've -- we believe now that they
3 are in general support of the Department's concept.

4 Despite all of the different comments that we
5 have received on our concept, the Department has retained
6 kind of its original framework for regulating pneumatics.
7 We think it is a right approach for New Mexico. It works
8 best for the Department. None of the comments that were
9 provided by the other stakeholders have demonstrated why
10 this proposal isn't workable or shouldn't be adopted. So,
11 before you -- and I just wanted to kind of explain all of
12 that initially so that you have some context for
13 evaluating this section of the rule.

14 You'll be receiving different -- different
15 testimony from the other parties on their proposals later
16 on. So before -- before us on the screen are the
17 requirements for pneumatic controllers and pumps. The
18 applicability section, again, identified those units that
19 are subject to the rule. The emissions standards
20 establish the requirements for specific equipment and it
21 requires new pumps and controllers to comply with the
22 requirements of this part of pump startup. It establishes
23 a schedule for existing pneumatic controllers and it
24 requires that existing pneumatic pumps comply with the
25 requirements within three years of the effective date of

1 this part.

2 Table 1 and 2 provide the schedule for complying
3 with a percentage of nonemitting controllers by certain
4 timelines. And I will go into how that calculation is
5 made on the next page.

6 But just to discuss this table in a bit more
7 detail right now, if you are an operator of a well site,
8 tank battery, gathering -- and gathering and boosting
9 station, you first determine what your total historic
10 percentage of nonemitting controllers are, and you then
11 find within that first column what your -- where your
12 percentage falls within those five categories. That
13 percentage then determines how many total required
14 percentage of nonemitting controllers you have to meet by
15 the next three deadlines. And there are staggered
16 additional requirements over those -- those time frames.

17 And so, if you were an owner of a well site and
18 you had 20 percent of your controllers were a nonemitting
19 controller, you would be in that -- that fourth line down,
20 between 20 to 40 percent. Actually, you would be in the
21 configuration first line, so you would be between zero and
22 20 percent. So your next -- your requirement would then
23 be to have a total required percentage of nonemitting
24 controllers by January 1st, 2024.

25 So if you were at 20 percent, you must retrofit

1 emitting controllers to a nonemitting controller 5 percent
2 of your fleet by January 1st, 2024. And then you would
3 need to meet a 65 percent total required percentage of
4 nonemitting controller by January 1st, 2027. And then you
5 would need to meet an 80 percent requirement by January
6 1st, 2030. And I know there will be a lot of questions
7 about how all of this works, so I will be able to answer
8 any other questions as we -- at the conclusion of the
9 PowerPoint.

10 This next slide addresses the standards for
11 non -- for natural gas driven controllers, new pneumatic
12 controllers are required to have --

13 MS. KATZ: Ms. Kuehn. I'm sorry, Ms. Kuehn. Can
14 you maybe just jump back and just mention the Table 2 and
15 just what it -- its distinction from Table 1?

16 MS. BISBEY-KUEHN: Oh, sure. So Table 1 targets
17 well sites, tank batteries and gathering and boosting
18 stations. And Table 2 targets transmission compressor
19 stations and gas processing plants. And they have
20 different sets of required percentages based on their
21 access to line power, primarily.

22 MS. KATZ: Thank you.

23 MS. BISBEY-KUEHN: Paragraph 4 establishes
24 requirements for -- or establishes the emission standards
25 for natural gas-driven pneumatic controllers. 4A requires

1 new pneumatic controllers to have an emission rate of
2 zero. 4B was amended with a -- with language to require
3 that existing pneumatic controllers with access to
4 commercial line power, shall have an emission rate of zero
5 within two years of the effective date of this part.

6 We do -- we did receive a comment that this is
7 problematic and in conflict with the requirements in Table
8 2. And so the Department intends to strike that, that
9 language, and have owners and operators of pneumatic
10 controllers meet the requirement of Table 1 and 2. That
11 is more clear and that was the Department's intent.

12 Paragraph 4C outlines the process by which owners
13 and operators of existing pneumatic controller have to
14 determine what percentages they have to meet. So the
15 first step is by January 1st, 2023, those operators need
16 to determine the total controller count for all
17 controllers at all of the facilities owned by that
18 operator that commenced construction before the effective
19 date of this Part.

20 The total controller count must include all
21 emitting controllers and nonemitting controllers, except
22 that those controllers that are necessary for safety or
23 process purpose that cannot otherwise be met without
24 emitting natural gas, do not need to be included in the
25 total controller count. Those are tracked separately.

1 The operator then has to determine which
2 controllers in the total controller count are nonemitting
3 and sum those -- and designate those as total historic
4 nonemitting controllers. And then they determine the
5 overall percentage by dividing the total historic
6 nonemitting controller count by the total controller count
7 and multiplying by 100.

8 And again, based on that percentage that's
9 calculated in the step above, the owner/operator then
10 determines which provisions of Tables 1 or 2 apply, and
11 the replacement schedule that they must meet. This
12 section contains an additional provision that if they --
13 if an owner or operator meets at least a 75 percent total
14 nonemitting controller count by January 1st, 2025, that
15 the owner/operator has -- is not subject to the
16 requirements of Tables 1 and 2. We think that's an
17 important flexibility that streamlines the retrofit of
18 emitting -- of high-emitting controllers.

19 In addition, this regulation allows that if after
20 January 1st, 2027, an owner or operator's remaining
21 pneumatic controllers are not cost effective to retrofit,
22 that they may submit a cost analysis of retrofitting those
23 remaining units to the Department, and the Department
24 shall review those to determine whether or not those --
25 those units qualify for a waiver from meeting the

1 additional retrofit requirements.

2 Paragraph D authorized the use of emitting
3 pneumatic controllers when it's based on functional needs,
4 including response time, safety and positive actuation.
5 And an owner or operator that's seeking to maintain the
6 operation of that unit must prepare and justify the need
7 for that safety or process purpose prior to the
8 installation of a new unit, or the retrofit of an existing
9 unit. And we were requiring that that justification be
10 also certified by a qualified professional or in-house
11 engineer.

12 There are also two additional paragraphs that we
13 have include based on feedback from stakeholders that --
14 one is that temporary pneumatic controllers that are used
15 for well abandonment activities or prior to the end of
16 flow back, and controllers used in emergency shut-down
17 devices are not subject to this section. We've also added
18 a paragraph that temporary reportable controllers that are
19 on site for less than 90 days are not subject to this
20 section.

21 Paragraph 5 sets the standards for pneumatic
22 pumps, pneumatic diaphragm pumps. Paragraph 5A requires
23 that new pneumatic diaphragm pumps located at gas plants
24 have an emission rate of zero and that new pneumatic
25 diaphragm pumps located at those facilities listed, that

1 have access to commercial line power, have an emissions
2 rate of zero.

3 And we have added a clarifying paragraph for
4 existing pneumatic diaphragm pumps located at well sites,
5 tank batteries, gathering and boosting stations, gas
6 plants and transmission compressor stations with access to
7 commercial line power have an emission rate of zero within
8 two years of the effective date of this Part.

9 And the requirement that owners and operators of
10 pumps located at those facilities listed without access to
11 commercial line power, shall reduce VOC emissions from the
12 pumps by 95 percent if it is technically feasible to route
13 those to a control device. And if the -- if not
14 technically -- if there is a control device available, but
15 it is -- that unit is unable to achieve a 95 percent
16 emission reduction and it is not technically feasible to
17 route the pump to a fuel cell or process, that the
18 owner-operator shall still route the pump emissions to the
19 control device, and that must occur within two days of the
20 effective date -- two years of the effective date of this
21 Part. Paragraph 6, which requires the installation or the
22 use of an equipment monitoring tag has been struck.

23 And now we'll get to the general monitoring
24 requirements which are in paragraph C. The first
25 paragraph just states clearly that pneumatic controllers

1 and pumps that don't use natural gas or other hydrocarbon
2 gas as a mode or source are not subject to the
3 requirements of this subsection.

4 And paragraph 2 requires owners and operators of
5 a natural gas-driven pneumatic controller subject to the
6 deadlines in the tables -- Table 1 and 2 shall monitor the
7 compliance status of each pneumatic controller. Paragraph
8 3 requires that the owner or operator conduct a monthly
9 AVO -- audio, visual, olfactory, or OGI inspection, and
10 shall also inspect the pneumatic controller and perform
11 necessary maintenance, and to maintain the unit in
12 accordance with manufacturer's specifications to ensure
13 VOC emissions are minimized.

14 For the paragraph 4, requires the owner and
15 operator to -- to monitor all of these elements, including
16 the controller and an ID number, the type of controller,
17 whether it's continuous or intermittent, and then the --
18 either the bleed rate or the emission rate of each
19 controller.

20 Paragraph 5 establishes a requirement to inspect
21 diaphragm pumps also on a monthly basis and to conduct an
22 AVO or OGI inspection and also perform necessary
23 maintenance to ensure that VOC emissions are minimized.

24 We have added a paragraph 6 to the -- under the
25 monitoring requirements. This requires pneumatic

1 controllers to comply with the LDAR requirements of
2 paragraph 3 of Subsection C of 116. Those -- those
3 fugitive leak detention and repair requirements will be
4 discussed in extensive detail tomorrow. In essence, it
5 requires the use of an OGI infrared camera or other type
6 of technology to search for leaks when the unit is in
7 actuating, to -- to determine whether or not the
8 intermittent controller is malfunctioning. Again, that
9 type of controller shall only -- should only be emitting
10 when it's actuating, and so this type of leak detection
11 survey will help ensure that those units are operating as
12 intended and not malfunctioning and resulting in increased
13 emissions.

14 Paragraph 7 requires the owner or operator to
15 date and time stamp any monitoring event. And it looks
16 like we have a numbering error here, so we'll need to
17 update that number of that last requirement to update that
18 to a new paragraph 8.

19 The recordkeeping requirements, again, are
20 straightforward. They're recording the information
21 that's -- that's required to be monitored. The first
22 paragraph clears -- clearly states that the controllers
23 and pumps that are not subject to the recordkeeping
24 requirements -- I'm sorry. Nonemitting controllers and
25 pumps are not subject to the recordkeeping requirements of

1 this part.

2 Paragraph 2 requires owner/operators to maintain
3 the record of the total controller count for all affected
4 facilities, and the total control account must include all
5 emitting and nonemitting controllers. Paragraph 3
6 requires the owners and operators to maintain a record of
7 the total controller count of the total count of natural
8 gas-driven pneumatic controllers necessary for a process
9 or safety purpose.

10 Paragraph 4 details the schedule and the
11 compliance deadlines for each pneumatic controller. This
12 ensures that the owner -- this requires the owner/operator
13 to develop the schedule and the compliance timelines for
14 each subject controller. The paragraph 5 identifies the
15 type of records that must be kept for each inspection of
16 the unit and information on the controller type and
17 emission rate, any maintenance -- and any maintenance
18 activity associated with that controller.

19 Paragraph 6 identifies the record that must be
20 kept for pneumatic controllers that have a bleed rate
21 greater than 6 standard cubic feet per hour. Then,
22 paragraph 7 are the recordkeeping requirements for
23 pneumatic pumps. Those include natural gas -- a record of
24 those pumps that are in operation for less than 90 days, a
25 record of the control device being used to achieve at

1 least a 95 percent emission reduction and the records of
2 the engineering assessment certification by the qualified
3 professional or in-house engineer.

4 And we received no other -- no other comments on
5 this -- this section.

6 MS. KATZ: Thank you, Ms. Kuehn. I believe
7 that's all for the Department's presentation of its
8 summary of this section.

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

11 Ms. Katz, as I understand it, this is one of the
12 two remaining topics where we will return to
13 cross-examination by other parties and also Board
14 questioning of each panel. Okay. Before we return to the
15 new system we had for the smaller parts.

16 All right. So, please, if you are a party or
17 counsel and you have questions of the Department panel,
18 turn on your camera. I'm not seeing anyone. In that case
19 I will turn to the Board --

20 Oh, I see Mr. Hiser. Mr. Hiser?

21 MR. HISER: Thank you, Madam Hearing Officer. We
22 have a few questions, I think, on some details to
23 understand the implementation approach that's recommended
24 by the Department.

25 CROSS-EXAMINATION OF ELIZABETH BISBEY-KUEHN

1 AND BRIAN PALMER (Pneumatics)

2 BY MR. HISER:

3 MR. HISER: Thank you, Ms. Kuehn and Mr. Palmer
4 for a very concise explanation of a very complex proposal.
5 We appreciate it. Ms. Kuehn, you stated in your direct or
6 your summary that industry could retrofit or reduce
7 emissions by using a low-bleed device, but you actually
8 would mean that we would have to switch to a nonemitting
9 device to fully comply with the requirements of your
10 proposal; is that correct?

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

12 MR. HISER: Okay. And then, is it the
13 Department's intent to allow like kind replacement of
14 existing controllers, rather than treating them as a new
15 controller? If we have to replace one, that we don't have
16 an inadvertent or unplanned conversion of a facility?

17 MS. BISBEY-KUEHN: That is correct.

18 MR. HISER: And then in proposed Section
19 20.2.50.122B.4(d,) and I don't know if you may want to put
20 that up on the screen just so you have it to look at it
21 and the Board as well. I have a couple of questions which
22 are sort of down in the weeds and I'd appreciate that. I
23 apologize for that.

24 And I'm not yet seeing the screen.

25 MS. BISBEY-KUEHN: One second.

1 MR. HISER: Okay. Take your time.

2 Yes, there you were. So I guess I had a couple
3 of questions on that. This provision starts off by
4 talking about a pneumatic controller with a bleed rate
5 greater than 6 standard cubicle feet is permitted when the
6 owner/operator makes a certain demonstration in the first
7 sentence. And then in the second sentence, you simply say
8 an owner/operator that seeks to maintain operation of an
9 emitting pneumatic controller must prepare and document
10 the justification for the safety and process purpose.

11 In your discussion, it seemed a little bit
12 unclear whether this demonstration and professional
13 engineer or an in-house engineer certification applied to
14 all devices that we were trying to maintain, or just those
15 over 6 standard cubic feet, or how exactly it interplayed
16 with the requirements.

17 MS. BISBEY-KUEHN: Yeah, so this -- this
18 language, we intended to require a justification for
19 continuing to operate an emitting controller -- an
20 existing controller that initially was for emitting
21 controllers with an emission rate greater than 6 standard
22 cubic feet per hour, but it makes more sense to require
23 the demonstration for units that are emitting above zero.
24 And so, we will have -- we will need to make some
25 adjustments to this -- this paragraph to make that clear.

1 So the requirements should read: A pneumatic
2 controller with a bleed rate greater than zero is
3 permitted when the owner or operator has demonstrated that
4 it is required based on functional needs, including
5 response time, safety and positive actuation. And then we
6 will need to make an adjustment that the owner/operator
7 that seeks to maintain operation of an emitting
8 controller -- I actually think that language is clear as
9 is, and may not need to be revised.

10 MR. HISER: Okay. And so, I guess the next
11 question that comes up, is that this is a phase-out
12 proposal. Some controllers are going to be subject to the
13 phase-out, some will still be allowed to be existing under
14 the Department's proposal. The intent of this provision
15 is only to reach those that the operator is trying to take
16 out because it's being used for a -- as a response time
17 safety or positive actuation, correct, and not any
18 controller that's being retained under the phase-out
19 schedule?

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

21 MR. HISER: Okay. And then -- and I'm sorry to
22 keep hammering on this, but I want to understand. What's
23 the time frame within which we need to make that
24 determination? Because this appears to imply immediately,
25 but would it only apply as we find a controller that meets

1 that requirement and that we would otherwise be phasing
2 out at a facility, or do we need to try to, before this
3 rule becomes effective, identify every controller that we
4 think meets this criteria before the effective date?

5 MS. BISBEY-KUEHN: So, ideally, they would be
6 identified, along with a list of the total controller
7 count by January 1st, 2023.

8 MR. HISER: Okay. So your intent was -- is to
9 use that January 2023 -- January 1, 2023, as sort of the
10 date to complete a number of these requirements?

11 MS. BISBEY-KUEHN: Yes.

12 MR. HISER: And is that true of a number of
13 the -- a number of the monitoring provisions, I think in
14 Section C, have sort of a similar issue to them, where
15 they're just stated as the positive monitoring obligation,
16 and it appears they start as of the date of the effective
17 date. Was it your intent to wrap all of those in
18 immediately or only some of those requirements consistent
19 with maybe looking at that January 2023 date for
20 identification?

21 And this was something that struck me as I was
22 listening to your explanation. I'm sorry, we hadn't
23 raised it before.

24 MS. BISBEY-KUEHN: No. No, that's a good point.
25 And so, the monitoring requirements typically are in

1 effect when the emission standard requirements are in
2 effect. But in this case, you know, I don't think it
3 makes sense to require to have delayed monitoring, you
4 know, for those units that aren't going to be covered
5 until 2027 or 2030. And so we'll have to -- we'll have to
6 look at that, but my initial reaction is that these
7 monitoring requirements, if it's not clear in the LDAR
8 section -- which I'll need to check -- I'll need to check
9 on that -- that these monitoring requirements come into
10 effect by January 1st, 2023 as well.

11 MR. HISER: Okay. We appreciate the
12 consideration of that, and just making sure that things
13 sort of line up in a logical way so we can roll the
14 program out in an organized fashion. Thank you for your
15 discussion. I really appreciate it.

16 And then in the 75 percent revision, which I
17 believe is found just up above this on the slide right
18 before, where the Department has proposed what I'll call
19 sort of an early adopter provision in B.4. (c)(5,) that if
20 the owner-operator meets at least 75 percent total
21 nonemitting controllers by January 1, 2025; there are two
22 questions on that. First is, is this a different count in
23 some way than the count that's being done for Tables 1 and
24 2, or is it just meant to be the sum total of the
25 controllers that are in Table 1 and 2? We're just

1 trying -- the wording is a little bit different and we're
2 trying to understand exactly if we're looking at a
3 different universe a little bit than in the other ones.

4 MS. BISBEY-KUEHN: I'm sorry. Can you repeat
5 your question?

6 MR. HISER: So is the -- is the count for (c)(5)
7 meant just to be the count of the total historic emitting
8 controllers or is it meant to be total -- total
9 controllers, both nonemitting and historically emitted?

10 MS. BISBEY-KUEHN: It's meant to be both.

11 MR. HISER: Okay.

12 MS. BISBEY-KUEHN: The total nonemitting
13 controllers, yeah.

14 MR. HISER: Okay. And then the question that has
15 come up and which we hoped through testimony would
16 resolve, but it didn't quite clear it up for us is, is
17 this -- is the January 1st, 2025 date and the "by" in
18 front of that, meant to mean by that date and before, or
19 does it mean as of that date only? And the reason it
20 makes a difference is because of how the -- this provision
21 would interact with Table 1.

22 In other words, so if I have a facility that's
23 at, say, 75 percent as of the effective date, does that
24 qualify for this exemption in (c)(5) immediately, or does
25 it still need to make the first level of emissions

1 reductions required by 2024 in the Table 1? We're just
2 trying to understand whether it's 75 percent and you're
3 complete under this provision, or if we would have to go
4 to 80 percent and stay at 80 percent thereafter?

5 MS. BISBEY-KUEHN: This is for owners and
6 operators that are meeting -- no, if you have a 75 percent
7 total nonemitting controller today, you don't
8 automatically qualify for this exemption. You do need to
9 still go through the process and determine what your total
10 percentage amount is, and then meet those, at least that
11 first set of requirements, to add an additional percentage
12 of nonemitting controllers to your fleet.

13 And then, if you have at that point, met at least
14 75 percent, you would have met the requirements of the --
15 of the rule.

16 MR. HISER: Okay. So as the Department's looking
17 at this, if I -- if the 75 percent is determined as of
18 that date, and it determines your requirements from that
19 date going forward, but it doesn't change the requirements
20 in Table 1 as it relates to the '24 -- 2024 time frame?

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

22 MR. HISER: Okay. We just wanted to make sure we
23 understood the Department's intent for that.

24 I believe those were the primary questions that I
25 had mostly to help us understand the intent behind your

1 proposal. Thank you very much, Ms. Kuehn, Mr. Palmer, for
2 your explanation of this complex proposal.

3 HEARING OFFICER ORTH: Thank you, Mr. Hiser. Any
4 other parties with questions of the Department panel,
5 please turn on your screen.

6 Not seeing anyone, we'll turn to the Board for
7 their questions. While I'm doing that, if you're an
8 attendee on the platform with a question, please reach out
9 through Chat.

10 EXAMINATION BY THE BOARD OF ELIZABETH BISBEY-KUEHN

11 AND BRIAN PALMER (Pneumatics)

12 HEARING OFFICER ORTH: Madam Chair, do you have
13 questions?

14 CHAIRPERSON SUINA: Good morning, Madam Hearing
15 Officer. I don't have any questions at this time.

16 HEARING OFFICER ORTH: Thank you. Vice-Chair
17 Trujillo-Davis?

18 VICE-CHAIR TRUJILLO-DAVIS: Good morning. I
19 don't have any questions at this time either.

20 HEARING OFFICER ORTH: All right. Thank you.
21 Member Cates?

22 BOARD MEMBER CATES: Thank you. No questions
23 here.

24 HEARING OFFICER ORTH: Thank you. Member Bitzer?

25 BOARD MEMBER BITZER: A couple of quickies if I

1 might. This is probably a no-brainer, but what's
2 instrument air? Is that nitrogen, oxygen, outside air, or
3 is there something different about it?

4 MS. BISBEY-KUEHN: No --
5 Go ahead, Brian.

6 MR. PALMER: Instrument air just refers to
7 compressed air that has been -- that has been dried to
8 remove any moisture from it.

9 BOARD MEMBER BITZER: And then --

10 MR. PALMER: It's compressed fresh air.

11 BOARD MEMBER BITZER: And this one is probably
12 for the Environment Department. The proposed rule gives
13 you some discretion in terms of waivers down the line.
14 Would your decision to grant those waivers or not be based
15 on how we're doing overall in terms of hitting and
16 retaining attainment? If we're -- if we're in dire
17 straits, then you're less likely to grant those waivers
18 than if we're doing well and not -- and meeting the Good
19 Neighbor rule and all of that? Is that going to be part
20 of the criteria for deciding whether to grant those
21 waivers?

22 MS. BISBEY-KUEHN: No, Member Bitzer, it will be
23 simply an economic analysis on the cost of retrofitting
24 that challenging site.

25 BOARD MEMBER BITZER: Okay. That's all I have,

1 Madam Hearing Officer.

2 HEARING OFFICER ORTH: All right. Thank you.

3 Member Garcia?

4 BOARD MEMBER GARCIA: Yes, Madam Hearing Officer,
5 I do have a couple of questions. Similar to Member
6 Bitzer's question, I kind of was focusing on the provision
7 in -- and you could put up that slide if you wanted to,
8 Ms. Kuehn, the same one you had up for Mr. Hiser. Only
9 it's one more -- it's B.4(c)vi, where there is a provision
10 for a waiver. I see that the company can provide a cost
11 effective analysis. Is this something that has been in
12 rules before or is this a new thing for this particular
13 subpart?

14 MS. BISBEY-KUEHN: Thank you, Member Garcia. The
15 Department has exercised its discretion to authorize this
16 type of waiver process in a very, very limited manner.
17 And it's really in only those very, very specific
18 situations where we think it's appropriate. And so you'll
19 see we've offered this type of concept within the
20 alternative emissions standard, within the engines. And
21 we've identified it here, and those are really the only
22 places where they -- where they exist in the rule -- in
23 this rule.

24 And Colorado's regulations do contain a similar
25 type of provision.

1 BOARD MEMBER GARCIA: That was going to be my
2 next question, whether this idea came from Colorado. So
3 for this particular provision under vi, it says, If, after
4 January 2027, the remaining replacement of pneumatic
5 controllers is not cost effective, then they get a waiver.
6 Is that -- is that forever? Is that they just don't have
7 to do it as long as that analysis -- you agree with the
8 analysis?

9 MS. BISBEY-KUEHN: It would be -- so our concept
10 allows flexibility to the owner and operators to retrofit
11 those units first at the cost effective -- at facilities
12 where the retrofits are cost effective. And so, they will
13 be able to prioritize those cost effective retrofits
14 initially and ongoing. And depending on an operator's
15 unique set of circumstances, there may be some sites where
16 it is just simply not -- not cost effective to make these
17 retrofits.

18 The waiver would be in effect -- would be
19 effective permanently, but, you know, it's -- we think
20 that this deadline is -- is appropriate because it
21 achieves -- you know, it does achieve significant amounts
22 of retrofits for those cost effective controllers
23 initially. And so, it provides, kind of, an appropriate
24 off-ramp for some of the these sites where it really is
25 simply not effective to make these kind of retrofits

1 happen. And so, I hope that answers your question.

2 BOARD MEMBER GARCIA: Yes, it does. Thank you.

3 And, finally, if there's disagreement -- they provide a
4 cost analysis and you decide it's not adequate reason to
5 delay or not do it, do they have an appeal ability? What
6 would happen if there's disagreement?

7 MS. BISBEY-KUEHN: This is an action by the
8 Department and so that, I think that action is appealable
9 to the Department -- to a Department secretary.

10 BOARD MEMBER GARCIA: Okay. Okay. That's all I
11 have. Thank you very much.

12 HEARING OFFICER ORTH: Thank you. Member Honker?

13 BOARD MEMBER HONKER: Yeah, just one question for
14 Ms. Kuehn, I guess. Apologies if you mentioned this and I
15 missed it. But do you know where we're starting on this,
16 in terms of what the current percentage of nonemitting
17 controllers is industry-wide in the state?

18 MS. BISBEY-KUEHN: I'll refer to Mr. Palmer, he
19 may have some data to share on that. We do not have a
20 great inventory of pneumatic controllers. Much of our
21 data was relied upon by the greenhouse gas reporting
22 program, and the CT -- the control techniques guidelines
23 put out by EPA.

24 And Brian can add to that.

25 MR. PALMER: Yeah, that's actually a great

1 question. And in our cost analysis, we assumed 20 percent
2 were nonemitting. All I can say, my first response might
3 be that, you know, industry members might be able to
4 provide a better answer than I can, but we used 20 percent
5 as a starting point for the cost analysis.

6 BOARD MEMBER HONKER: Okay. All right. Thanks
7 very much. That's all I have.

8 HEARING OFFICER ORTH: All right. Thank you.
9 Ms. Katz, will there be any follow-up.

10 MS. KATZ: I guess I'll just do one question for
11 Ms. Kuehn to clear up her response to Member Garcia's
12 question.

13 REDIRECT EXAMINATION OF ELIZABETH BISBEY-KUEHN
14 BY MS. KATZ: (Pneumatics)

15 Q. Would the waiver -- the decision by the
16 Department not to grant a waiver be considered a final
17 agency action that would be -- by the Department that
18 would be appealable to the Court of Appeals under the Air
19 Quality Control Act?

20 A. Yes.

21 MS. KATZ: Okay. That's all.

22 HEARING OFFICER ORTH: All right. Thank you.
23 Thank you, Ms. Katz, Ms. Kuehn, Mr. Palmer.

24 As I understand it from a text, by agreement of
25 counsel, we will be turning to Mr. McCabe because of his

1 schedule.

2 Ms. Fox? Oh, I see Mr. McCabe on the screen.

3 Looking for Ms. Fox or Mr. Baake.

4 MR. BAAKE: It's me. Hold on. My video doesn't
5 want to work.

6 MR. McCABE: While Mr. Baake is turning on his
7 video, I just wanted to take a moment to thank everyone
8 for their flexibility in allowing me to testify now and
9 work things into my schedule.

10 HEARING OFFICER ORTH: All right. And while he's
11 getting on, if you would spell your name for the
12 transcript, please?

13 MR. McCABE: Yes, ma'am. David, D-A-V-I-D.
14 McCabe, M-C-C-A-B-E.

15 HEARING OFFICER ORTH: Thank you. Raise your
16 right hand. Do you swear or affirm to tell the truth?

17 MR. McCABE: Yes, ma'am.

18 HEARING OFFICER ORTH: Thank you. Let me just
19 say, Mr. Baake, if your video is not working, we -- I
20 believe we could hear you pretty clearly.

21 MR. BAAKE: All right. It was working this
22 morning in a different platform, and I think that's the
23 problem, is that -- let me try -- I'm just trying again on
24 my laptop. And if this doesn't work, we'll just proceed
25 with the audio.

1 HEARING OFFICER ORTH: All right. We'll wait a
2 moment.

3 MR. BAAKE: I just tried on my laptop and I think
4 I need to be added as a presenter.

5 HEARING OFFICER ORTH: Oh, okay. I'm looking for
6 you. There you are.

7 MR. BAAKE: Fantastic.

8 HEARING OFFICER ORTH: Any time you're ready.

9 MR. BAAKE: Okay. So thank you again for
10 accommodating --

11 MR. McCABE: Madam Hearing Officer?

12 HEARING OFFICER ORTH: Hold on. Mr. McCabe?

13 MR. McCABE: I just realized I need to be able to
14 share.

15 HEARING OFFICER ORTH: All right. I'll do that
16 right now.

17 MR. BAAKE: So thank you again everyone for
18 accommodating Dr. McCabe's schedule. And we have the
19 sharing capability?

20 MR. McCABE: No, not that I can see. Oh, I
21 have -- Mr. Baake, I think you're going to have to do it.
22 It's not letting me.

23 MR. BAAKE: Okay. Can I have the sharing
24 ability, Madam Hearing Officer?

25 MR. McCABE: It's dumping me into -- oh, wait, I

1 see how to do it. You know, I can do it. Wait.

2 MR. BAAKE: Do you want me to do it, David?

3 MR. McCABE: Yeah, I can't -- it won't let me
4 turn it on.

5 MR. BAAKE: Okay.

6 MR. NYKIEL: Madam Hearing Officer?

7 HEARING OFFICER ORTH: Mr. Nykiel?

8 MR. NYKIEL: I struggled with this myself and
9 just one recommendation, I don't mean to delay things, but
10 sometimes the newer Webex platform that we're using
11 requires the person to change the preferences on their
12 computer and then restart the program, and that seemed to
13 work for me. So just a word of advice.

14 HEARING OFFICER ORTH: Thank you. That's
15 helpful, Mr. Nykiel.

16 Mr. Baake, I've transferred it back to you.

17 MR. BAAKE: Okay. Maybe this would be a good
18 time for a five-minute break while we try to figure this
19 out. I apologize for our technical incompetence here.

20 HEARING OFFICER ORTH: Let's take ten minutes and
21 come back at 10:35.

22 MR. BAAKE: Thank you, Madam Hearing Officer.

23 MR. McCABE: Thank you.

24 (Recess taken from 10:26 a.m. to 10:35 a.m.)

25 HEARING OFFICER ORTH: Let's come back from the

1 break, please. All right. We're back after a short
2 break. Mr. Baake -- and let's see, I believe, Mr. McCabe.

3 MR. BAAKE: Dr. McCabe. Dr. McCabe, are you
4 here?

5 HEARING OFFICER ORTH: I'm very sorry,
6 Dr. McCabe.

7 MR. BAAKE: No problem. And I believe Ms. Fox
8 will be doing the slides for us.

9 HEARING OFFICER ORTH: All right. Oh, I see
10 Mr. McCabe needs to be made a panelist again. So sorry.

11 MR. BAAKE: So, thank you, Madam Hearing Officer.
12 We will be offering a -- starting off and offering a
13 fairly detailed summary of our written direct and our
14 rebuttal and then we would propose to move straight into
15 surrebuttal, given Dr. McCabe's availability constraints.
16 And then offer him up for questions, if that's -- if
17 that's agreeable

18 HEARING OFFICER ORTH: It makes sense to me.
19 Mr. Baake, by the way, you're a little quiet. I don't
20 know if there's a way for you to just get a little louder.

21 MR. BAAKE: I'll talk louder and try to move in a
22 little bit.

23 HEARING OFFICER ORTH: Thank you.

24 DAVID McCABE, Ph.D.,
25 having been first duly sworn or affirmed, was examined

1 and testified as follows:

2 DIRECT EXAMINATION OF DAVID McCABE, Ph.D.,

3 BY MR. BAAKE:

4 Q. All right. Dr. McCabe, could you please state
5 your full name for the record?

6 A. David McCabe.

7 Q. And Dr. McCabe, what is your educational
8 background?

9 A. I have a B.A. in chemistry from University of
10 Chicago and a Ph.D. in physical chemistry from the
11 University of Colorado.

12 Q. And can you please describe your work background?

13 A. I am an atmospheric scientist with the Clean Air
14 Task Force. I have 11 years of experience studying
15 emissions controls for the oil and gas sector. I have
16 designed several studies on emissions of air pollutants
17 from oil and gas facilities. And I am a co-author on a
18 number of peer-reviewed publications describing those
19 studies and their findings.

20 I have provided expert advice on technical
21 comments submitted on oil and gas emission controls and
22 waste prevention measures proposed by the U.S.
23 Environmental Protection Agency, the Bureau of Land
24 Management, the States of California, Pennsylvania and
25 Colorado, and internationally in Mexico and Canada.

1 In New Mexico, I presented to the Methane
2 Advisory Panel in 2019 and also testified before the Oil
3 Conservation Commission earlier this year regarding the
4 waste prevention rule. And my CV is attached as Clean Air
5 Advocates Exhibit No. 2.

6 Q. Thank you, Dr. McCabe. Can you please summarize
7 the opinions you will give in your testimony today?

8 A. Sure. I will explain what pneumatic devices are,
9 why these devices emit air pollution and why it is so
10 important to replace these outdated devices with
11 nonemitting alternatives. I will review NMED's proposed
12 regulation, and explain that although we very much agree
13 with the Department's goal of transitioning to zero
14 emission controllers, the schedule that the Department has
15 proposed is far too slow.

16 This is particularly clear in comparison to the
17 schedule that was recently adopted in Colorado, with
18 unanimous support of industry. I will then explain why
19 the Board should adopt the joint proposal negotiated by
20 Clean Air Advocates, EDF, Center for Civic Policy, NAVA
21 Education Project, and Oxy, and which is also supported by
22 the National Park Service.

23 This proposal is very similar to the rule adopted
24 in Colorado, although it is somewhat less ambitious. I
25 will then address the cost of retrofitting polluting

1 pneumatic devices. I will explain that NMED's analysis
2 shows that retrofitting pneumatic -- polluting pneumatics
3 is a very cost effective way to reduce ozone forming
4 emissions, and if anything, NMED overestimated costs. It
5 is important to understand that switching to zero emission
6 controllers increases operator's revenues, because they
7 are able to sell gas that would otherwise be wasted.

8 Zero emission controllers also have lower
9 maintenance costs than polluting pneumatic controllers.
10 NMED did not account for these savings in its analysis,
11 but even so, they found that their program was cost
12 effective. Our joint proposal with Oxy should have the
13 same total costs as NMED's proposals since we are simply
14 asking for the retrofits to occur more quickly.

15 Q. Thank you, Dr. McCabe. Have you filed direct and
16 rebuttal testimony on behalf of Clean Air Advocates in
17 this matter, which can be found at Exhibits 3 and 23;
18 respectfully; is that correct?

19 A. Yes.

20 Q. Is that testimony accurate and do you adopt it
21 today?

22 A. It is accurate to the best of my knowledge and I
23 adopt both sets of testimony.

24 Q. Thank you. Dr. McCabe, we've heard a little bit
25 earlier, but could you give us a little background about

1 what pneumatic controllers are and why they cause air
2 pollution?

3 A. So pneumatic controllers are devices used
4 throughout the oil and gas industry to automate and
5 control certain processes. They work by using pressurized
6 gas to open or close a mechanical device, such as a valve,
7 in response to a change in a condition such as liquid
8 level or temperature.

9 Historically, most operators have used natural
10 gas to operate their pneumatic devices. When this is
11 done, natural gas is emitted directly into the atmosphere
12 as part of the normal operation of a controller. Of
13 course, the constituents of these natural gas emissions
14 include methane, ozone forming volatile organic compounds
15 and hazardous air pollutants.

16 Since pneumatic controllers are designed to emit
17 natural gas continuously -- I'm sorry. Some pneumatic
18 controllers are designed to emit natural gas continuously,
19 while others are designed to emit only when they're
20 activated. However, these devices often malfunction,
21 causing them to emit greater quantities of pollution than
22 they are designed to emit.

23 In my written testimony, I reviewed numerous
24 studies that have shown malfunctioning controllers are
25 pervasive in the field.

1 Q. And Dr. McCabe, what do we know about the extent
2 of emissions from pneumatic controllers at oil and gas
3 facilities?

4 A. Given the extent to which these devices
5 malfunction and emit more than they are designed to emit,
6 it is very difficult to precisely quantify emissions from
7 these devices. However, based on our analysis of data
8 collected from the Permian and San Juan Basins in EPA's
9 Greenhouse Gas Reporting Program, we estimate that there
10 are over 118,000 pneumatic controllers in New Mexico that
11 collectively emit about 108,000 metric tons of methane per
12 year and about 30,000 metric tons per year of VOC.

13 This is a very important source of methane and
14 VOC. For example, NMOGA estimated that the pneumatics
15 released over 60 percent of the reported methane emissions
16 from oil and gas production in New Mexico for 2017. Other
17 sources of emissions, in particular, super-emitters are
18 missing from reported -- those reported methane emissions.
19 So we don't think that that 60 percent figure is precise,
20 but it gives us an idea of the great importance of
21 pneumatic -- of pneumatic emissions.

22 Q. Thank you, Dr. McCabe.

23 Can pneumatic controllers that emit methane and
24 VOCs be replaced with controllers that do not emit any air
25 pollution at all?

1 A. Yes, they can. Several technologies are
2 available that can entirely eliminate emissions from
3 gas-driven pneumatic controllers. These technologies are
4 cost effective at new and existing sites with and without
5 electricity available.

6 These options were mapped out in a report that we
7 published several years ago, which we have submitted as
8 our Exhibit No. 4. One option that operators have is to
9 use compressed air instead of pressurized natural gas to
10 operate controllers. These compressed air systems are
11 often referred to as instrument air systems, as we
12 discussed a little bit earlier, where instrument is sort
13 of a synonym for a controller.

14 And they have been used -- these compressed air
15 systems have been in use at oil and gas sites for years.
16 Recently, several systems for utilizing solar power to
17 compress air on well pads with no other available
18 electrical power have come to the market.

19 A second approach is to use electric controllers,
20 avoiding the use of pneumatic operation altogether.
21 Electric controllers suitable for solar power battery
22 systems have been developed for the upstream oil and gas
23 industry. As discussed in the New Mexico Methane Advisory
24 Panel report, solar-powered controllers are technically
25 and economically feasible alternatives to emitting

1 controllers. They have been proven in production regions
2 in Alberta, for example, which is a much, much harsher
3 location for utilization of solar than New Mexico.

4 In short, there are numerous zero emission
5 alternatives to gas-driven controllers, and operators are
6 using them in hundreds of sites in the U.S. and Canada.
7 As we explained in a report back in 2016, zero emission
8 solutions are available today and are cost effective to
9 implement in nearly every situation.

10 Q. In general, is retrofitting natural gas-driven
11 pneumatic controllers with zero emission alternatives a
12 cost effective option for reducing emissions?

13 A. Yes, it is. When operators switch to zero
14 emission controllers, they're able to capture and sell gas
15 that would otherwise be wasted and they also reduce
16 maintenance costs. For these reasons and other reasons,
17 retrofitting pneumatic devices is a highly cost effective
18 way to reduce air pollution.

19 Q. And we heard early today a little bit about
20 Colorado's program. Could you describe a little bit, the
21 program Colorado has for retrofitting polluting pneumatic
22 controllers?

23 A. Yes. Earlier this year, Colorado's Air Quality
24 Control Commission adopted regulations that require
25 operators to retrofit their facilities to eliminate

1 venting from a substantial portion of their controllers
2 over a two-year period. These regulations were the
3 product of extensive negotiations between industry,
4 environment organizations, local governments and
5 Colorado's Department of Public Health and Environment.
6 They were unanimously adopted by the commission without
7 any objections from any of the parties. I participated in
8 the negotiations that crafted these regulations.

9 Q. Dr. McCabe, let me stop you there and see if we
10 can get our slide up.

11 MR. BAAKE: Tannis, are you there? Slide two.

12 Q. (BY MR. BAAKE) Okay. Please continue.

13 A. Yeah. And so I'll start off by talking about
14 compressor stations. And this is actually specific to
15 gathering compressor stations. For gathering compressor
16 stations, these regulations require operators to look at
17 all of the controllers they use and determine what
18 percentages of them are already nonemitting.

19 The operator must then retrofit a certain
20 percentage -- a certain additional percentage of its
21 controllers to make them nonemitting, as shown in this
22 table. Operators that start with a lower percentage of
23 nonemitting controllers must -- must retrofit more
24 controllers in each period than operators that start with
25 a higher percentage, but every operator must perform some

1 retrofits.

2 For example, if all of an operator's controllers
3 are emitting, so it has no nonemitting controllers, it
4 would be in the bottom row of this table, and, therefore,
5 it must retrofit 45 percent of its controllers by May
6 2023, which you can see in the last columns. If an
7 operator starts between 20 and 40 percent nonemitting, it
8 would be in that second from the last row. And in that
9 case it must retrofit an additional 40 percent of its
10 controllers by May 2023, again, in the last column.

11 Also for each cohort, there's a maximum required
12 percentage for each target year. This provision is in the
13 program so that operators that start near the top of one
14 cohort, are not required to pass operators that are in the
15 bottom of the next higher cohort, which wouldn't be
16 sensible.

17 For wellhead sites, the program is similar,
18 except that operators are required to retrofit entire
19 facilities, and the percentage is based on the operator's
20 total liquids production, which is liquid hydrocarbons
21 plus produced water.

22 So, the next slide please. For example, an
23 operator that currently produces ten percent of its total
24 liquids at well sites that have fully converted to zero
25 emissions controllers -- so that would be in the bottom

1 row again -- must convert well sites representing an
2 additional 40 percent of its liquids production by May
3 2023. Again, that's in the last column. And all the
4 other percentages are also shown in this table, from the
5 Colorado rule.

6 Q. And Dr. McCabe, what is NMED's current proposal
7 with respect to requiring operators to retrofit these
8 pneumatic controllers?

9 A. Well, first, it cites with commercial line and
10 electrical power. NMED requires that the pneumatic
11 controller have an emissions rate of zero. Operators at
12 these sites must convert any emitting controller to
13 instrument air, electric controls and actuators where they
14 can capture emissions from controllers, or otherwise
15 prevent emissions.

16 And I -- I understand based on the testimony this
17 morning, that NME -- NMED intends for these retrofits to
18 happen over two years. Second, and most important, NMED
19 requires operators at sites without commercial line and
20 power to convert a portion of their fleet of controllers
21 to nonemitting; i.e., air-driven or electric.

22 Operators are required to convert controllers
23 according to two schedules in the proposal: One schedule
24 applies to production facilities and one to gathering
25 compressor stations. Both schedules require operators to

1 increase portions of their fleets by three deadlines; as
2 shown this morning, January 1st of 2024, 2027 and 2030.
3 And then, for both schedules, the portion of controllers
4 that operators are required to convert depends on the
5 portion of the operator's controllers that are already
6 nonemitting.

7 Q. Thank you, Dr. McCabe.

8 And how does NMED's approach compare to
9 Colorado's?

10 A. So Colorado's rules and the NMED proposal both
11 require operators to comply with the schedule for
12 replacing controllers. The specific requirements for an
13 operator depend on the fraction of the operator's valve
14 controllers that are already nonemitting, with the
15 operator's assigned to one of five cohorts, determined by
16 that fashion. So those are -- those are -- that overall
17 structure is very similar.

18 The critical difference is that NMED's proposal
19 is much, much slower than the approach adopted unanimously
20 and with industry support in Colorado. This is clearly
21 shown in this slide, which compares the near term
22 requirements under the Colorado rule and under NMED's
23 proposal for gathering compressor stations. For example,
24 an operator with no nonemitting controllers would be in
25 the bottom row again.

1 And under the Colorado rule, they would have to
2 convert 45 percent of their controllers by May 1st, 2023,
3 which is shown in that left-hand column for Colorado.
4 Under NMED's proposal, those operators would only have to
5 convert 25 percent of their controllers by January 1st,
6 2024. An operator with 15 percent nonemitting controllers
7 today would be in that same bottom row cohort. So under
8 the Colorado rule, they would also have to convert an
9 additional 45 percent of their controllers that -- by
10 2023, but New Mexico would only require them to convert an
11 additional 10 percent of their controllers by January of
12 2024. That's because they're in that bottom cohort, so
13 they only need to get to 25 percent under the New Mexico
14 rule, and they're already at 15 percent, so they just have
15 to add 10 percent.

16 And finally, just one more example; an operator
17 with 25 percent nonemitting controllers now would have to
18 convert an additional 40 percent by May of 2023 in
19 Colorado, but only an additional 20 percent to get to the
20 45 percent threshold under the New Mexico proposal.
21 Clearly, the NME -- NMED proposal is much weaker for
22 initial years and would only require operators to catch up
23 to Colorado 2023 requirements by 2027.

24 Each additional year of delay means thousands of
25 additional tons of VOC and tens of thousands of additional

1 tons of methane will be emitted. The environmental and
2 public health impact of that pollution, unfortunately,
3 aren't reversible.

4 A second difference that I'll mention is that --
5 I want to emphasize this just briefly; that Colorado
6 requires operators to increase their fraction of
7 nonemitting controllers by 6 percent, those cross-ups in
8 that table, while NMED requires operators to increase
9 their fraction to a fixed percentage. This difference
10 makes NMED's proposal both less efficient and less fair
11 than Colorado.

12 Finally, we've already discussed the difference
13 between the structure based on controller count versus
14 liquids production. The key difference really is that New
15 Mexico's rule is just much slower than Colorado.

16 Q. Thank you, Dr. McCabe.

17 So would the joint proposal developed by Clean
18 Air Advocates and Oxy make NMED's regulation more similar
19 to what Colorado has adopted?

20 A. Yes, it would. The agreement will result in a
21 more rapid transition to zero emission controllers for
22 well pads than the NMED proposal; although, it will still
23 be slower than what is required in Colorado. The
24 agreement will also ensure that this phase-out occurs in a
25 more efficient and fair way.

1 For example, under this -- the joint proposal
2 with Oxy, a producer that currently produces 10 percent of
3 its liquids at sites that it converted to zero emission
4 controllers, so it's again in the bottom row, would have
5 to convert 35 percent in the joint proposal column by
6 December 2023.

7 In Colorado, such an operator would need to
8 convert an additional 40 percent and, of course, their due
9 date is eight months earlier. So our proposal gives
10 operators more time than they have in Colorado, but it is
11 an improvement on NMED's proposal; although I do note that
12 the instruction is based on liquids rather than controller
13 account for production.

14 And just once more, I want to note that this
15 proposal is supported by Clean Air Advocates, EDF, the
16 Center for Civic Policy, NAVA Education Project, along
17 with Oxy, a major producer, and the National Park Service.

18 Q. Thank you so much, Dr. McCabe.

19 Now I'm shifting gears a little bit. I want to
20 ask about LDAR or leak detection and repair. I understand
21 that Clean Air Advocates and Oxy and EDF have also agreed
22 to require operators to include pneumatic devices in their
23 leak detection and repair program and that NMED has
24 proposed to adopt this proposal. Why is this so
25 important?

1 A. As I explained in my written testimony and noted
2 above, much of the pollution we observe from pneumatic
3 devices is due to malfunctions. The best way to limit
4 emissions associated with pneumatic controllers is the
5 retrofit to nonemitting designs, but all proposals on the
6 table will leave tens of thousands of gas-driven
7 controllers operating in New Mexico for years.

8 Inspecting these devices to find and repair
9 malfunctions is a critical step that can reduce emissions
10 from devices that haven't yet been retrofitted. So, yes,
11 these devices should be included in each operator's LDAR
12 program.

13 This is something that Colorado has required in
14 the nonattainment area since 2018, and it extended it to
15 the rest of the state in 2020. So, yes, this is an
16 important step to reduce emissions from malfunctioning
17 controllers.

18 Q. Now, let's talk a little bit about the cost of
19 the various proposals. Did NMED estimate the cost of its
20 draft provision?

21 A. Yes. NMED estimated the cost per ton of VOC
22 reduced under its pneumatics proposal. For wellhead and
23 tank battery sites, it estimated a cost of \$2,745 per ton
24 of VOC reduced. For gathering and boosting stations, the
25 cost -- the cost was \$2,596 per ton. These are reasonable

1 costs.

2 Q. And is NMED's methodology for estimating these
3 costs reasonable?

4 A. NMED did use a reasonable approach to estimated
5 costs -- to estimate costs, but it overestimated the net
6 costs of pneumatic controller retrofits for several
7 reasons. First, NMED did not consider the increased
8 revenue that operators receive by selling gas that would
9 otherwise vent.

10 Second, NMED did not consider the maintenance
11 savings that operators realize after switching to electric
12 controllers or instrument air compressors. These savings
13 can be significant since constituents of natural gas,
14 especially raw gas used at production and gathering sites,
15 can be chemically incompatible with components of the
16 controller, and droplets of liquid that condense in
17 components using raw natural gas can interfere with
18 operation of the controllers.

19 There are additional specific reasons that NMED
20 overestimated the cost of retrofitting sites that are
21 discussed in my written testimony. If these corrections
22 were made, the analysis would show that the retrofit is
23 even more cost effective than NMED's analysis suggested.

24 Q. And how would the changes that Clean Air
25 Advocates and Oxy propose for the retrofit provision

1 change the costs of the -- of the provision?

2 A. So the changes that we propose for the pneumatic
3 controller retrofit provision simply accelerate the
4 transition already required by NMED's proposal. The
5 required pace of retrofits under the program would still
6 be quite reasonable and somewhat slower than that required
7 in Colorado.

8 This accelerated schedule would, therefore, not
9 increase overall costs in a significant way; at most, it
10 would require operators and owners to incur some of these
11 costs sooner than they otherwise might, but it would --
12 will also increase cumulative environmental benefits and
13 ensure that those benefits are reached sooner. So,
14 therefore, the changes we propose won't materially change
15 the overall cost effectiveness of the program.

16 Q. And Dr. McCabe, you provided extensive rebuttal
17 to NMOGA's cost analysis. Can you briefly summarize it?

18 A. Definitely. NMOGA's Consultant Bauer made a
19 variety of erroneous assumptions that lead it to
20 overestimate equipment and installation costs. Most
21 importantly, Bauer uses an emissions factor for
22 intermittent bleed controllers that have been plausibly
23 low for New Mexico. It also ignores all of the way that
24 the NMED overestimated costs, including the failure to
25 factor in the value of the gas that can be sold if it is

1 not vented.

2 And finally, Bauer greatly overestimated the cost
3 of equipment in installations. One particularly notable
4 problem with Bauer's cost estimate for instrument air
5 systems is that it was based on air compression equipment
6 that is sized to provide a far, far higher volume of
7 compressed air to the pneumatic controllers at a site than
8 those pneumatic controllers would need based on Bauer's
9 claims about emissions from those controllers.

10 Q. Thank you, Dr. McCabe.

11 I want to ask you about a particular proposal
12 that NMOGA has set forth to create an exemption from the
13 pneumatics retrofit program. Specifically, NMOGA proposes
14 to exempt operators that produce less than 15 barrels of
15 oil equivalent per well per day from the retrofit program.
16 Do you agree with this proposal?

17 A. No, I do not. Although Colorado has an exemption
18 that is similar to the one that NMOGA proposes, it would
19 not be appropriate to adopt this exemption in New Mexico.

20 First, NMOGA is proposing to add this exemption
21 to a proposal that is already considerably weaker than the
22 Colorado rule. Since the NMED proposal is weaker, it is
23 easier to comply with and reduces emissions less than the
24 Colorado rule.

25 Even if the Board adopts the changes, we jointly

1 propose with Oxy, the rule will still be less stringent
2 than the Colorado rule. In this context it would be
3 inappropriate to simply add in the exemption from the
4 Colorado rule. Second, the firms that qualify for the
5 exemption from the Colorado retrofit requirement for
6 operators of low-producing wells are limited in size.

7 In New Mexico, much larger firms would qualify
8 for the exemption that NMOGA proposes. For example,
9 NMOGA's exemption would apply to Hilcorp Energy Company,
10 which operates over 11,000 wells in Col -- in New Mexico.
11 Excuse me. Hilcorp generates hundreds of millions of
12 dollars in revenue every year. They can certainly afford
13 to replace polluting pneumatic devices at these sites.

14 According to our analysis, the largest firm
15 qualifying for the exemption in Colorado has about a fifth
16 of the wells that Hilcorp produces, and it produces about
17 40 percent less hydrocarbons per well than Hilcorp
18 produces from its wells.

19 Finally, the exemption would be much more
20 damaging in New Mexico than it is in Colorado because a
21 larger appropriation of New Mexico wells are owned by
22 operators that would qualify for the exemption that NMOGA
23 proposes. Our analysis shows that 187 operators in
24 Colorado who collectively operate about 15,000 wells would
25 qualify for the exemption.

1 In contrast, about 312 operators in New Mexico
2 would qualify, meaning that over 32,000 wells could be
3 exempt from the proposal. That is more than half -- 57
4 percent -- of the oil and gas wells that were operating in
5 New Mexico in 2019. So NMOGA's proposal would create an
6 exemption that would prevent well over half of the
7 benefits of the rule.

8 In summary, the exemption NMOGA proposes would
9 exempt twice as many wells as would be -- as are exempted
10 by the Colorado rule and would exempt much larger
11 operators. It is not appropriate for New Mexico and the
12 Board should not adopt it.

13 Q. Thank you, Dr. McCabe.

14 And just one more question before we turn to the
15 surrebuttal. I want to ask you about Kinder Morgan's
16 emissions. Why do Clean Air Advocates oppose Kinder
17 Morgan's proposal to exclude a transmission compressor
18 station from the pneumatics division?

19 A. So it's particularly feasible to retrofit
20 pneumatic controllers at transmission compressor stations
21 because these stations are typically large and have access
22 to electric power. Indeed, NMED's analysis indicates that
23 all transmission compressor stations in this state have
24 access to electric power.

25 As I've explained in my written testimony, access

1 to electric power makes it especially easy to retrofit to
2 nonpolluting controllers. Kinder Morgan did not introduce
3 any evidence of transmissions stations that have access to
4 elec -- that did not have access to electric power. To
5 the contrary, their expert, Leslie Nolting testified that
6 the company has commercial power at its compressor
7 stations and that it has emergency engines to sustain
8 essential systems in the event commercial power is lost.

9 Given that it is straightforward to convert
10 nonemitting -- to nonemitting controllers at these
11 facilities, performing these retrofits will reduce
12 significant amounts of VOC and methane pollution. These
13 facilities should be required to perform these retrofits.

14 As I explained in my written testimony, based on
15 precedent from Colorado for gas processing plants, which
16 are also large sites with electrical power available, six
17 months is sufficient time to implement these retrofits.
18 Kinder Morgan doesn't dispute that it is technically
19 feasible to retrofit transmission compressor stations, nor
20 does it argue that the costs are too high. Its argument
21 is based on the fact that the natural gas being moved
22 through the transmission sector has a lower portion of
23 VOCs than the gas farther upstream.

24 But we need to be clear: transmission compressor
25 stations are still a significant source of VOC and

1 retrofitting problematic polluting pneumatic devices is a
2 logical and straightforward way to reduce these emissions.
3 And, of course, these devices also emit significant
4 amounts of methane. While it is not the specific focus of
5 this rulemaking, reducing methane is a critical cobenefit
6 of this rule. Including transmission compressor stations
7 in the retrofit program is just common sense.

8 So, in summary, these facilities shouldn't be
9 exempted from this straightforward feasible requirement
10 just because their VOC emissions are more diluted with
11 methane.

12 Q. Thank you, Dr. McCabe.

13 MR. BAAKE: And Madam Hearing Officer, we will
14 now do our surrebuttal.

15 Q. (BY MR. BAAKE) Dr. McCabe, did you review the
16 rebuttal testimony of Adam Meyer filed by NMOGA?

17 A. Yes, I did.

18 Q. Can you summarize what he had to say?

19 A. Yes. Mr. Meyer asserts that there are economic
20 hurdles associated with transitioning to zero emission
21 controllers that I did not fully consider and that NMED
22 did not consider. Examples of the economic challenges
23 that Mr. Meyer's cites, include supply change issues and
24 personnel issues. Mr. Meyer faults my analysis for not
25 taking into account the COVID-19 pandemic, which he

1 asserts will contribute to supply chain complications.

2 He asserts that many operators will need to hire
3 third-party engineers to perform electrical upgrades and
4 speculates that there may be a shortage of available
5 engineering firms -- excuse me -- if the rollout of the
6 rules is too short. He also argues that accelerating the
7 schedule for transitioning to zero emissions controllers
8 as we propose, could cost more because vendors typically
9 have expedited fees.

10 Based on these concerns, Mr. Meyer argues it is
11 not feasible to convert pneumatic devices at transmission
12 compressor stations within six months. He doesn't,
13 however, specifically discuss the schedule for the
14 retrofit provisions for well pads in our proposal.
15 Mr. Meyer also asserts that there are technical hurdles
16 that exist at many sites that do not have access to
17 electric power. Among other things, he suggests that
18 using solar panels to power electric controllers may not
19 guarantee proper operation or safe operation. He states
20 that if a valve requires a quick reaction time, for
21 example, if it must actuate in 3 seconds or less, it could
22 require a large print, which a solar-powered system may
23 not be able to provide.

24 He also notes that it may be a challenge to
25 design a facility that has 3-day autonomy, which I

1 understand to mean a facility that can operate for three
2 days under conditions where the solar panels are unable to
3 generate electricity.

4 Q. So let's start by talking about the economic
5 concerns. First of all, is there any precedent for
6 requiring operators to transition to zero emission
7 pneumatics in a year or less?

8 A. Yes, there is. As I explained in my direct
9 testimony, Colorado adopted a rule in December of 2017,
10 that gave gas processing plants in the Front Range
11 nonattainment area six months to convert all of their
12 pneumatic controllers to nonemitting technology.

13 Q. Are you aware of any operators that were not able
14 to complete both retrofits within the required six months?

15 A. No.

16 Q. What about the production sector; is there any
17 preface for a schedule like the one that we have jointly
18 proposed with Oxy?

19 A. Yes. As I have explained, the rule Colorado
20 adopted earlier this year, which represented a consensus
21 proposal of industry, governmental and environmental
22 stakeholders, represents a more rapid transition than the
23 one we had proposed with Oxy.

24 Q. Did any operator oppose the Colorado proposal on
25 the basis of supply chain or personnel issues or claim

1 that it would be technically infeasible?

2 A. No, there was no option to the proposal.

3 Q. Did Mr. Meyer explain why he thinks it would not
4 be possible to implement a proposal in New Mexico that is
5 slightly weaker than the proposal that industry agreed to
6 in Colorado?

7 A. No. I -- I did not see any discussion of the
8 Colorado rule in that testimony.

9 Q. Now, Mr. Meyer argues that the COVID-19 pandemic
10 has caused supply chain challenges that make it difficult
11 to predict how quickly operators will be able to acquire
12 the technology they need to transfer to zero emission
13 devices.

14 Did the pandemic exist when Colorado adopted its
15 comprehensive retrofit program in February of 2021?

16 A. Certainly. Operators had been dealings with
17 COVID-19 for almost a year when the Colorado rule was
18 adopted.

19 Q. And did any operator suggest that the pandemic
20 would make it impossible to comply with that -- that
21 program?

22 A. No. No party objected to the Colorado rule,
23 which as we've stated, is more stringent than the proposal
24 we have jointly put forth here with Oxy.

25 Q. And in your direct testimony, which we reviewed

1 earlier, you set forth several reasons why you believe
2 NMED overestimated the costs of retrofitting pneumatic
3 devices. Can you just quickly remind us why you believe
4 that that was an overestimate?

5 A. Yes. We listed at least four reasons in our
6 written direct testimony. First, NMED fails to account
7 for the increased revenue operators obtain when they
8 retrofit to zero emission controllers and are able to sell
9 the gas that they would otherwise vent.

10 Second, NMED fails to account for maintenance
11 savings that operators realize when they convert. Third,
12 NMED assumes that all sites without electricity will use
13 instrument air systems, when it will often be more cost
14 effective to use electric controllers at certain sites.
15 And last, or fourth, NMED implicitly assumes that
16 operators will conduct several partial retrofits at each
17 sites, instead of retrofitting all of the controllers at a
18 site at the same time, just given the structure of the
19 cost calculation.

20 Q. So Mr. Meyer stated in his rebuttal that he
21 disagreed with you, that NMED's estimate was too high.
22 Did he address any of these specific reasons that you just
23 laid out?

24 A. No. To my knowledge, he never addressed the
25 increased revenue argument, the maintenance savings

1 argument, the ability to use electric controllers instead
2 of instrument air systems, or the ability to retrofit
3 sites one at a time instead of this partial retrofit that
4 NMED implicitly models.

5 Q. Thank you, Dr. McCabe.

6 I have -- we have two more questions, for those
7 keeping score at home. Do you have any response to
8 Mr. Meyer's assertion that solar power is not viable for
9 controllers that must activate quickly?

10 A. Yes. Electric controllers systems powered with
11 solar have been in service for years at Northern Alberta
12 production sites which are far, far more challenging for
13 solar power than New Mexico locations for several reasons:
14 Having to do with sunshine and snow cover and battery --
15 battery performance in extreme cold.

16 These systems have been proven at a variety of
17 production sites, including newer, higher production
18 sites, sites where large valves must quickly actuate.
19 Additionally, it is important to note that this is
20 possible to retrofit controllers even at sites that do not
21 have access to the grid, by using a solar system to
22 compress air. This compressed air can then be used to
23 activate the controller, which can allay operator concerns
24 about rapid actuation.

25 Important point is that there are zero emission

1 options available for virtually every type of controller
2 at virtually every facility. So there really is not
3 technical reason we can't be converting the lion's share
4 of controllers in the field. That is why industry was
5 able to sign on to the Colorado rule adopted earlier this
6 year.

7 Q. And finally, Dr. McCabe, Mr. Meyer stated that he
8 was not able to find anything in your direct testimony to
9 support your assertion that thousands of additional tons
10 of VOCs and tens of thousands of additional tons of
11 methane will be emitted if the retrofit program is
12 unnecessarily delayed. Can you provide the support for
13 that assertion?

14 A. Certainly. In my direct testimony at pages 7 and
15 8, and earlier in my oral testimony today, I explained
16 that there are about 118,000 pneumatic controllers in New
17 Mexico, and that we estimate that they collectively emit
18 about 108,000 metric tons of methane and 30,000 metric
19 tons of VOC per year.

20 Each additional year you wait to retrofit means
21 an additional years of emissions. Under our proposal,
22 less than 10 percent of the controllers in the state would
23 be emitting after 2027. Under NMED's proposal, some
24 operators might have 35 percent of their controllers still
25 emitting in 2027. They wouldn't catch up to our target

1 until at least 2030. So that's a significant number of
2 controllers continuing to emit for three years, which
3 would certainly be expected to result in the tens of
4 thousands of tons -- in thousands of tons of VOCs and tens
5 of thousands of tons of methane that could be otherwise
6 avoided.

7 Q. Thank you, Dr. McCabe. With that, we will open
8 it up for, I suppose, cross-examination and then Board
9 questions.

10 HEARING OFFICER ORTH: Thank you very much,
11 Dr. McCabe and Mr. Baake. Please, if you are a party
12 representative, turn on your screen for cross-examination.

13 Mr. de Saillan, I see you on screen.

14 MR. DE SAILLAN: Thank you, Madam Hearing
15 Officer.

16 CROSS-EXAMINATION OF DAVID MCCABE, Ph.D.

17 BY MR. DE SAILLAN:

18 Q. Good afternoon -- or good morning, Mr. Baake and
19 Dr. McCabe. Excuse me. My name is Charles de Saillan and
20 I am an attorney representing the New Mexico Environmental
21 Law Center.

22 HEARING OFFICER ORTH: Mr. De Saillan? I'm
23 sorry.

24 Q. I just have a -- (unintelligible.)

25 HEARING OFFICER ORTH: Mr. de Saillan, I'm sorry.

1 You're breaking up quite a bit. I'm wondering if it would
2 help to turn off your video. I'm sorry.

3 MR. DE SAILLAN: I apologize, Madam Hearing
4 Officer. I will do that.

5 Q. (BY MR. DE SAILLAN) Again, good morning,
6 Dr. McCabe. My name is Charles de Saillan; I'm an
7 attorney representing the New Mexico Environmental Law
8 Center and I just have a couple of clarifying questions
9 here.

10 MR. DE SAILLAN: Is that -- am I coming in well
11 now?

12 HEARING OFFICER ORTH: Yes. Thank you.

13 MR. DE SAILLAN: Thank you.

14 Q. (BY MR. DE SAILLAN) So, first of all,
15 Dr. McCabe, you mentioned that there were several
16 organizations that are supporting your proposal, or the
17 proposal to more quickly require retrofitting to replace
18 pneumatic controllers. Are you aware that the New Mexico
19 Environmental Law Center also supports that proposal?

20 A. Yes, sir.

21 Q. Okay. Thank you.

22 And then the second question I have is, you
23 testified, I think, about a NMOGA estimate that some 60
24 percent of the emissions are from pneumatic controllers.
25 Do you recall that testimony?

1 A. Yes, sir. To be specific, it's 60 percent of
2 reported emissions.

3 Q. Ah, thank you. Okay. I appreciate that
4 correction.

5 And you stated that you didn't think that that 60
6 percent figure was precise. Is it your view that that 60
7 percent figure is an underestimate or an overestimate?

8 A. So the 60 percent figure is a portion of total
9 emissions and it is actually something of an overestimate
10 because the total emissions in that case do not include
11 emissions from super emitters.

12 Q. All right. Okay. Thank you. That's all I have,
13 Dr. McCabe.

14 HEARING OFFICER ORTH: All right. Thank you,
15 Mr. de Saillan. Ms. Gutierrez, I see you on screen.

16 MS. GUTIERREZ: Yes. Thank you, Madam Hearing
17 Officer.

18 CROSS-EXAMINATION OF DAVID MCCABE, Ph.D.

19 BY MS. GUTIERREZ:

20 Q. Good afternoon, Dr. McCabe. Ana Gutierrez here,
21 with Hogan Lovells on behalf of Kinder Morgan. It's good
22 to see you again. If I understood -- I have just a couple
23 of questions here. If I understood your testimony
24 correctly, it's generally your position that Colorado's
25 rule is a good model for New Mexico's rule; is that right,

1 as a starting point.

2 A. Yes, in general.

3 Q. And is it correct that the Colorado rule does not
4 regulate transmission compressor stations?

5 A. That is correct, because transmission compressor
6 stations are covered under different provisions.

7 Q. But not with respect to the pneumatic rule we're
8 discussing?

9 A. Correct.

10 Q. And then, in your testimony, you made some
11 general statements about it being, you know,
12 straightforward to retrofit controllers to nonemitting at
13 a location with commercial power.

14 Did you present technical data or analyze the
15 ability of an operator, assuming the six-month time frame,
16 if a transmission compressor station would be required to
17 modify or increase commercial electric power because that
18 power source is inadequate for additional equipment? Did
19 you evaluate those costs and feasibility concerns?

20 A. Not directly.

21 MS. GUTIERREZ: Thank you. We have no further
22 questions. Thank you very much.

23 HEARING OFFICER ORTH: Thank you, Ms. Gutierrez.
24 We'll pause in the event -- oh, Mr. Hiser?

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

1 CROSS-EXAMINATION OF DAVID MCCABE, Ph.D.

2 BY MR. HISER:

3 Q. Dr. McCabe, just a couple of questions about some
4 of your testimony that you had. You cited a number of
5 studies to support your calculations for the impact of
6 pneumatic devices on VOC and also methane emissions. Were
7 several of those studies based upon gas meter supply
8 measurements to the emitting device or the pneumatic
9 controllers?

10 A. One study brought that out, I believe it used --
11 yes, put meters upstream of controllers. And in my
12 written testimony, I discussed how they identified -- they
13 used that to identify malfunctions.

14 Q. And in the study where we're using the upstream
15 supply for that, would it not have the effect of including
16 leaks and other parts in that supply loop and attributing
17 that to the controller?

18 A. It could.

19 Q. In the Allen 2015 study, is it not true that the
20 low-bleed controllers which you reported as a national
21 average of 10.8 standard cubic foot per hour, that that
22 really depends upon the inclusion of six controllers from
23 Facility CZ, which had an average rate of 57 standard
24 cubic foot per hour for those six controllers?

25 A. Mr. Hiser, I'm afraid I don't have the

1 supplemental information for Allen 2015 open in front of
2 me, so I'm not really able to answer that. I -- I -- I
3 can presume that that's the case.

4 Q. Okay. And so, then, you wouldn't be able to know
5 whether if you took those six out, if that average would
6 fall to .14 -- .14 standard cubic foot per hour?

7 A. The -- throughout the oil and gas industry we
8 have situations where a small number of devices, sites, or
9 pieces of equipment emit vastly more than other -- other
10 devices and sites. Unfortunately, those are very hard to
11 predict, and this is part of the reason we need to
12 evaluate emissions from pneumatic controllers very
13 carefully and consider what are appropriate ways to manage
14 those emissions.

15 Q. So this might be an example of one of those
16 distortions from a high-emitting device?

17 A. Sir, I don't agree that that's a distortion.

18 Q. In terms of the correctly-functioning device, are
19 you saying, then, that you believe they actually emitted
20 10. -- whatever that number was, 10.8?

21 A. For purpose of air quality management, what's
22 important is not the emissions factor for
23 correctly-functioning devices. For the purposes of air
24 quality management, what's important is the emissions
25 factor for real pneumatic controllers as they exist in the

1 field.

2 Q. Well, I thought Mr. -- Dr. McCabe -- excuse me --
3 that your proposal and the proposal from NMED were that we
4 would do leak detection repair and, hence, fix those
5 devices should they be leaking. So doesn't that make the
6 rate -- the emission rate a little bit more relevant here?

7 A. The -- first of all, the -- let me be clear, that
8 we support the find-and-fixed provisions, as we called
9 them in Colorado. Colorado felt that it was important to
10 move forward with retrofitting pneumatic controllers to
11 inherently nonemitting technology, even though they
12 already had the find-and-fix program in effect.

13 And the reason is, it's clear that some of the
14 pneumatics malfunctions are difficult to find during
15 normal inspections. Many of the malfunctions that that
16 Luck, et al., paper identified, were only -- were only
17 found by analyzing more than a day's worth of logged info
18 into the controller. They were not identifiable in an
19 inspection period of even 15 minutes.

20 So the inspections reduced emissions from
21 malfunctions, but there's no evidence that they eliminate
22 them.

23 Q. But they do reduce them?

24 A. Yes, sir.

25 Q. What other factors are there that affect a

1 pneumatic controller's bleed rate besides its design or
2 its malfunction status?

3 A. Actuation frequency, for example.

4 Q. Okay. Any others?

5 A. Maintenance status, whether it's a low-bleed or a
6 high-bleed which, I guess, you might consider a design
7 feature. There are many, many, many factors.

8 Q. Okay. Are you an engineer?

9 A. No, sir.

10 Q. Okay. In Exhibit 3 -- your Exhibit 3, page 23,
11 you criticize NMED's cost analysis because it failed to
12 account for alleged economic benefits that industry
13 receives from captured gas. Did you ever quantify that
14 benefit?

15 A. It is quantified, for example, in the cost
16 estimation tool that we utilized. I -- we -- we have
17 estimated that ourselves, we have not submitted it. And I
18 don't have that cost -- that effect on costs at my
19 fingertips. I can provide those later if that would be of
20 use.

21 Q. Okay. And then you also criticized NMED's cost
22 analysis in more or less the same place in that exhibit,
23 as it failed to account for maintenance savings. You're
24 not suggesting by that, are you, that electric or air
25 systems also don't have maintenance costs?

1 A. No. The maintenance savings that are discussed
2 in, for example, of the report that carbon limits produced
3 for Clean Air Task Force are net maintenance savings. So
4 they consider the -- the -- how much lease maintenance is
5 needed at the -- with the nonemitting alternatives, but I
6 agree that the replacement systems also need maintenance.

7 Q. Okay. In rebuttal Exhibit 23 on page 14, I
8 believe you said that you agree that it's more cost
9 effective to look at conversion of sites as a whole,
10 rather than a piecemeal basis; is that correct?

11 A. Yes, sir.

12 Q. And then at page 15, you state that the
13 instrument air should be sized, I think you said at the
14 vetting rate, plus approximately 25 percent?

15 A. Yes, I believe that's right.

16 Q. Do you have any personal experience in
17 contracting for electrical service at an oil and gas well
18 site or processing facility?

19 A. No, sir.

20 Q. And did you provide any alternative costs to
21 those provided by Valor EPC?

22 A. We -- we -- there are alternative costs embedded
23 in the cost tool, which is a transparent tool that allows
24 you to look into the cost assumptions that are used to
25 estimate costs in that tool. So, yes, we did submit

1 alternative cost data.

2 We didn't redo NMED's analysis because we thought
3 it was basically valid.

4 Q. Okay.

5 A. But we didn't -- so, yes, we did submit those
6 alternative costs assumptions, but we did not highlight
7 them.

8 Q. And do you believe that LDAR systems -- or LDAR
9 generally results in significant emissions improvements or
10 not, on pneumatic devices?

11 A. Yes, they've been -- I think that's been a little
12 hard to pin down because the behavior of pneumatics is so
13 hard to predict.

14 Q. And then in your surrebuttal testimony, I think
15 that there was a question from Mr. Baake about that
16 precedent for a short-term retrofit. And I believe you
17 gave an example from Colorado. Wasn't that example for
18 gas processing plants?

19 A. Yes, sir.

20 Q. And don't gas processing plants tend to be larger
21 facilities that are manned?

22 A. Yes, sir.

23 Q. All right. Those are my questions. Thank you
24 very much, Dr. McCabe. I appreciate your testimony. It
25 was very informative.

1 A. Thank you.

2 HEARING OFFICER ORTH: Thank you, Mr. Hiser.

3 If you're a counsel or party with question of
4 Dr. McCabe, please turn on your screen. I'm seeing no one
5 else among the parties, we'll turn to questions from the
6 Board. And if you're an attendee on this platform and
7 would have a question, please reach out through the Chat
8 while -- while we are taking the Board's questions.

9 EXAMINATION BY THE BOARD OF DAVID McCABE, Ph.D.

10 HEARING OFFICER ORTH: Madam Chair, do you have
11 questions of Dr. McCabe?

12 CHAIRPERSON SUINA: Thank you so much, Madam
13 Hearing Officer. I do have a few questions. I was trying
14 to take some notes here. I think Mr. Hiser had brought
15 some of these questions up in his cross-examination, but I
16 just wanted to get my head around, Dr. McCabe, is the
17 Colorado rule in your analysis -- and I think you've
18 touched upon this -- how has it affected the industry in
19 Colorado? Have we seen a major increase or decrease in
20 the industry in Colorado because of the rules there in
21 Colorado?

22 DR. McCABE: No, ma'am. What we have seen,
23 looking back historically in Colorado, is that Colorado
24 has put in place rules starting in 2014, which
25 comprehensively address the sources of VOC and methane for

1 many, many different sources. And, of course, when you
2 look at production or drilling activity in any state,
3 there's huge changes over time. Right?

4 And I believe in some rebuttal testimony we
5 submitted -- some written rebuttal testimony we submitted,
6 I compared two -- I compared Colorado to two other states:
7 North Dakota and Oklahoma. And what you see in that --
8 and North Dakota and Oklahoma have not put in place those
9 protective rules to limit methane and VOC pollution.

10 And what you can see when you just do that in
11 comparison, you know, just by comparing the states, then
12 you can see that the trend over time in Colorado is
13 matched pretty much exactly by the trend over time in
14 Oklahoma and North Dakota. So things are changing a lot,
15 but it's not because of these rules. It's because of the
16 price of oil, the price of gas.

17 And the reason I chose Oklahoma and North Dakota
18 is it's also changing because so many of the resources are
19 flowing to the Permian Basin. So, over time, for example,
20 the grid count is lower over time in all of the states
21 than it starts. So, no, we simply don't see the -- any
22 sign of economic problems upsetting the industry as a
23 result of these rules when we look at the data from
24 Colorado.

25 CHAIRPERSON SUINA: So, given some of those

1 examples you used with Oklahoma, North Dakota and
2 Colorado, and then you had mentioned the Permian Basin;
3 where are we in terms of Colorado being on the scale of --
4 in terms of nationwide, the amount of production they
5 have? I think -- you know, I think in previous testimony
6 during this hearing we're at -- New Mexico is second in
7 terms of the producers -- the state as a -- as a
8 nationwide producer. Where -- where is Colorado on that
9 scale, do you know?

10 DR. McCABE: Ma'am, I'm sorry, I don't know off
11 the top of my head. It's -- it's in the top eight, but
12 I'm not 100 percent sure. You know, you've got Alaska and
13 California that are also major producers, Oklahoma. So
14 I'm not -- I'm not really sure where it lies, but it is a
15 significant producer.

16 CHAIRPERSON SUINA: And so, Oklahoma -- what
17 would you say in your review is Oklahoma -- are Oklahoma
18 rules less strict than Colorado and New Mexico?

19 DR. McCABE: That's my understanding.

20 CHAIRPERSON SUINA: Okay. And less strict in
21 terms of monitoring and inspection and the requirements
22 for retrofitting? Is that what -- that's what I'm trying
23 to see is, is that, in your mind what is less strict?

24 DR. McCABE: All of the above, yes, ma'am.

25 CHAIRPERSON SUINA: Okay. I think that's all I

1 have for right now, Madam Hearing Officer. And I may have
2 some additional questions later.

3 HEARING OFFICER ORTH: Thank you. Vice-Chair
4 Trujillo-Davis?

5 VICE-CHAIR TRUJILLO-DAVIS: Thank you, Madam
6 Hearing Officer. And thank you, Mr. McCabe for your
7 testimony and for the examples and stuff that you put in
8 your exhibits. It was very explanatory as I was looking
9 through them.

10 I was curious, though, are you familiar with the
11 construction differences between Colorado facilities and
12 Permian Basin facilities and did you account for that?

13 DR. McCABE: No, I don't have data available on
14 those construction differences.

15 VICE-CHAIR TRUJILLO-DAVIS: Okay. I'll reserve
16 the rest of my questions for later. Thank you.

17 HEARING OFFICER ORTH: All right. Thank you.
18 Member Cates?

19 Member Cates said he would be off and on today.

20 Member Bitzer?

21 BOARD MEMBER BITZER: I have no questions. Thank
22 you.

23 HEARING OFFICER ORTH: Thank you. Member Garcia?

24 BOARD MEMBER CATES: I'm sorry, Madam Hearing
25 Officer. This is Member Cates. I have no questions.

1 Thanks for asking.

2 HEARING OFFICER ORTH: Oh, thank you, Member
3 Cates. Member Garcia?

4 BOARD MEMBER GARCIA: So I just have a couple of
5 questions. I was going to ask exactly what Chair Suina
6 asked about the impact to Colorado. Let me ask you, sir,
7 I know you are not an economist, but you do have a pretty
8 good feel for the industry. And I asked this of another
9 witness, I think it was Mr. Smitherman, but I will ask you
10 the same thing.

11 I understand that regulation does play an
12 important role when a company is determining cost
13 effectiveness of continuing their work or whether to shut
14 down a well, et cetera. Would you say commodity price was
15 the most important factor in determining whether they
16 should move forward with production or not?

17 DR. McCABE: Yes, I would agree with that.

18 BOARD MEMBER GARCIA: Okay. Thank you. And then
19 one -- one other item. I was also going to ask you what
20 Mr. Hiser asked, which is if you had quantified the
21 benefit of gas saved in reduced maintenance for replacing
22 pneumatic controllers, if you had quantified that. You
23 said you did not submit it, but you did estimate it. Did
24 I hear you say you might be providing that information
25 later or?

1 DR. McCABE: Yes, if that would be of use to the
2 Board we can -- we can go back and do that, you know.

3 BOARD MEMBER GARCIA: And what did you base your
4 estimate on?

5 DR. McCABE: You mean, like -- I'm sorry. For
6 the gas savings or for the --

7 BOARD MEMBER GARCIA: Gas and maintenance
8 savings, to quantify those savings, how did you do that,
9 just generally?

10 DR. McCABE: So for pneumatic controllers, the
11 gas that is emitted is the -- when you switch to a
12 nonemitting solution, such as electric controllers or
13 instrument air, all of the gas that the old controllers
14 emit is kept in the system and, therefore, sold. So you
15 can just multiply that -- that gas savings, which is also
16 the same as the, you know, avoided pollution, by the price
17 of gas. So, typically, what we would do is take a Henry
18 Hub price and discount it somewhat.

19 For the maintenance savings, our information
20 comes from a consultant's report we published several
21 years ago that estimated -- provided estimates of
22 maintenance savings per device replaced, based on
23 interviews of producers and technology providers.

24 BOARD MEMBER GARCIA: Okay. Thank you.

25 And so you -- it sounds like your determination

1 is the savings are significant enough that it should be
2 accounted for in a cost analysis, which NMED did not do?

3 DR. McCABE: If you want the -- the -- yes, if
4 you want it to be precise. Not to be argumentative, but I
5 suppose you could also say that NMED showed it was cost
6 effective and not -- you know, didn't feel that it was
7 necessary to show that it was even lower than the cost
8 effective amount, if you follow me.

9 BOARD MEMBER GARCIA: Okay. Thank you very much.
10 Appreciate that. That's all I have.

11 HEARING OFFICER ORTH: Thank you, Member Garcia.
12 I managed to pass Member Duval. Member Duval, do you have
13 questions?

14 BOARD MEMBER DUVAL: No question. I just wanted
15 to make sure you knew I was on the -- I was on the call.

16 HEARING OFFICER ORTH: Thank you very much.
17 Member Honker?

18 BOARD MEMBER HONKER: Yes, just one question.
19 When did the Colorado rules go into effect?

20 DR. McCABE: Let's see. I believe the hearing
21 was in February, sir. February 2021, and the retrofit
22 provisions, you know, go into effect on that schedule, so
23 actually the first date under their program is actually
24 May 1st, 2022. And then the second date is May 1st, 2023,
25 and we were comparing the 2023 requirements -- the

1 cumulative requirements up until 2023, to the NMED
2 requirements for 2024 just because those were close in
3 time.

4 BOARD MEMBER HONKER: But in the case of
5 Colorado, that -- the May 1st, 2023, deadline was over two
6 years after they finalized their rule?

7 DR. McCABE: Yes, sir.

8 BOARD MEMBER HONKER: Okay. Just wanted to make
9 sure I was clear on that. Thank you. Nothing else.

10 HEARING OFFICER ORTH: Thank you. Vice-Chair
11 Trujillo-Davis, do you have more questions of Dr. McCabe?

12 VICE-CHAIR TRUJILLO-DAVIS: Yes, just one more
13 question. And I apologize, it just kind of popped up
14 right after I finished. I was thinking about the
15 transition time that you talked about with Colorado and
16 the transition times that you were identifying with NMED.
17 And I'm curious, was -- in either of those cases, were
18 there any analyses done on the grid that supports those
19 locations, and if it can support those timelines as well?

20 I've lived in Southeast New Mexico for 13 years
21 and the power grid's always been a little bit behind. So
22 I'm -- that's kind of where my question is coming from.

23 DR. McCABE: Not to my knowledge. Again,
24 industry, you know, is obviously following support of the
25 rule. I want to be clear that -- I have not seen any

1 indication that any operator in -- any significant
2 operator in Colorado anticipates that connecting to the
3 grid will be -- you know, that they will depend on grid
4 connections in order to comply with the Colorado program.

5 They also express frustration with the difficulty
6 in getting connected to the grid and so, to my knowledge,
7 there's no dependence on that connection for compliance.

8 VICE-CHAIR TRUJILLO-DAVIS: And I appreciate you
9 using Colorado as a template, but, you know, really, we're
10 talking about New Mexico. And so, I'm just curious, was
11 any investigation done in to either the San Juan or into
12 the Permian, because, I mean, that's really where we're
13 talking?

14 DR. McCABE: So these devices are -- you know,
15 these technologies have been proven in a number of places,
16 actually more to the north of Colorado than in Colorado,
17 to my knowledge. So we believe there are generally
18 applicable technologies. And we haven't done a
19 Permian-specific study or a San Juan-specific study and --
20 but it -- it -- it -- we do believe that the lessons
21 learned from the many places where these devices are in
22 use, are valid in New Mexico.

23 And I will say one more thing, which is, several
24 of the vendors of these technologies are very much focused
25 on the Permian and are selling these technologies.

1 VICE-CHAIR TRUJILLO-DAVIS: And I apologize if I
2 wasn't clear in my questioning. I am not questioning your
3 device or the devices or the technology at all. I was
4 really focusing on the timeline and that transition. So
5 that was really where my questions were going, not so much
6 the technology. But thank you for answering that question
7 about Permian-specific studies. So I don't have any --
8 any more questions.

9 HEARING OFFICER ORTH: Okay. Thank you,
10 Vice-Chair.

11 Mr. Baake, has this questioning raised any
12 redirect for you?

13 MR. BAAKE: No redirect, Madam Hearing Officer.
14 My co-counsel did remind me that I neglected to move to
15 admit our exhibits subject to IPANM's objection, which I
16 think we agreed to brief later. So if it's agreeable to
17 the Board, we would move to admit those now.

18 HEARING OFFICER ORTH: Yeah, and actually that is
19 something we need to talk about. I was hoping to talk
20 about it with counsel before we broke for lunch.

21 So thank you very much, Dr. McCabe. I'm going to
22 move to a different topic here. And this discussion
23 really is for counsel more than the Board. I would very
24 much like to pack as much real testimony into the day
25 between, say, 9 and 6 if possible, without using that time

1 to have lawyer arguments, because the Board certainly can
2 hear it if they want, but they don't -- they don't need
3 to.

4 So we have a number of motions, including one I
5 saw this morning. We've already had some testimony
6 subject to objection on the record. And yet, I feel like
7 the motion that was filed this morning is going to have
8 rather more significant impact on what we do or do not
9 hear tomorrow on LDAR. So my question of counsel -- I'm
10 happy to take anyone's opinion -- is whether we should
11 take that up at the end of the day today when hopefully we
12 will be done with the pneumatics testimony, or whether we
13 should take it up tomorrow morning before 9. It doesn't
14 matter to me.

15 I see Ms. Fox and Ms. Katz. Ms. Fox?

16 MS. FOX: Thank you, Madam Hearing Officer. I
17 think whether we argue it today or tomorrow morning, I
18 would defer to Mr. Hiser because he will be preparing his
19 response.

20 HEARING OFFICER ORTH: Mr. Hiser?

21 MR. HISER: I would prefer tomorrow morning
22 because I'm in the middle of a hearing, I really can't do
23 much.

24 HEARING OFFICER: All right. Ms. Katz, any --
25 any observations here?

1 MS. KATZ: No, that's -- I'm certainly amenable
2 to that.

3 HEARING OFFICER ORTH: All right. So -- oh,
4 Ms. Fox?

5 MS. FOX: I was just going to add to what
6 Mr. Baake said about moving in our Exhibits 1 through 27.
7 And that is we have agreement with IPANM counsel to move
8 them into evidence, subject to his objection related to
9 methane, which we have agreed can be argued through
10 post-hearing briefing if -- if that's acceptable to you,
11 Madam Hearing Officer.

12 HEARING OFFICER ORTH: Absolutely. Absolutely.
13 I'm sorry, I didn't understand that I could do that now.

14 So Exhibits 1 through 27 are admitted and we will
15 take up the rest of the argument later. I wasn't sure if
16 we were waiting on that argument. All right. Thank you
17 for that.

18 (Clean Air Advocate's Exhibits 1 - 27 received
19 into evidence at this time.)

20 HEARING OFFICER ORTH: So let's break for lunch.
21 If we could take something less than an hour, we need to
22 pack a lot of testimony in to today. It's ten of noon.
23 Can we come back at 20 of 1? Oh, wait.

24 Yeah, so we're going from here to Mr. Smitherman
25 and Mr. Meyer, aren't we? Okay. Let's get Mr. Hiser back

1 on the screen.

2 MR. HISER: Madam Hearing Officer.

3 HEARING OFFICER ORTH: Yes, sir. What would be
4 your preference? I believe we go from here to
5 Mr. Smitherman and Mr. Meyer if I read the spreadsheet
6 correctly. What is your preference, to take 20 or 30
7 minutes now or to do some before public comment? I'm
8 loathe to take too long of a lunch break.

9 MR. HISER: I think Mr. Meyer will be fairly
10 extensive. Mr. Smitherman may be a little bit briefer.
11 Let me check here. So we might be able to get
12 Mr. Smitherman in now.

13 HEARING OFFICER ORTH: Terrific. Let's --
14 let's -- let's jump with that. Thank you very much.

15 MR. HISER: I see him.

16 MR. SMITHERMAN: May I have sharing rights,
17 please?

18 JOHN R. SMITHERMAN,
19 having been previously duly sworn, was examined and
20 testified as follows:

21 DIRECT EXAMINATION OF JOHN R. SMITHERMAN

22 BY MR. HISER:

23 Q. Mr. Smitherman, while you're getting yourself up,
24 can you go ahead and state your name for the record?

25 A. Name is John R. Smitherman.

1 Q. And you've previously adopted your testimony
2 which is found in direct -- NMOGA Direct Exhibit A1 and
3 Rebuttal Exhibit 41, correct?

4 A. That's correct.

5 Q. Do you have any change to that testimony as it
6 relates to this topic?

7 A. I do not.

8 Q. Okay.

9 A. Let me stop for just a second. I've got the
10 wrong file up.

11 Q. That would be unhelpful.

12 A. That would be unhelpful.

13 Well, I still have the wrong file up. Just one
14 second, I'm going to turn that file off.

15 Q. Is this the one you were looking for?

16 A. Oh, is that working?

17 Q. No.

18 A. I can see it from here.

19 Does that say "Surrebuttal."

20 Q. It says Surrebuttal Testimony of John
21 Smitherman."

22 A. Perfect.

23 Q. So. Mr. Smitherman, did you prepare some
24 testimony on the pneumatics issue?

25 A. I did.

1 Q. Would you like to provide a summary of that
2 testimony to the Board, please?

3 A. I would be happy to do so. Thank you for the
4 opportunity. I'd like to first, in essence, compliment
5 the NMED for a change that they made in the bleed rates
6 definition. As you already heard today from a couple of
7 different witnesses, a properly functioning intermittent
8 device does not have a bleed rate, and that's an important
9 distinction in making sure that this rule basically
10 applies to the facts.

11 So I want to move on from there. Dr. McCabe
12 stated in his testimony that NMED should require all
13 operators to deploy nonemitting -- nonemitting pneumatic
14 devices at sites with grid power within a six-month period
15 of time.

16 We would -- we would disagree with that. We
17 think that that's too rapid a transition time. NMED has
18 already proposed fairly aggressive transition times for
19 pneumatics, and we believe that they have the right
20 balance in balancing the desires for emission reduction,
21 with the realities of budgetary, human resources, and
22 supply chain challenges. So we would -- we would prefer
23 to see the NMED schedule prevail.

24 And also, just as a little sidebar, all -- all of
25 the non -- all of the replacements to nonemitting should

1 count toward the NMED statute. I know I heard some
2 testimony this morning about NMOGA's initial proposals.
3 In fact, even the most redline proposals, but we've
4 listened carefully to all the testimonies that we have
5 seen so far. And upon reflection, we recognize that
6 there's many proposals out there, and rather than try to
7 pick a little bit of this and a little bit of that from
8 the various proposals, we believe that by accepting the
9 current NMED pneumatics proposal, that's the best, if you
10 will, package that's on the table.

11 We think that it balances the needs of emissions
12 reductions with the realities of the oil and gas business
13 in New Mexico. We believe that the controller count basis
14 is a reasonable approach for New Mexico. Some of the
15 other proposals are either not technically or economically
16 feasible, or create big challenges that are not warranted,
17 including putting, in essence, additional strains on
18 companies and supply chains that are just not warranted.

19 We also recognize that a coupling -- a coupled
20 proposal, which is to include intermittent pneumatics in
21 LDAR programs further reduces the urgency, if you will, of
22 these pneumatic change-outs because it identifies those
23 malfunctioning intermittent controllers more quickly.
24 Couple that with the more recent OCD requirements for very
25 frequent documented AVOs, we believe that the combination

1 of LDAR and AVOs, and these change-out provisions that the
2 NMED has proposed, will end up with a nice balance
3 between, as I said, emissions reductions and viability of
4 the oil and gas business.

5 And by the way, to make a point, NMOGA does
6 support LDAR on every site: Every well site, every
7 gathering and boosting station, every transmission
8 compressor station and every gas processing plant across
9 the boards, regardless of potential to emit at least once
10 per year.

11 Q. And part of that NMOGA adoption of the NMED
12 proposal is based upon our understanding that the short
13 time frame or the line power issue is going away and that
14 that could be addressed as part of the overall approach
15 toward phasing these devices out; is that correct?

16 A. That's correct. And, lastly, I'd like to
17 approach a topic that was just discussed by Dr. McCabe and
18 the Board. This concept that somehow the additional
19 revenues from these gases that are not emitted once you
20 switch from a gas emitting device to a nonemitting device,
21 that somehow that that's going to make a significant
22 impact on the cost effectiveness; in fact, even the
23 cost -- the net cost of these change-outs.

24 Dr. McCabe says that the gas that you don't emit
25 adds to the revenue. That's a true statement, but it's

1 only part of the story, and it really -- it ignores the
2 rest of the story, which is it costs money to change these
3 out. So you need to compare the cost of the change-out
4 with the additional revenues that come from that
5 change-out. I've used the ERG -- NMED's numbers --
6 basically ERGs' numbers in doing an analysis of a
7 change-out. I used an air compression system with a
8 hundred controllers; it's a fairly large one, and by using
9 the larger choice they had several choices in their --
10 their underlying work; it is the least costly of those air
11 compressor change-over systems on a per controller basis.
12 So the cost of the installation of that type of a system,
13 that large system is \$719 and some change for the upfront
14 cost to change.

15 Now, you also have costs of operations, and
16 you've heard a lot of discussion about maintenance and the
17 difference in making sure that you kept the maintenance
18 costs in there. This number here that I show you --
19 again, these are ERG's numbers: \$247.80 per year per
20 controller. Now, that does include maintenance costs, and
21 I did not include maintenance cost on the ongoing use of
22 the underlying gas emitting controller, but that's a very,
23 very small part of this total cost of operations; in fact,
24 94 percent of the cost of this operation is simply buying
25 the electrical power to run the air compressor to run the

1 system.

2 So even if you decided that for some reason you
3 thought that the maintenance cost on the existing system
4 is equal to the maintenance cost on the air compressor
5 system, then this is substantially still correct. These
6 systems have an estimated ten-year life, so you take the
7 cost of installation and ten years of operations to get a
8 full-cycle cost of around \$3,200 per controller. And
9 let's offset with those revenues that we're supposedly
10 going to get when we convert -- we are going to get when
11 we convert.

12 I used an emission rate, again, that came from
13 the ERG study. This basically came from EPA work, of 1.37
14 standard cubic feet per hour. That's associated with a
15 low-bleed device. Now, anecdotally I have spoken to many
16 operators in New Mexico, and many of them have already
17 changed out high-bleed devices to low-bleed devices,
18 virtually -- or intermittent devices everywhere. So I
19 think it's appropriate for us to compare the gas -- the
20 additional gas that gets sold based on a low-bleed device.

21 That 1.37 scf per hour -- standard cubic feet per
22 hour, relates to basically 12 mcf a year per controller.
23 And at a \$4 gas price -- and once again, I keep hearing
24 this, too; just take the gas, and multiply it by the
25 price. We don't get the whole price. We have to pay

1 royalty, we have to pay taxes on those prices, so you
2 might get a Henry Hub price of \$4, but, basically, you get
3 about 80 percent of that. So I used \$3.20 as my revenue
4 stream. So you take 12 mcf times \$3.20 per mcf over a
5 ten-year life, and you're barely over 10 percent of the
6 cost of the conversion and operating.

7 So I do believe that you get additional revenues,
8 there's no doubt about that, but that doesn't tell you the
9 whole story. These things won't pay out and I think that
10 NMED has properly recognized that. That concludes my --
11 my testimony, sir.

12 Q. Thank you, John.

13 MR. HISER: Madam Hearing Officer, I'll make him
14 available for questions.

15 HEARING OFFICER ORTH: Thank you. If you would
16 briefly stop sharing your screen. I see Mr. Baake on
17 screen. Mr. Baake, do you have questions of
18 Mr. Smitherman?

19 MR. BAAKE: I do.

20 CROSS-EXAMINATION OF JOHN R. SMITHERMAN

21 BY MR. BAAKE:

22 Q. Hello, Mr. Smitherman. I represent the Clean Air
23 Advocates. Thank you. I think you know who we are.

24 A. Could you speak up, sir?

25 Q. Sorry. Yes. Hello, Mr. Smitherman. I represent

1 Clean Air Advocates. I think -- I'm sure you probably
2 know the groups that are included in that. Could we get
3 actually that slide back up?

4 All right. Thank you so much. So I -- I do
5 appreciate that NMOGA has -- has acknowledged that the
6 value of saved gas is a relevant factor and tried to
7 put -- put together an estimate. I did want to ask just
8 about the emission rate here. So I think that you would
9 agree, would you not, that the emission rate is a very
10 important factor for determining the value that you're
11 going to get from a conversion?

12 A. Certainly.

13 Q. And I think you said that you used the 1.37,
14 which is the Subpart W emission rate for this analysis; is
15 that correct?

16 A. I used the same emission rates that ERG used in
17 their study.

18 Q. Okay. So do you not -- are you not certain
19 whether it's Subpart W, or -- we could go back and look at
20 that, I guess.

21 A. Yes, I don't recall that.

22 Q. But you would agree that if the emission
23 factor -- if that -- if the Board were to determine that
24 that emission factor was too low, that this analysis would
25 not be -- would need to be updated to reflect that?

1 A. Well, I think if any of these numbers were either
2 too high or too low, that you'd have to recalculate. For
3 example, the cost -- I used what I thought was the lowest
4 cost option for the installation itself. There are much
5 more expensive options if you have smaller sites, you
6 simply can't defray some of those overhead costs to as
7 many controllers, so that would make a difference as well.

8 Q. Thank you. And Mr. Smitherman, did you review
9 Dr. McCabe's written testimony as well as listening to him
10 earlier today?

11 A. No -- some of it. I've read some of his
12 testimony, not every word.

13 Q. Understood. There are a lot of words. I know
14 that very well. Would -- could I -- if I were to
15 represent to you that Dr. McCabe testified that the
16 emission factor that NMED used for low-bleed controllers
17 is too low, and that it would be more appropriate to use
18 an emission factor of 5.1 standard cubic feet per hour for
19 those controllers, would that surprise you that he
20 testified to that?

21 A. Well, he said what he said, so my surprise
22 doesn't really mean much.

23 Q. Okay. But you are trying to rebutt his
24 testimony, and so it's just good to know if you had read
25 that part of it.

1 A. I'm not trying to rebutt his whatever claims he
2 has for an emission rate. I'm using an emission rate that
3 was consistent with what NMED has used, in essence, to try
4 to come to some common ground with some of the testimony
5 that's out there.

6 Q. All right, Mr. Smitherman. No further questions.
7 Thank you.

8 A. Thank you.

9 HEARING OFFICER ORTH: All right. Thank you,
10 Mr. Baake. Let's see if there is anyone else turning on
11 their screen. I don't see any other party turning on
12 their screen.

13 I'm going to turn to the Board for their
14 questions. While I'm doing that, if you are an attendee
15 on this platform and would have a question, please reach
16 out through the Chat.

17 EXAMINATION BY THE BOARD OF JOHN R. SMITHERMAN

18 HEARING OFFICER ORTH: Madam Chair?

19 CHAIRPERSON SUINA: Madam Hearing Officer, I
20 don't have any questions at this time

21 HEARING OFFICER ORTH: Thank you. Oh, I see
22 Ms. Katz.

23 MS. KATZ: Yes, Madam Hearing Officer. You know,
24 I know that we're in this weird time, but I do think for
25 these, we were still planning to try to put the witnesses

1 on generally in a panel, all the witnesses for the party,
2 and so I believe NMOGA has another witness and then it was
3 supposed to be Board questions. But, anyway, so we're
4 getting a little off, but I guess maybe it's fine since
5 we're in this -- falling in this strange time right now at
6 lunch and public comments.

7 HEARING OFFICER ORTH: All right. I'm sorry, I
8 thought I had confirmed earlier we were going back to Plan
9 A with questioning.

10 MS. KATZ: Yeah, except that the witnesses would
11 be the panel for the Board, not after all of the parties,
12 but the same witnesses for a party would sit for cross as
13 a panel, and then would sit for Board questioning as a
14 panel. So it was kind of not -- that applies to both --
15 to both plans.

16 HEARING OFFICER ORTH: All right. Thank you for
17 that. Mr. Hiser, would you like me to wait for Board
18 questions of Mr. Smitherman until after Mr. Meyer has
19 spoken?

20 MR. HISER: I don't know that it's necessary,
21 Madam Hearing Officer. I would rather if the Board wants
22 to ask questions before lunch so they don't have that
23 break, I would indulge the Board. If they'd like to wait
24 I am also good with that.

25 HEARING OFFICER ORTH: All right. Vice-Chair,

1 Trujillo-Davis, do you have any questions of
2 Mr. Smitherman?

3 VICE-CHAIR TRUJILLO-DAVIS: Yeah, just one.
4 Mr. Smitherman, the slide you put up, it kind of triggered
5 a little bit of déjà vu for me. So I'm curious did --
6 when you were looking at these numbers and putting them
7 together, was any of this work kind of done back when
8 Subpart W was being implemented? Was there -- was there
9 some leading up to where we're at now, with that work that
10 was done then?

11 MR. SMITHERMAN: Madam Vice-Chair, I was not
12 involved in any of that work, so if there was some work
13 that was similar to this, I'm not aware of it. This was
14 original work by me.

15 VICE-CHAIR TRUJILLO-DAVIS: Oh, okay. Thank you.
16 I appreciate the information.

17 MR. SMITHERMAN: Thank you, ma'am.

18 HEARING OFFICER ORTH: Thank you. Member Cates?

19 BOARD MEMBER CATES: No questions here. Thank
20 you.

21 HEARING OFFICER ORTH: Thank you. Member Bitzer?

22 BOARD MEMBER BITZER: It should be fairly simple.
23 Real quick, Mr. Smitherman. Assuming for the moment that
24 the emission rate that Counsel Baake was pointing out from
25 Mr. -- I think this was Mr. McCabe's testimony -- or

1 Dr. McCabe's testimony; assuming that was correct or
2 assuming there was some point in between the state's data
3 and that data, the equation, to me, seems pretty
4 straightforward. Do any of those scenarios get you -- get
5 you to break even?

6 MR. SMITHERMAN: Well, just looking at the
7 numbers in my head, the -- the revenues that we get at the
8 1.37 standard cubic foot per hour get you about 15 percent
9 of the total cost. So you'd have to go up by a factor of
10 at least 6. I can do that math in my head, which takes
11 you well over the number that he gave. And this is also
12 recognized -- you know, our witness, Mr. Meyer estimated
13 costs on these systems that were much high than the cost
14 that ERG used.

15 So, in essence, I tried to use a somewhat
16 noncontroversial cost number, but if you put the higher
17 cost number to it, I'm not sure how high the emission rate
18 would have to be to pay it out, certainly being
19 reasonable.

20 BOARD MEMBER BITZER: That's my only question. I
21 didn't -- I didn't see any scenario in which it got to
22 break even. I did the math a little differently in my
23 head, but I still came up short.

24 MR. SMITHERMAN: Thank you, and I think the same,
25 sir.

1 HEARING OFFICER ORTH: Okay. Thank you. Member
2 Duval?

3 BOARD MEMBER DUVAL: No questions. Thanks.

4 HEARING OFFICER ORTH: All right. Member Garcia?

5 MEMBER GARCIA: One question, please.

6 Mr. Smitherman, you said that the six-month time frame for
7 deploying the nonemitting devices was not economically
8 feasible -- not reasonable. And I believe Dr. McCabe
9 testified that -- and I may have this wrong, so correct me
10 if I'm wrong, but I believe that he testified that when
11 Colorado suggested the six-month time frame, their
12 industry did not object to it.

13 And I'm wondering what would be the difference --
14 what is the economic difference between New Mexico and
15 Colorado, where they would not object to it and we are
16 here in New Mexico?

17 MR. SMITHERMAN: That's an excellent question.
18 I'm going to have to base this on my memory of his
19 testimony. But I believe what he said was that the
20 six-month time frame was on processing plants; basically,
21 the larger facilities of which are fewer of them. And
22 so -- and by the way, it's not necessarily our position
23 that it's an economic challenge as much as it's a physical
24 and logistical challenge. When you have a relatively few
25 numbers of facilities that are being asked to retrofit

1 within six months, that's a very different question than
2 asking the entire industry, both upstream well sites and
3 all of these other smaller numbers of facilities to do so
4 in six months.

5 BOARD MEMBER GARCIA: Okay. That's a very good
6 clarification. Thank you, sir. That's all I have.

7 MR. SMITHERMAN: Thank you, ma'am.

8 HEARING OFFICER ORTH: Thank you. Member Honker?

9 BOARD MEMBER HONKER: I have no questions. Thank
10 you.

11 HEARING OFFICER ORTH: All right. Thank you.
12 Well, we got to just about 12:15. Let's take a break for
13 lunch and return at 1 for public comment. Thank you, all.

14 (Recess taken from 12:14 p.m. to 1:00 p.m.)

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

17 My name is Felicia Orth, Hearing Officer
18 appointed by the Environmental Improvement Board
19 conducting a hearing in EIB 21-27. We have three public
20 comment sessions a day, including one at 1:00. We've
21 reached the 1:00 session. Public comment is taken under
22 oath, is taken by audio, not video, and is limited to five
23 minutes. Several folks reached out to the Board
24 Administrator, Pamela Jones, to request a spot this
25 afternoon. I'll call you in the order in which you

1 reached out. Glenn Schiffbauer, Patricia Stern, Luis
2 Guerrero, Marla Painter, John Jones, and Anna Rondon. In
3 the event you are on the platform to offer comment and I
4 did just not read your name -- read your name, please
5 reach out through the Chat, which is enabled for everyone
6 and I'd be happy to take your comment.

7 There are ten more public comment session this
8 week at 9, 1 and 5 each day between now and Friday. So we
9 look for Mr. Schiffbauer. Mr. Schiffbauer, I'm unmuting
10 you. Can you hear me?

11 MR. SCHIFFBAUER: Yes, I can. Thank you.

12 HEARING OFFICER ORTH: Oh, your voice is coming
13 through nice and clear. Would you please spell your name?

14 MR. SCHIFFBAUER: Yes, first name is Glenn with
15 two Ns. G-L-E-N-N. My last name, Schiffbauer is
16 S-C-H-I-F-F-B-A-U-E-R.

17 HEARING OFFICER ORTH: Thank you. If you would
18 raise your right hand. Do you swear or affirm to tell the
19 truth?

20 MR. SCHIFFBAUER: I do.

21 HEARING OFFICER ORTH: Thank you. I'm going to
22 start your five minutes now.

23 GLENN SCHIFFBAUER

24 having been first duly sworn or affirmed,

25 gave public comment as follows:

1 PUBLIC COMMENT OF GLENN SCHIFFBAUER

2 MR. SCHIFFBAUER: Thank you. Good afternoon. My
3 name is Glenn Schiffbauer, and I'm the Executive Director
4 for the Santa Fe Green Chamber of Commerce here in Santa
5 Fe. I want to thank the EIB for this opportunity to
6 speak.

7 The Santa Fe Green Chamber has been involved with
8 the methane mitigation issue since 2014, and I would like
9 to speak a little bit about job creation today. New
10 research shows that reducing methane emissions from oil
11 and gas facilities not only helps clean the air, as we've
12 been hearing the past few days, but it is a creator of
13 good, high-quality jobs also. Over 200 companies across
14 the country are helping to manufacture the technology and
15 provide the services needed to reduce harmful oil and gas
16 pollution. These industry jobs offer well-paying
17 employment opportunities across the country that can't be
18 off-shored: saving money, minimizing waste and keeping
19 otherwise lost product in the pipe, while reducing harmful
20 pollutions.

21 Some key facts: there are over 225 manufacturing
22 and service companies with nearly 1,000 employee locations
23 across the country. The methane mitigation service sector
24 in the U.S. has nearly doubled in size since 2017; 65
25 percent of these are small businesses, like most of our

1 businesses in New Mexico. And they have the potential to
2 grow larger with the expansion of national methane
3 reduction efforts.

4 Three-quarters of manufacturing firms and 88
5 percent of service firms report that they could create
6 more jobs as national methane standards are tightened.
7 The starting salary for methane mitigation jobs is nearly
8 10 percent higher than the national average salary.

9 We have 11 locations in New Mexico where methane
10 mitigation companies are operating and we have five
11 company headquarters here: LaSen, Sky, Mesa Platonics,
12 Engineered Concepts and Spectral Sensor Solutions all have
13 homes in our state.

14 And on another note, there has been some industry
15 concern regarding the impact that these rules might have
16 on smaller producers. While the Santa Fe Green Chamber of
17 Commerce is an advocate for small business, we expect all
18 of our member businesses to abide by the laws and the
19 regulations of their industry. A small restaurant has to
20 pass health inspections, just as a large one does. If
21 keeping your restaurant clean and healthy isn't something
22 you can afford, you perhaps maybe have the wrong business
23 model and should think about other ways that you can make
24 money.

25 The same should apply in this industry. Governor

1 Lujan Grisham has committed to putting us in a position of
2 being a national leader with these proposed rules. Let's
3 be a national leader in methane mitigation job creation as
4 well. I thank you for giving me the time today.

5 HEARING OFFICER ORTH: Thank you very much,
6 Mr. Schiffbauer. I'm going to look for Patricia Stern
7 next. Let's see here. All right. I'm not seeing
8 Ms. Stern. Let me see if I have any call-in users.

9 Call-in user number 10, would you speak up? Who
10 is this? I'll go back to call-in user number 10. So I
11 don't see Ms. Stern.

12 Let me turn to Mr. Guerrero. There you are.
13 Mr. Guerrero, I've unmuted you. Can you hear me?

14 MR. GUERRERO: Yes. Can you hear me?

15 HEARING OFFICER ORTH: Yes. Thank you. If you
16 would, please, spell your name.

17 MR. GUERRERO: Of course. It's Luis, L-U-I-S;
18 last name Guerrero, G-U-E-R-R-E-R-O.

19 HEARING OFFICER ORTH: Thank you. And raise your
20 right hand. Do you swear or affirm to tell the truth?

21 MR. GUERRERO: Yes, ma'am.

22 HEARING OFFICER ORTH: Thank you. I'm going to
23 start your five minutes now.

24 LUIS GUERRERO,
25 having been first duly sworn or affirmed,

1 gave public comment as follows:

2 PUBLIC COMMENT OF LUIS GUERRERO

3 MR. GUERRERO: Okay. Thank you. Thank you very
4 much, everyone, for the opportunity to provide a comment
5 this afternoon. My name is Luis Guerrero. I live in Las
6 Cruces in Doña Ana County. For work, I am the legislative
7 and political organizer with the Sierra Club, Rio Grande
8 Chapter, but I am representing and speaking for myself
9 today.

10 I am today in favor of strong precursor ozone
11 rules, and here are some reasons why. Oil and gas
12 pollution have been taking a toll on all New Mexicans:
13 our air, our water and our health. Rural communities,
14 tribal communities, children and also the elderly are
15 especially at risk. In fact, the American Lung
16 Association gave New Mexico's top oil and gas producing
17 counties: Lea, Eddy and San Juan Counties an F grade for
18 ozone in the 2021 state-of-the-air report.

19 Oil and gas operations are a significant source
20 of ozone-forming VOCs from venting, flaring and leaks,
21 well site toxins that can worsen respiratory diseases and
22 trigger asthma attacks.

23 Smog can also worsen emphysema and impact the
24 cardiovascular system. Having worked in various areas
25 Southern and Eastern New Mexico, I can tell that you this

1 is true, and affects people in so many ways, that can
2 include, as I mentioned, respiratory issues as in kids and
3 can result also in missed days at school, and work for
4 parents, which ultimately affects the economy -- or local
5 economy and people being able to provide for their
6 families.

7 We are living right now historically dangerous
8 times. New Mexicans already are experiencing severe
9 impacts of climate change, that is in part powered by
10 methane that pollutes out of oil and gas operations with
11 ozone precursors. Harming our health, our air, land,
12 water and our economy. Scientists, NASA, and the
13 Department of Defense all agree that climate change is a
14 threat to our kids' future and we can no longer ignore the
15 increasingly strange, severe weather.

16 Reducing methane waste pollution, which is an
17 associated benefit of these rules is a key step for
18 Governor Lujan Grisham's strategy to address air pollution
19 and climate impacts caused by oil and gas facilities. And
20 the Governor has committed to enacting nation-leading
21 methane emission rules. We need to do better for the
22 future of New Mexicans and our planet. Again, I am in
23 support of strong precursor ozone rules. This would not
24 only prevent potential health risks, but also be
25 beneficial to our planet. We do only have one planet. We

1 do not have a Planet B.

2 New Mexico can, and I believe will be a leader
3 when it comes to fighting climate change and make a
4 difference for future generations. Thank you.

5 HEARING OFFICER ORTH: Thank you very much,
6 Mr. Guerrero. We turn now to Marla Painter. Ms. Painter,
7 can you hear me?

8 MS. PAINTER: Yes, uh-huh. Can you hear me?

9 HEARING OFFICER ORTH: Yes, I can. If you would
10 please spell your name.

11 MS. PAINTER: Yes. Marla, M-A-R-L-A; Painter,
12 P-A-I-N-T-E-R.

13 HEARING OFFICER ORTH: Thank you very much. And
14 if you would raise your right hand. Do you swear or
15 affirm to tell the truth?

16 MS. PAINTER: I do.

17 HEARING OFFICER ORTH: Thank you. I'll start
18 your five minutes now.

19 MARLA PAINTER,
20 having been first duly sworn or affirmed,
21 gave public comment as follows?

22 PUBLIC COMMENT OF MARLA PAINTER

23 MS. PAINTER: Thank you. My name is Marla
24 Painter and I live in the Mountain View neighborhood of
25 the South Valley. I am representing Mountain View

1 Community Action, a grass roots group working to improve
2 the environment, health and well-being of the residents in
3 Mountain View and the bosque next to our homes and farms.

4 I want to thank you for allowing me to speak
5 before the EIB, on strengthening the rules that regulate
6 the precursors to ozone. I bring to the discussion a
7 perspective that does not come from a scientist or an
8 industrial voice or one even of the communities directly
9 impacted by oil and gas extraction. I come -- but I come
10 from a community that suffers from unhealthy exposure to
11 locally-generated VOCs and the broader exposure to ozone.

12 Mountain View is a neighborhood, primarily
13 Hispanic Chicano that has existed for over 100 years.
14 Forty years ago, Bernalillo County decided to zone a swath
15 of vacant land in Mountain View, formerly subsistence
16 farms, for industrial use. As a result, we live next to
17 oil and gas terminals, oil and gas transloading
18 facilities, asphalt plants, salvage yards that dismantle
19 vehicles and degrease and clean vehicle parts, salvage
20 yards that accept barrels of unidentified toxic materials,
21 idling train engines, vehicle body stripping and
22 repainting facilities, contractor yards that store the
23 chemicals used for stripping and repainting road lines,
24 dumping yard for old asphalt, facilities that house
25 chemicals, the identify of which the Homeland Security Act

1 cannot allow us to know.

2 The monitoring of these facilities is thin and
3 inadequate, especially in an airshed like Bernalillo
4 County, which is at levels of ozone that impact the health
5 of many people who live here. Bernalillo County cannot
6 adequately monitor these VOCs with their current policies.
7 The City of Albuquerque does not monitor many VOCs and
8 there is no fenceline monitoring; yet, the residents of
9 Mountain View, like many residents of communities next to
10 oil and gas, wake up to the pungent odor of VOCs coming
11 into our homes each morning when the morning cool air is
12 heavy and settled in the lowest parts of the valley.

13 We -- we do not have adequate health monitoring
14 or health impact assessments to precisely know our state
15 of health in Mountain View. Still, we know that there is
16 asthma, heart disease, cancer, emphysema, and other
17 pulmonary illnesses in most households here, and while
18 many factors determine the community's baseline health,
19 the industrial VOCs significantly add to the problems.

20 None of the dangers of the gases from the oil and
21 gas operations in our area are monitored. When I was a
22 little girl in the 1950s in Los Angeles, I suffered from
23 asthma caused by ozone. I remember that the sensations
24 that go -- I remember all of the sensations that go along
25 with breathing in too much ozone. Until the past few

1 years here in Albuquerque, I hadn't had those sensations
2 since the 1950s in LA. My parents moved me out of LA to
3 protect my health.

4 I think of all the kids in Mountain View who
5 don't know why it hurts to breathe. And so I encourage
6 you and my organization encourages you to consider the
7 community-level impact of inadequate monitoring and
8 regulation of the precursors to ozone, and to remedy these
9 dangerous impacts on public health. We are desperate for
10 additional oversight and regulation. We support the EIB
11 finalizing strong rules that include requirements to
12 protect all communities near industrial areas that
13 generate ozone precursors, particularly in oil and gas
14 producing counties, but also at the end of that line,
15 where the oil and gas is transferred and travels outside
16 of our area.

17 The recommended measures will help protect all
18 impacted areas of our state that now suffer from a
19 disproportionate amount of environmental and public health
20 fallouts from the industries that contribute to ozone.
21 Thank you very much.

22 HEARING OFFICER ORTH: Thank you, Ms. Painter.
23 Let me go now to Mr. Jones. There you are. Can you hear
24 me, Mr. Jones?

25 MR. JONES: Yes.

1 HEARING OFFICER ORTH: Will you speak up?

2 MR. JONES: Yes, I can hear you.

3 HEARING OFFICER ORTH: Oh, good. There's your
4 voice, loud and clear. If you would, please, spell your
5 name.

6 MR. JONES: J-O-H-N, J-O-N-E-S.

7 HEARING OFFICER ORTH: Thank you. And if you
8 would raise your right hand. Do you swear or affirm to
9 tell the truth?

10 MR. JONES: I do.

11 HEARING OFFICER ORTH: Thank you. I'll start
12 your five minutes now.

13 JOHN JONES,
14 having been first duly sworn or affirmed,
15 gave public comment as follows:

16 PUBLIC COMMENT OF JOHN JONES

17 MR. JONES: Ms. Orth and members of the Board,
18 thank you for this opportunity to speak on this important
19 environmental -- (unintelligible.)

20 HEARING OFFICER ORTH: Hold on, Mr. Jones. I'm
21 sorry. Mr. Jones, I'm sorry to interrupt. I'll start
22 your minutes again. But you faded and we couldn't hear
23 you.

24 MR. JONES: I apologize.

25 HEARING OFFICER ORTH: Please start again.

1 MR. JONES: Ms. Orth and members of the Board,
2 thank you for this opportunity to speak on this important
3 environmental and economic issue. My name is John Jones.
4 I'm retired, but professionally, I managed community water
5 systems for 21 years, a heavily-regulated industry. I
6 adamantly support regulatory oversight because it helps
7 with industry safety and the public having faith in those
8 processes.

9 But not every well-intentioned regulation is a
10 good one. Placing 35 new administrative requirements on
11 small producers is going to be counterproductive. We have
12 a collective duty to both the environment and filling the
13 coffers of the state requires balance. As the -- excuse
14 me. As a water professional, I support treating and
15 cleaning produced water and I oppose anything that
16 inhibits the progress of developing those technologies,
17 particularly in a drought-stricken state.

18 Oil and gas has been proactive in developing
19 those technologies to clean up produced water. Encourage
20 them. Allow for -- allow for diverse technologies. Don't
21 tell them how to do it; encourage them to do it. Do not
22 disproportionately target small producers in the methane
23 rule.

24 Oil and gas produces are leading the development
25 of technology to limit emissions and reduce their

1 environmental footprint. Encourage them.

2 Thank you for your time and for your service to
3 the state. Thank you very much.

4 HEARING OFFICER ORTH: Thank you very much,
5 Mr. Jones.

6 Let me go to Anna Rondon. There you are. Hello,
7 can you hear me?

8 MS. RONDON: Yes.

9 HEARING OFFICER ORTH: I can hear you.

10 MS. RONDON: Can you hear me?

11 Okay. Thank you so much. Thank you for the
12 Environmental Improvement Board.

13 HEARING OFFICER ORTH: Excuse me. Ma'am?

14 MS. RONDON: Can you hear me?

15 HEARING OFFICER ORTH: I can. I need you to
16 spell your name first.

17 MS. RONDON: Oh. Anna, A-N-N-A, R-O-N-D-O-N.

18 HEARING OFFICER ORTH: Thank you. And if you
19 would raise your right hand. Do you swear or affirm to
20 tell the truth?

21 MS. RONDON: Yes, I do.

22 HEARING OFFICER ORTH: Thank you. And I'll start
23 your five minutes now. And if you would project --
24 project more so we can make a transcript of your comments.

25 ANNA RONDON,

1 having been duly sworn or affirmed,
2 gave public comment as follows:

3 PUBLIC COMMENT OF ANNA RONDON

4 MS. RONDON: Okay. Thank you. Well, thank you
5 to the Environmental Improvement Board for having this
6 space for the public to comment. I am speaking to you as
7 a private citizen. I am a Navajo woman, grandmother. I
8 have lived in Northwest New Mexico mostly all my life and
9 have children and grandchildren and relatives that work in
10 the industry up around the Counselor, New Mexico area.

11 And I just wanted to bring a couple of different
12 perspectives. You know, our communities, along with this
13 industry, also have problems -- social issues with the man
14 camps and also the accumulated impacts of oil, gas, coal,
15 uranium mining and the Gold King mine-spill up in
16 Northwest New Mexico. So with all of these industries
17 contaminating, and, of course, bringing energy to the
18 American people, but still, we suffer. Like previous
19 presenters this morning talked about the school, the child
20 well-being. We're 50th in the country, but still in
21 education, also we are at the bottom of the list. So it
22 seems that the revenue coming in from this industry is
23 really not making an impact on the success of our
24 children. So, either they give more money or also to
25 replace the revenue for education with upcoming cannabis

1 taxes that can be -- replace this industry.

2 I support this methane rule that will protect our
3 people -- all people in this state. And I understand the
4 economics of it and a slow transition would do our state
5 very well. And also creating jobs in doing the
6 retrofitting to capture the methane gas. And just a
7 reminder that we did have a -- we're very famous of having
8 a methane cloud seen from NASA. And, you know, we do have
9 the evidence that our people are getting sick and don't
10 have the proper healthcare as well. So in public health,
11 it's a major issue, on how we generate money, at whose
12 expense.

13 So that also needs to be balanced as well, in the
14 social justice realm. But thank you all and thank you for
15 hearing my comments. (Speaking Navajo.)

16 HEARING OFFICER ORTH: Thank you very much,
17 Ms. Rondon.

18 We have come to the end of the list of those who
19 reached out to offer public comment at the 1:00 session
20 today. So we will return to the technical case. If
21 you're on the platform and would like to offer public
22 comment, there are 9:00, 1:00 and 5:00 sessions every day.

23 So when we broke, I believe we were going to move
24 from NMOGA's witness, Mr. Smitherman, to NMOGA's witness,
25 Mr. Meyer.

1 MR. HISER: That's correct, Madam Hearing
2 Officer. Adam Meyer will be our next witness.

3 HEARING OFFICER ORTH: Okay.

4 MR. MEYER: I'm on here. Can you hear me?

5 MR. HISER: Yes, we can hear you, Mr. Meyer.

6 And Madam Hearing Officer, he will need presenting
7 permission.

8 ADAM MEYER,
9 having been previously duly sworn or affirmed, was
10 examined and testified as follows:

11 DIRECT EXAMINATION OF ADAM MEYER

12 BY MR. HISER:

13 Q. And Adam -- Mr. Meyer, could you please state
14 your name for the court reporter?

15 A. My name is Adam Meyer; last name spelled
16 M-E-Y-E-R.

17 Q. And you've previously submitted your testimony
18 and adopted it in direct exhibit NMOGA A2 and rebuttal
19 Exhibit 42; is that correct?

20 A. That's correct.

21 Q. Are there any changes you need to make to your
22 testimony in those parts?

23 A. No.

24 Q. Okay. Did you prepare a summary of your direct
25 and rebuttal testimony?

1 A. Yes.

2 Q. Would you like to share your screen?

3 A. Sure. Can everyone see that?

4 Q. Yeah. Can you make it bigger?

5 A. Yes. Is that acceptable?

6 Q. Yes, that's great. If you want to move ahead to
7 the pneumatics portion.

8 A. Absolutely.

9 Okay. Well, I -- first, I would like to start
10 off talking about summary of the effort related to the
11 pneumatics that Valor conducted. There was two separate
12 reports that were provided; one of them was on the
13 emission factors where we highlighted the latest studies
14 on emission factors from pneumatic controllers; and the
15 second one, which was more comprehensive, was a cost
16 estimate report that actually took into account the
17 current market costs during this post -- I won't say
18 "post," but post-COVID time. And of course, then there's
19 storage vessels, which we'll get to later on.

20 Q. Why don't you proceed and tell us about the first
21 step that you did, which was to look at the emission
22 factors. What types of studies did you consider and what
23 were your conclusions?

24 A. So the Valor team took a very simplistic approach
25 to this, which was to gather all of the studies that we

1 knew about, too, then tried to quantify emission factors.
2 And, specifically, it came down to the intermittent
3 pneumatic controller discussion. And we compiled them and
4 evaluated them and used that as a kind of a -- you know,
5 providing that reference, to say that in our estimation,
6 we recommend using -- kind of following in line with what
7 Colorado has done, and adopting that 3.5 standard cubic
8 feet per hour for an intermittent controller. And it was
9 a very simple study.

10 Q. And as part of that evaluation did you consider
11 prior critiques that Dr. McCabe had made about some of
12 those studies, and was one of the things you considered
13 attached as Exhibit -- as Appendix A to your Exhibit A2?

14 A. Yes. I think, yeah, there was a report that was
15 appended to that -- to that memo, to just kind of
16 illustrate in our perception that this was the latest and
17 greatest information that we have, and that the 3.5 is a
18 more appropriate emission factor. And I think a lot of
19 this will come to light in a lot of the surrebuttal
20 testimony.

21 Q. Okay. Why don't we move on then.

22 A. Okay. So a lot of this is -- I have a few slides
23 here to kind of wrap my arms around the greater effort
24 that we did. And so, portions of this will be anecdotal,
25 so I apologize for that. What we were charted to do was,

1 based on the time frame we had, was not to do a full
2 comprehensive State of New Mexico evaluation of the costs;
3 what we did -- what we thought was the best use of our
4 time was to piggyback off of the ERG and NMED cost
5 analysis and make adjustments as we thought were more
6 appropriate to the current marketplace with -- in terms of
7 equipment, and installation costs, and try to correct
8 those where -- where it was applicable.

9 Part of that, too, was, we believe that the ERG
10 cost estimate was quite impressive. I must say that it
11 was a very good -- it was a very good cost estimating
12 exercise. And, to me, the most important thing when we
13 evaluate cost estimates between Individual A and
14 Individual B is -- is to try to compare apples to apples
15 where we can. And so, therefore, we just used the NMED
16 cost estimating sheet as the first step.

17 So what we did through that process is, we
18 incorporated this emission factor of 3.5 scf's per hour
19 for the intermittent controller. And that was a simple
20 change and, you know, update the sheet appropriately. And
21 then what we did is, we conducted a series of studies
22 gathering vendor information on the various configurations
23 we could think of that may be instituted at some of these
24 production facilities, midstream facilities in New Mexico.
25 So you see here I have a couple of bullet points

1 describing the facilities that need to be converted to
2 instrument air for sites that have access to electricity
3 or have it on site already; conversion where they don't
4 currently have electricity on site.

5 The next one being if we -- what is the cost
6 associated with, say, it didn't have access to electricity
7 at all, any grid power, how would you power those
8 instrument air compressors. And so we evaluated a
9 generator and solar hybrid combination and how much that
10 would kind of cost. And then, the last one was, you know,
11 completely going to solar power for all of your instrument
12 gas -- instrument needs.

13 And so for each of those kind of categories, and
14 I'm sure there's other hybrids and more, what we did was,
15 you know, provide the latest vendor information and tried
16 to keep everything as consistent as possible with -- with
17 the NMED cost estimate sheet, to the point where there are
18 costs associated in that sheet that are -- or, sorry,
19 there are features in that estimate sheet that we don't
20 necessarily agree with; for example, the -- the time to
21 pay back, you know, with ten years and an interest rate.
22 We don't believe in that, you know, you should be looking
23 at a ten-year payback for these facilities. But, again,
24 that would have added another variable that we weren't
25 trying to focus on.

1 There's other instances that you see here, 5
2 horsepower or 15. You know, one of the things that the
3 cost estimating sheet that ERG did was where it was very
4 impressive, as to how they broke it down but the, you
5 know, the number of pneumatic controllers and the
6 horsepower of a compressor that would be required to
7 supply that. We gathered the process and made costs and
8 vendor information for those similar sizes.

9 Q. Okay.

10 A. Okay. One of the biggest kind of deltas was in
11 between the ERG cost estimate sheet and the updates we
12 made, is based on the vendor information -- the vendor
13 quotes -- right -- hard vendor quotes that we received
14 from working these projects over the years -- and the air
15 compressors always seem to be the delta. And one -- the
16 thing to take away from this is, this is not your -- this
17 is not your Home Depot air compressor. You know, it's
18 different. There's more to it. There's more bells and
19 whistles. And, you know, to the point, like there's also
20 not a standard -- there's not a linear cost per horsepower
21 once you get to a lower threshold.

22 You know, so, for example, if I needed a -- you
23 know, if I calculated I needed a 3 horsepower, you know,
24 maybe the standard one that's available is 5, and the
25 things I need to go with that are all pretty much the

1 same, even if I went to 15 or 30, or whatever. The -- I
2 still need a building, I still need to protect the system.
3 I still need to wire it up. I still need some steel to
4 support it, an electrical panel, and then, of course, all
5 of the piping and tubing that go with it.

6 So, I mean, it's very much like you're, you know,
7 buying a car. You can buy a standard -- get a standard
8 package, you know, a starting-at price of this, and then
9 you add on your leather and your features like that. It's
10 very similar. It's not -- it's not linear with
11 horsepower.

12 So, other things that we added to this were
13 installation costs; a crane -- you know, there's things to
14 consider like personnel time and crane time. And I think
15 you've heard from other testimony that, you know,
16 personnel -- trained personnel are kind of short in
17 supply. And I have on here, B-O-P, which means balance of
18 plant. For anybody who doesn't know, that's -- that's
19 basically everything around the building, around the air
20 compressor, piping that I need to hook up to it, or, you
21 know, electrical, or instrumentation, if I need to monitor
22 how well it's performing.

23 So we -- we added those costs into the
24 spreadsheet and came up with something significantly
25 higher. One of the things that we, you know, have been

1 dealing with a little bit is, you know, when we switch
2 over to instrument air and air compressors, there is
3 this -- we sort of introduced it as a single-point failure
4 into the system. You know, a lot of -- a lot of
5 facilities that are on instrument gas, or, you know, fuel
6 gas, sometimes the pneumatics are taken off of the
7 separator that they're servicing or maybe there's a
8 combined fuel gas system that just goes to a passive
9 vessel or knockout, that then services all of the end
10 devices.

11 And there is a little bit of a fear right now
12 with, you know, converting to a system that has a
13 single-point failure. And, you know, I bring that up for
14 there was a minor delta, I think, in some -- that you see
15 in some rebuttal, that was, hey, the cost for a 60
16 horsepower instrument air system is almost double than
17 what I would have thought. And the reason for that is
18 because, you know, usually if you're in that range of size
19 of compressor, you're servicing a much bigger facility.

20 And if that bigger facility goes down due to a
21 single-point failure, you've got bigger emission problems,
22 such as any kind of emissions from restarting a system, to
23 blowing down equipment, emissions from tanks, if there's
24 thermal breathing losses. So with those bigger
25 facilities, sometimes if there is a fear of single-point

1 failure, we -- we recommend to put in a redundant
2 compressor that's on standby. So we call them, like, two
3 100 percent compressors; meaning, each one of them can
4 handle the facility, but they are redundant, you know, for
5 a -- to accommodate for a failure.

6 Other things that we are kind of seeing is, we're
7 looking at -- with instrument air is the reliability of
8 the grid. And, you know, that just kind of goes along
9 with single-point failure discussions. And, you know,
10 what happens when -- when that system goes down? All of
11 these things have to be considered when we are designing
12 these systems.

13 Q. Your basic point here is that the expectation of,
14 certainly, the company that you're working for, certainly
15 the agency and the surrounding public, is that control
16 systems should work and they should work all the time?

17 A. Yeah, yeah. And that's right. And -- and,
18 ultimately, you know, I'm a service provider, right? So I
19 always have to recommend for redundancy or providing a
20 little bit oversizing of equipment because if I'm wrong,
21 usually it's on me and my team. I don't want to get the
22 phone call at 11 p.m., so...

23 Another point that was in the Valor memo
24 regarding, you know, conversion, was to like completely
25 electric actuated valves and dump valves on separators,

1 and basically everything. Now, you know, I, personally,
2 have some issues with that, only because there's a -- we
3 have to consider these valves and the process condition
4 that they're serving, that we want them to be failsafe.
5 When we say "failsafe," it's usually like you lose
6 pneumatics, the valve closes, or it opens, depending on if
7 it's a normally-opened valve or a normally-closed valve.

8 But all of these things we have to -- the
9 failsafe state is really what we have to consider. And in
10 addition to that, we have to consider actuation time; how
11 fast do we want this to open, and how fast do we need it
12 to close. All of those things are -- take a lot -- a lot
13 of thought and -- and if you have a valve, for example,
14 that requires -- it is a bigger valve and requires a high
15 demand and needs to open quickly or close quickly, there,
16 you have to look -- and if we were to convert it to
17 electric, you know, there's an immediate quick amperage
18 draw, you know, it requires a lot of current to -- to
19 actuate that valve.

20 So, in my experience, most people are very just,
21 you know, it's either instrument air conversion or
22 nothing, if they have to -- if they have to. Right? So
23 I'm a little hesitant -- you know, me, personally, I don't
24 recommend electric actuating, you know, for many reasons,
25 including -- but mostly from the failsafe perspective.

1 The other consideration similar to the instrument
2 air compressor is, you know, we've got a lot of -- well,
3 let me first say, you know, it's not just we've got to
4 convert an actuator to electric. You also have to convert
5 the level controllers and basically pressure transducers
6 that were pressure gauges. A lot of instrumentation go
7 along with actuating one valve, you know.

8 You know, you've heard other testimony that, you
9 know, these valves are controlling something. It's
10 either, you know, pressure, temperature, flow rate. So
11 the corresponding measurement device also has to be
12 electric in most cases. So -- so the cost is not just the
13 cost of the actuator, there's more to it than that. And
14 then I have to tie all of that together into some control
15 cabinet where the -- where the valve comes -- leads come
16 into, and the level controller -- the electric level
17 controller leads come into, or pressure. And those PLC
18 cabinets can get pretty expensive pretty quickly. And
19 they, too, have a bottom line cost. Right?

20 You need a cabinet. You know, you need what they
21 call ding rails which are where all the -- where all of
22 the controllers come into on these IO devices. Those PLC
23 cabinets run upward of \$10,000 or more easily.

24 Okay. And then we talk about -- you know, we had
25 talked about in there, solar. Well, when you're talking

1 about solar it's very important to -- it's not just that
2 you have solar panels that power these things directly.
3 You know, they provide to that PLC cabinet, but then
4 provide power to the end devices. Now, what if you had a,
5 you know, a snowstorm or cloudy day? Right.

6 So you actually have to design and have a battery
7 backup. You know, the batteries are usually put in
8 battery boxes that, you know, they have to be sized -- you
9 know, you have to size them for the appropriate amount of
10 days of autonomy, as we call it. So if you want to size a
11 facility that can handle five days of cloud cover, you
12 have to have enough batteries to last you that entire
13 time.

14 So there's a lot to consider. And, of course,
15 all of these devices: the control cabinet and the battery
16 box, all of those need to be mounted off the ground and so
17 that requires some structural and some civil work. So the
18 costs -- the costs for all of these things, you know, if
19 you just look at the cost of an actuator -- an electric
20 actuator, that's just the tip of the iceberg when it comes
21 to facility design.

22 And, again, just like the instrument air
23 compressors, you've got a lot of single-point failures in
24 that system. Right? You have breakers and fuses, where
25 if they, too, fail inadvertently, or, you know, by design,

1 it kind of would require -- you know, you have a facility
2 shut down and the same -- same consequences as the
3 instrument air system, you could be having more emissions
4 from thermal breathing than you probably would have saved
5 just keeping it on instrument gas.

6 Now, how much that -- how will you quantify that,
7 is kind up to the facility engineer to do that, but these
8 are all things that we all have to consider when we're
9 talking about major infrastructure change like this.

10 I believe that concludes my direct, Mr. Hiser.

11 Q. Okay. Did you also prepare some surrebuttal?

12 A. I did.

13 Q. Why don't you take this down and switch to that,
14 and we will do your surrebuttal as well.

15 A. How do I stop sharing? Oh, there it is, the big
16 stop sharing button.

17 Okay. And so, the first part of your
18 surrebuttal, then, you evaluated some of the commentary
19 that you received in rebuttal from the other parties,
20 challenging whether the 13.5 or 3.5 standard cubic foot
21 per hour, which sometimes you call "scf" per hour, and
22 this is your evaluation of that testimony; is that
23 correct?

24 A. Yes. We start off with that, yep.

25 Did you have questions? I'm sorry.

1 Q. No, go ahead. I mean, what did you conclude
2 based on the commentary from Dr. McCabe and others?

3 A. I guess the conclusion of -- which kind of plays
4 through this is, you know, which one is more suitable.
5 And, you know, I will say that I just inherently have --
6 I've always had issues with -- with these emission
7 factors, in terms of -- for several reasons: one, because
8 there's no kind of distinction between malfunctioning
9 versus as designed emission factor.

10 In addition, I understand there is always a
11 very -- a statistical approach that is always taken, you
12 know, we're going to go evaluate all of these facilities,
13 all of these pneumatics and try to quantify an emission
14 factor. But as a kind of a designer of facilities, I
15 would say that there's a lot that goes into determining
16 that.

17 I think you pointed it out earlier, where you
18 weren't sure if a couple of data points were
19 malfunctioning or properly operating. But, you know, what
20 things go into evaluating, you know, how much -- what is
21 the consumption of gas that a pneumatics valve uses.
22 Right? There's several. There's several things that go
23 into that. And I never see any studies that talk about
24 that.

25 And so, the problem becomes, if you take the

1 statistical approach to evaluating all of the emission
2 factors from all of these devices, but then you try to use
3 that as a -- saying what a root cause is or why something
4 is lower in one state versus another, if you don't know
5 how the system is operating or, for example, is it on a
6 plunger well or not -- and I'll get to that later -- how
7 can you say, you know, it's applicable to one state or
8 another?

9 So, to me, my -- my thought -- and this is on
10 this slide, is that, to my knowledge, there's no studies
11 in New Mexico that would evaluate pneumatics from a
12 facility-engineering perspective. So until that time, I
13 always consider -- I consider both of them arbitrary.

14 So the pneumatics memo that we put together was
15 just to highlight the latest studies that were done from
16 an environmental engineering perspective, but to this day,
17 nothing has really satisfied me, in terms of from a
18 facility design perspective.

19 I guess I'm halfway through the slide, so I'll
20 just keep going. So, you know, I think Dr. McCabe had
21 said that, you know, in some of his rebuttal testimony,
22 that he didn't believe the 3.5 was appropriate -- or that
23 that 3.5 scfs per hour was appropriate for Colorado
24 because of, you know, more regulations, more frequent leak
25 detection or repair, and just a general, more aware --

1 awareness of emissions in Colorado.

2 You know, which brings to the -- you know, my
3 fourth bullet here, which is if we were to implement very
4 similar stringent LDAR at these facilities in New Mexico,
5 wouldn't we perhaps in a few years be seeing that we are
6 trending toward the 3.5 scfs per hour. Again, not -- not
7 disagreeing with -- you know, not trying to dog any kind
8 of approach -- statistical approach, but if we're talking
9 apples to apples, I'm just going to talk apples to apples.

10 So wouldn't we be potentially going toward more
11 of a 3.5 scfs per hour if this LDAR was implemented? But
12 then another kind of point came to mind, which, you know,
13 a lot of these studies were done in, you know, 2015, or at
14 least in the past recent years, I'll say, and, you know,
15 with reference to Colorado. And in -- from 2014 until
16 basically now, there's been a big push toward ozone system
17 analysis on storage tank compliance. Right? Producing
18 emissions from storage tanks.

19 Well, what people don't really know, but which me
20 and my team members do know, is that from and during that
21 time, how we were recommending and the operators were
22 putting smaller valved trims all over the field. What
23 that means is a valve is -- it could be a 2-inch valve and
24 it has an orifice size in it of 1 inch, for example, but
25 to reduce the trim, you're basically reducing the orifice

1 or the hole's diameter that the fluid can go through.

2 Q. And so, basically, what you're saying, Adam,
3 here, is that there were changes in how industry was
4 designing and implementing some of this equipment, that
5 were going on at the same time as the LDAR developments
6 that Dr. McCabe was speaking about?

7 A. Absolutely. And -- and so as a result of the
8 smaller trims, what you see is valves that would -- that
9 used to, say, actuate -- I'll just throw an arbitrary
10 number -- 5 times in a minute, and now with the smaller
11 trims, there's less liquid going through it, a less liquid
12 flow rate and so the valve would stay open for 1 cycle.
13 So I reduced that 5 down to 1 just by trimming down the
14 valve orifice.

15 So, you know, to say that it's a strictly LDAR, I
16 don't know if that's true, but I do know what we were
17 doing for the past seven years has helped the frequency
18 and the amount of emissions out of controllers.

19 So I have a picture here to kind of illustrate
20 that, because I know this is a little technical or at
21 least can be, but the -- if I'm looking at a separator
22 right here, and this is a certain design of separator,
23 where you have an oil bucket and a water bucket, as they
24 call them, and the flow kind of goes up and down in that
25 area, and the level goes up and down in those buckets.

1 Well, when the level goes up, it opens the valve. And
2 when the float goes down to the bottom of its span, it
3 closes the valve.

4 So you can imagine that if I were to take that
5 valve and put a really small orifice or choke-point on the
6 exit of it or inside of it, that when it hit that high
7 level in the separator, it would take a much longer time
8 for that liquid level to go down. And as a result of
9 that, I took something that would have cycled -- again, an
10 example, you know, five cycles in a minute down to one
11 cycle in a minute.

12 This is not intended to confuse anyone, but, you
13 know, as part -- it's to illustrate that as part of the
14 closed-vent system analyses that I've done over the past
15 seven years, that we gained, in my opinion, a much better
16 understanding of the pneumatics and how they work and how
17 they -- how the valve opens and closes, and how the well
18 behavior affects it.

19 And so these equations were developed over time
20 to best quantify the number of cycles in a plunger run or
21 during normal operations. Now, they're not perfect,
22 because in real life, you have slugging and unanticipated
23 events, but at the same time, these have been proven up
24 time and again with actual field data.

25 So, along those same lines, you have this, you

1 know, you have different types of wells and they affect,
2 you know, separators and valves, and then, you know,
3 differently. So, a free-flowing well, you know, if you
4 look at that previous slide, the liquid is coming into
5 the -- into the separator at a pretty constant rate, near
6 constant. What we have observed from doing these
7 closed-vent system analyses and closed-loop vapor control
8 systems, is, you know, they can actuate for 3 to 5 seconds
9 and close -- you know, be closed for 20 to 40 seconds,
10 that's pretty, pretty typical. Again, I'm not saying that
11 every facility is like that, but that's pretty typical.

12 And plunger levels are kind of all over the
13 place, but what we do know is that when you have a plunger
14 well that brings up a large slug of liquid at a pretty
15 fast rate, you know, again, going back to the trim size,
16 if you have a small trim size, that valve will be open one
17 time during that plunger arrival.

18 So, I say all of this to kind of demonstrate that
19 maybe LDAR is not the only reason or that heightened
20 awareness of the pneumatics is the only reason why maybe
21 the Colorado emission factor of 3.5, you know, why it was
22 established at that. You know, there have been other
23 facility design changes in the past seven years.

24 So, here on this next one, it's kind of a
25 calculation. And I kind of think it's, you know, maybe a

1 little too much for this discussion, but the takeaway is
2 that, you know, you can actually calculate the volume
3 of -- a volume within a -- inside a valve actuator. And
4 you can calculate that if I pressure it up to "X" number
5 of psi of gas, you can -- you could literally just say,
6 Okay, when it depressurizes, it lets go of this amount.

7 So, what I noticed in the ERG cost analysis is
8 that they use that 13.5 scfs per hour as kind of like a
9 total op for intermittent controller totalized over an
10 hour. Okay? So, you'll see here you have -- I have
11 some -- an example of a 2-inch valve and the amount of
12 volume that it contains.

13 And over here in this -- on this slide, what I
14 kind of show is that with 13.5 scfs per hour based on what
15 we know of how much is actually contained in those valves,
16 those valves have to cycle 135 times in an hour; or even
17 the 3.5, 35 times an hour. Again, you know, the 135 seems
18 very unlikely to me based off of my observation and
19 testing done in the field. And even 35 is very unlikely.
20 That basically means that valve needs to open for 1
21 second, close for another; open for another second and
22 close for another.

23 But, you know, what we don't know from that 3.5
24 estimate is whether or not that's a failed condition or
25 not. So, again, what I, you know -- what I'm trying to do

1 is look at pneumatics from a facility-engineering
2 perspective, not from an environmental-engineering
3 perspective.

4 Q. And from the facility-engineering perspective,
5 you're saying that given the sizes of the valves and the
6 amounts of gas that are involved, and a reasonable
7 estimate of the number of cycles, it's not going to be as
8 high as some of these studies have suggested?

9 A. That's right. I just can't see it. I don't
10 understand how -- how they came to these numbers. You
11 know, it also kind of plays to a little bit, just kind of
12 a little aside, is that, you know, this is a very good,
13 you know, opportunity for immediate emission reduction
14 from pneumatics. You know, change the trim size on your
15 valve so it doesn't cycle as often. That is something
16 that is very, very doable, and doesn't require an entire
17 instrument air system to do that.

18 Okay. Moving on here, want to discuss a little
19 bit of the going back to the ERG cost analysis. Again,
20 you know, I want to say that it was a very impressive
21 study. So I don't want to dog anyone for that, there were
22 just a few things that we're changing here. Right? So
23 here's a snip of that estimating sheet and, you know, for
24 10 controllers, 40 controllers and 100 controllers, you
25 know, NMED kind of calculated a horsepower requirement,

1 you know, for 4 horsepower, 16.1, 40.2. Now, we can't --
2 you know, we can't order a compressed air system in
3 that -- right, in that size. You have to round up to the
4 nearest 5, 10, 15 horsepower. So what we did was we
5 basically just -- where it said 4 horsepower, we put in
6 our cost analysis for a 5 horsepower system. And for a 15
7 -- I'm sorry, for a 16.1, we put in a 15.

8 So we tried to echo everything that NMED did in
9 terms of their assumptions in order to compare apples to
10 apples. So another part of Dr. McCabe's rebuttal
11 testimony, I believe, was, you know, how did you come up
12 with that horsepower and, you know, the calculations don't
13 make sense.

14 And, you know, what I will say is that, I've
15 been -- you know, we've been -- I've been designing all
16 kind of systems for -- for years and, you know, did 26
17 instrument air systems back at Kennedy Space Center, and
18 did most of them for the senior gas turbine balance of
19 plant systems, and, of course, have done that here in oil
20 and gas.

21 And what I will say is in my travels, that all
22 engineers do the math differently on how they come up with
23 the required amount of instrument air, and by association,
24 the amount of horsepower required. So, some of them do
25 them based off of a known frequency, which is kind of how

1 I like to do it because it understands the -- it shows an
2 understanding of the well behavior. Some people put a
3 meter on the fuel gas system that they're currently using,
4 and then convert it. Right? And then other folks, you
5 know, do a -- they work with the valve manufacturer and
6 they find out what the demand is for that specific valve,
7 then they do a base-load case of "X" number of controllers
8 at a "Y" number of controllers that are out there, and
9 they add in safety -- you know, safety factors and
10 correction factors to it.

11 I will say that I think, you know, all are valid
12 and all are appropriate, but the most important thing to
13 look at is the demand. You know, what are -- what are
14 these valves requiring in a certain amount of time? So
15 that requires a lot of process knowledge. You kind of
16 need to know, you know, what it's supposed to do, what you
17 want it to do.

18 And, you know, so you select the valve and then
19 you estimate the proper opening time and close time for
20 that valve, and you size the actuator and the vent orifice
21 that comes off that actuator appropriately. Right? I
22 have an example here, but it's, in general, just trying to
23 illustrate that, you know, there may be valves where I
24 need it to close in 1 second, but I don't care how long it
25 takes to reopen. So, depending on if that's on the demand

1 or the exhaust side of the valve, kind of dictates, you
2 know, how I size for my demand for my instrument air
3 system, and by association what the -- what size
4 horsepower system I need.

5 You know, the point I'm trying to make here with
6 this is that I believe Dr. McCabe was trying to use the
7 environmental engineer approach of these emission factors,
8 these emission rates, to kind of extrapolate what a -- the
9 horsepower of an air compressor would be, but the point is
10 that the demand rate is not the same as vented rate,
11 because you need to know your specific process conditions
12 and what your valve can do. So, you know, at the end of
13 it, though, what I would like to illustrate again, is that
14 regardless of how Dr. McCabe performed the sizing, or me,
15 or, you know, Joe Smith, facility engineer, really,
16 there's very -- there's like commercially available
17 electric motors. You know, you can't just get a 3.15
18 horsepower air compressor. You -- you size your system,
19 you add a certain safety factor, and then you round it up
20 for whatever is commercially available.

21 And I think NMED, you know, almost -- almost got
22 to that point, but it -- they got close, but it's
23 basically -- the cost estimates we had put in there were
24 based off of those rounding to the nearest 5, 10, 15, et
25 cetera, horsepower.

1 Q. Is that your final slide, Adam?

2 A. I believe so.

3 Q. Okay. So the point that you were trying to make
4 through this for the Board is that you tried to look at
5 the actual requirements for system design in coming up
6 with your cost estimates?

7 A. Yes, and to basically vet the NMED assumptions of
8 the 4, 16.1 horsepower and those things, and we found the
9 commercially-available ones that were in that range.
10 That's how we -- how I did it, again, so we could compare
11 apples to apples.

12 Q. So that you were using the commercially-available
13 equipment that you could actually go out and buy, correct?

14 A. Yes.

15 Q. And that you also tried to add into the cost,
16 where appropriate, the other parts of installation that
17 are required; things like tubing or logic controllers,
18 things of that nature that are part of any of these system
19 designs?

20 A. Yes, with one caveat; that we -- we kept
21 installation costs at 50 percent, you know, basically
22 man-hour frame time, and we kept that at 50 percent of the
23 capital costs. And we did that, again, not that we agree
24 with it in all cases, but that is what NMED used. And so,
25 again, trying to eliminate the number of variables we're

1 trying to debate her.

2 Q. You did not include some of those costs; you
3 accepted the 50 percent of the total cost?

4 A. Correct, I didn't go out to quote formally for
5 any mechanical contractor and what their bids would be.

6 Q. Okay. Well, thank you for that. Probably more
7 than anybody wanted to know about facility design.

8 A. I'm sure.

9 Q. But hopefully that will help answer questions
10 from Board members about some of the factors that go into
11 these decisions.

12 MR. HISER: Madam Hearing Officer, we're happy to
13 provide Mr. Meyer now for questions from other parties.

14 HEARING OFFICER ORTH: Thank you, Mr. Hiser and
15 Mr. Meyer. Parties, counsel, if you have questions of
16 Mr. Meyer, please turn on your camera.

17 MR. BAAKE: Madam Hearing Officer, we do.

18 HEARING OFFICER ORTH: Mr. Baake. Sorry.

19 MR. BAAKE: Can you hear me okay?

20 HEARING OFFICER ORTH: Yeah. You're going to
21 have to lean forward, though.

22 CROSS-EXAMINATION OF ADAM MEYER

23 BY MR. BAAKE:

24 Q. Thank you, Mr. Meyer, very interesting stuff. I
25 will do my best to try to make sense of it. So I'd like

1 to start by going to a point, I think it was on your very
2 last slide there.

3 A. Sure.

4 Q. And I'm trying to understand this. I think you
5 said the demand rate is not the same as vented rate; is
6 that correct?

7 A. Yes.

8 Q. So we're just trying to understand this because
9 as you -- as you alluded to, Dr. McCabe, in his analysis,
10 said, you know, I went through and looked at the capacity
11 of these compressor systems that were included in the
12 economic analysis and said, well, it looks like they're
13 producing, you know, in some cases 30 to 80 times the
14 amount that is actually going to be vented from the
15 controller, so it seems they're oversized.

16 But your point is that, some of the air is not --
17 you need some air that's not going to be used to actually
18 actuate the controller; is that correct?

19 A. I think I know where you're going with this. And
20 if you're okay I could -- the difference becomes in how
21 we -- how we talk about rate. Right? The vented rate,
22 like the immediately, when I depressurize that actuator,
23 what is that instantaneous rate? Right? What is that
24 flow -- right -- versus, if I total up the amount of gas
25 based on all of the actuations from that valve in an hour,

1 what's the volume in that hour. Right?

2 I think that's where the discrepancy is a little
3 bit, and what I was trying to illustrate is that, that
4 momentary rate of bleeding off is, that instantaneous rate
5 is not the same as the demand. Right?

6 If I need to pressurize these -- all of these
7 valves very quickly, but I don't care how quickly they
8 bleed off. Does that make sense?

9 Q. I think it does make sense. So, my question then
10 is, is it -- could you use a tank? Could you store this
11 compressed air so that you have -- you don't have to be
12 generating more than 40 or 50 times more than you need?

13 A. Yes, absolutely. So, yeah, most compressed air
14 systems have an accumulator or a receiver that are, you
15 know, are there so you're not putting too much of a demand
16 on the air compressor to operate immediately. Right? But
17 at the same time, I still need to replenish the air that
18 was in that receiver that was used in pretty quick order.
19 Right?

20 And, again, you know, going back to the
21 difference in the service world -- right -- I always err
22 on the side of the conservatism when sizing these things,
23 and most people do, because the last thing I want to do is
24 get a call that all of my valves stopped because my air
25 compressor has been running around the clock, and

1 overheated and shut down.

2 Q. I -- I understand that. I think this is a
3 helpful clarification. But I guess my -- I would push
4 back on that and say, do you think it's standard practice
5 or -- or good economics to have 80 times the amount of air
6 you aren't going to use over an average period, is that
7 maybe going a little too far in terms of having
8 redundancy?

9 A. Eighty times based on what, the bleed rate?

10 Q. Right.

11 A. That's not -- no, that's not correct. You know,
12 you put in a demand rate for -- based off of the
13 instantaneous flowing need to pressurize that valve, and
14 then you add a safety factor on top of that, and,
15 unfortunately, round it up to whenever is commercially
16 available.

17 Q. But, again, I thought with the tanks, that the
18 instantaneous rate was not -- because you do -- you are
19 able to store it. I'm not sure why the instantaneous
20 rate -- why it's not -- why you can't use the average
21 emissions over an hour, and say what we have, and generate
22 that much air so we have that much in the tank?

23 A. Well, some people -- you know, again, to your
24 point, some people do it in a very quick hurry, when they
25 don't know what the process needs are for that specific

1 valve, you know, they throw in an assumption, you know, 1
2 cubic feet per minute, or whatever it is; they do an
3 estimation of, you know, base load and peak -- right --
4 and then they add a safety factor on to that.

5 But at the end of the day, you know, it's very
6 important to keep in mind that, you know, you can't go buy
7 a 1.15 horsepower air compressor that's commercially
8 available. You usually have to round up to the -- what is
9 available. And, again, the costs for that are -- there's
10 a base model and then you add additional horsepower.

11 Q. No, I totally get that you can't, you know,
12 necessarily custom order, in particular, you know 17.3
13 horsepower or something. I get that.

14 A. Yeah.

15 Q. My point is, it still seems like, you know, the
16 calculations here are assuming either that a lot more
17 capacity is bleeding than the original numbers suggest,
18 that more, you know, many times the amount of gas that's
19 actually going to be needed to being produced. And I
20 understand, you know, that it's -- there's some complexity
21 there, but it seems like perhaps that that, you know, that
22 could be addressed as folks become more familiar with the
23 system, then they could say, well, we don't need to be
24 producing, you know, 80 times the amount of gas that we're
25 actually using on an hourly basis. I don't know if you

1 agree with that.

2 A. Not the 80 number, I'm not quite sure where you
3 keep getting that from, but the --

4 Q. So --

5 A. I understand where you got it from, but I don't
6 understand why that's stuck. The, you know, again, it all
7 comes down to your process conditions, and I can't explain
8 every single circumstance of where you may need a higher
9 demand, or, hey, maybe there's a pneumatic pump
10 involved -- right -- an AOD pump -- right -- consumes 25
11 to 50 scfs per minute. There could be huge demands. And
12 we also have to size facilities, not right on the line of
13 demand, you know, we'd size exactly for the demand if we
14 could -- we've got to also size for expansion. Right?

15 If they're adding another well in the future, if
16 they're adding, you know -- you know, whatever, we have
17 to -- we have to be prepared for that. And,
18 unfortunately, I mean, I understand where your line of
19 questioning is coming, but there's -- there's no simple
20 answer, if that makes sense. It depends on the facility
21 and the demand.

22 Q. Understood. And just for -- for the Board
23 members, the 80 times is coming from Dr. McCabe's rebuttal
24 testimony, pages 15 and 16, where I think we did analysis.
25 And -- and I don't know if you -- do you recall,

1 Mr. Meyer, reading that -- that discussion?

2 A. Yeah, I had reviewed it briefly.

3 Q. Yeah. So I think the discussion there was that,
4 you know, with a 60 horsepower compressor, you'd be
5 getting about 113 scfs per hour per controller, which is
6 about 80 times the emission rate that was used. But I
7 think we've -- we've done some good discussions here.

8 I wanted to also ask about the emission rates. I
9 think that's -- you would agree that the emission rates
10 that are used are a big driver, in terms of the overall
11 cost of the program, right?

12 A. I think a lot of things are, but, yeah. Yep.

13 Q. I think I heard you say at the beginning of your
14 presentation that, really, there is no way we can know for
15 sure what the bleed rate for intermittent bleeders is in
16 New Mexico because there hasn't been a New Mexico-specific
17 study. Did I get that right?

18 A. Not to my knowledge. At least I have not seen
19 them.

20 Q. But I characterize -- I characterized your
21 testimony, right, that that was your testimony?

22 A. Yeah, yeah.

23 Q. Right. So -- and you agree that the emission
24 rates here could conceivably be higher than what was used
25 in Colorado for an intermittent bleed, right?

1 A. They could be, if we're adding malfunction into
2 it, yeah. If there is significant -- if there is
3 significant malfunctions, you know, statewide, that would
4 lead to a larger emission factor. And if we are -- you
5 know, defining emission factor as both the design vented
6 rate as well as any malfunction, then, yeah, I would
7 support that.

8 Q. And you agree that there -- that there are
9 malfunctions?

10 A. Oh, absolutely.

11 Q. And -- and, in fact, the literature documents
12 that -- at least in certain basins, they're quite -- quite
13 common?

14 A. It's -- it is common, but that's why we have
15 those other programs to catch them and fix them, and, you
16 know, like Colorado did and like we're going to be doing
17 here.

18 Q. Is there any reason, if the controllers are
19 malfunctioning a lot and more than their design bleed
20 rate, that you would not factor that in when you're trying
21 to design this program?

22 A. When you're designing the what? I'm sorry?

23 Q. So when you're trying to do your cost analysis
24 and you're trying to say the cost per ton, is there any
25 reason you would not use the emissions that are actually

1 happening in the field? I mean, would that be good
2 practice?

3 A. Well, when it comes to -- okay, cost per ton. So
4 the cost-per-ton analysis is based off of an emission
5 factor -- right -- as well as all of the other equipment
6 that's associated with it. So, I mean, to me, the
7 equipment costs would dwarf any kind of, you know, pretty
8 much everything. I mean, a compressed air system is going
9 to cost you at least \$100,000, if not more, total package.

10 So I guess I'm not quite sure what you're getting
11 at. There's a lot of factors that go into that cost per
12 ton, I would say, in addition to the emission factor. Is
13 that what you're getting at?

14 Q. Well, right. But you know the total number of
15 emissions that you're going to be controlling by the rule,
16 the emission factors how you get there, right?

17 A. "How I get there." Yeah, that would be a
18 starting point, for sure. But, again, I fundamentally
19 disagree with not understanding of how a plunger well
20 works, or how they -- how you can change the air set on a
21 pneumatics valve, to reduce these emissions from the
22 beginning, you know. This is -- I don't know if that
23 makes sense, but switching to instrument air may not be --
24 is not cost effective for some of the stripper wells, or
25 the low-producing wells. Right?

1 And so emission factor really doesn't play in
2 too, too much, I would say, into that; more of the
3 equipment cost is a bigger driver.

4 Q. Well, I thought that the analysis that you did
5 was looking at cost per ton, and looking at how NMED
6 evaluated that. So --

7 A. Yeah. Again, I was being very specific just now
8 to smaller producers. Right? But as a -- as an industry
9 whole, yeah, the emission factor would play into it.

10 Q. And so, if you're doing a -- you're trying to
11 find cost per ton, the number of -- the amount of
12 emissions is the denominator, right?

13 A. Yes.

14 Q. So if you're not using the right emission factor,
15 then your -- you know, your equation is not going to be
16 right? That's what --

17 A. Well, neither is McCabe's -- Dr. McCabe's. If
18 he's using a higher one that's not correct, and I'm using
19 a lower one that's theoretically not correct, neither of
20 us are correct. That's why I said they're both arbitrary
21 until we do a study.

22 Q. Okay. But your testimony is that you -- yeah,
23 that --

24 A. And what I was saying is from a
25 facility-engineering perspective of looking at valve

1 demand, you know, something doesn't add up. You know, I
2 mean, it would be cycling a valve once every second; it
3 doesn't make sense to me from a nonmalfunction
4 perspective.

5 Q. Right. But, again, you reviewed Dr. McCabe's
6 testimony, where he said that malfunctions are incredibly
7 common, did you not?

8 A. Yes, but it was more cost effective to go from a
9 5 horsepower compressor to a 30, or to fix my level
10 controller. Right? Think about that. So there's a
11 certain amount of liters that you actually, you know,
12 incorporate into sizing a system, but I wouldn't
13 automatically just go up and say, I need a bigger
14 horsepower, I'm not going to change my -- fix my leaks.

15 So the LDAR program is going to fix those, are
16 they not? That's what I thought.

17 Q. So -- so I -- I think that you --

18 A. Did I misunderstand you?

19 Q. Huh?

20 A. Did I misunderstand you?

21 Q. So I think the testimony about the LDAR program
22 is -- is different. But I'm just trying to say that, you
23 know, when we're looking at where we are now, and we're
24 trying to figure out the costs and benefits of this
25 program as a whole, including the LDAR and the conversion,

1 does it make sense to ignore the fact that -- that there
2 are a significant number of malfunctions? Because it's
3 not -- I'm trying to understand why we would use the idea
4 of what they emit when they're correctly operating, if the
5 evidence shows that they do not correctly operate much of
6 the time? Maybe you can clarify that.

7 A. You're ask -- so you're asking why wouldn't I
8 incorporate into the cost, assuming that they're all
9 malfunctioning?

10 Q. No, they're malfunctioning at the rate that, you
11 know, these 15 studies that we cited suggest they are.

12 A. That Dr. McCabe was saying the 13.5. Why
13 wouldn't I incorporate that? So that would be on the low
14 end. Right?

15 So what we can easily do is update just the
16 equipment costs in that cost estimate sheet, and even
17 then, it's about 2 -- 2 "X" higher than what was projected
18 by NMED originally. So let's put that -- a good point, to
19 let's put the emission factor to the side, then the cost
20 estimate sheet would still show projected higher costs per
21 ton based on just the equipment alone.

22 Q. Mr. Meyer, in your analysis you did not include
23 the value of the saved gas, did you?

24 A. The value of the saved gas, no. And NMED did not
25 either. They showed it, but I don't think they took

1 credit for it, if I recall.

2 Q. And the emission factor would also bear directly
3 on that, wouldn't it?

4 A. I think the emission factor would bear on -- if I
5 changed it to instrument air, it would have zero emission
6 factor, correct?

7 Q. So what I'm saying is that, the value of -- yeah,
8 the value that you're saving depends on how much you're
9 currently leaking, right?

10 A. Yes, in theory.

11 Q. So if you assume -- if your analysis assumes that
12 we're -- that they're currently leaking -- and I -- I have
13 a number of different numbers, but I think for every
14 minute of air, you said, what was it -- 3. -- 3.5, is that
15 what you said?

16 A. Yeah, that was the reset number.

17 Q. So if your analysis assumed that you were leaking
18 3.5 scfs -- I'm glad I know that -- I can just say "scfs,"
19 it's easier. If you assume it's 3.5 scfs per hour, but
20 it's actually 13, then the value of saved gas, it's, you
21 know, almost 5 times higher?

22 A. Yes, but I think that Mr. Smitherman has already
23 gone over that. That part wasn't part of my assessment in
24 terms of how much, you know, you would be saving from a
25 higher bleed, but I think Mr. Smitherman did, and still

1 the payout wasn't quite there, and I think people
2 generally agree with that. I'm just speculating though.

3 Q. Okay. But -- but that, again, just to be clear,
4 that was not -- there was -- (unintelligible.)

5 A. There's a lot of things in that --

6 HEARING OFFICER ORTH: Hold on, gentlemen. You
7 really do have to speak one at a time.

8 A. Okay. The -- yeah, so there are a lot of
9 parameters, I believe, in that ERG/NMED spreadsheet that,
10 given the time, I think that, you know, maybe there could
11 be future discussions on refining that, but we did not
12 feel based on the time, and also based on what we know.
13 Right?

14 So what do I know? I know how to size systems
15 and I know how to get vendor quotes. So that is what was
16 relevant to my study. Extrapolating that out to how much
17 gas is saved, to your point, that is nothing that I did.

18 Q. Mr. Meyer, if you were doing a -- considering a
19 retrofit for a facility, not in the emissions context,
20 just as, you know, just a project that was devised for
21 some other reason, would it be standard practice to look
22 at, you know, the value of gas that you might capture,
23 that you might have otherwise been able to capture?

24 A. No, usually because, I think it's understood that
25 the amount of gas that you captured is a fraction of a

1 percentage of what a facility would make, and that you
2 can't justify that that gas that you sell is going to be
3 paying off the equipment.

4 So, really, most of the drivers are just, we're
5 switching over to instrument air, either for compliance
6 reasons or otherwise.

7 Q. So your testimony today is that the oil and gas
8 industry does not consider the ability to increase the
9 product it's going to sell, in citing to upgrade the
10 infrastructure?

11 A. No. Well, for me, all I can talk about is the
12 projects I've dealt with, where that hasn't come up in
13 discussion. But I can't speculate on other operators.
14 Maybe they are down to that fine -- the finality.

15 Q. So if a -- if a -- if an upgrade, like, 50
16 percent of the cost might be paid for just by the
17 retrofit, that is not -- in your testimony, it's not
18 something someone should consider?

19 A. If 50 -- can you rephrase it? Can you say that
20 again, sir?

21 Q. So I'm just trying to give you an example. So if
22 you have -- so if you have an upgrade that you want for
23 some other reason, and you're comparing -- say a piece of
24 equipment broke, and you want to upgrade the equipment.
25 And one piece is going to have a slightly higher cost, but

1 is going to pay for itself in gas savings over three
2 years. That's not something that would be considered; is
3 that your testimony? I'm just not -- I'm trying to
4 understand.

5 A. That's not what I'm saying. I'm saying the
6 projects I've been dealing with, usually the cost savings
7 associated with switching to instrument air isn't brought
8 up in discussion.

9 Q. I'm -- I'm -- I was asking a hypothetical, not
10 necessarily instrument versus anything else. But -- but
11 just in general, is that something the industry considers?

12 A. If -- if -- so as a hypothetical, if a -- if a
13 client of mine says that we want to install "X, Y, Z,"
14 because we've calculated that it pays itself back in three
15 years, and then we're making more on gas, are you asking
16 would I do it? Sure.

17 Q. No. I'm asking is if -- is that something that
18 people would consider? Is that -- is that not part of the
19 analysis when you're looking at equipment upgrades,
20 that -- the ability to capture gas?

21 A. It hasn't been a part of the analysis on projects
22 that I've been involved with.

23 On a future project, if that comes to my
24 attention, that that is their driver, then -- and that is
25 their driver for doing it and justification, then, great.

1 But I can't -- I can't speculate on how people
2 have done things on a hypothetical future project. Is
3 that -- am I -- or am I not hearing you right?

4 Q. Yeah. And I guess I'm just trying to understand
5 from the perspective of operating a business --

6 MR. HISER: Madam Hearing Officer?

7 HEARING OFFICER ORTH: Mr. Hiser?

8 MR. HISER: He's asked about five ways the same
9 question. And his basic answer is, I don't know what my
10 clients are deciding on this issue.

11 MR. BAAKE: Madam Hearing Officer, I think the
12 witness is being evasive. This is a very basic question,
13 whether industry considers the value of the product that
14 they're saving. I don't know why I can't get a straight
15 answer.

16 HEARING OFFICER ORTH: All right. So I don't
17 think the witness is being evasive. I think he has
18 answered as to whether it was a practice of clients in the
19 past, in that regulatory landscape or product landscape,
20 and has acknowledged it might change in the future. But I
21 don't -- I don't think he's being evasive.

22 MR. BAAKE: Okay.

23 HEARING OFFICER ORTH: Do you have other
24 questions of Mr. Meyer?

25 MR. BAAKE: One other -- one other question.

1 Q. (BY MR. BAAKE) This relates, again, to emission
2 factors. Mr. Meyer, in your analysis, I believe you used
3 the Colorado estimate for intermittent bleed; is that
4 correct?

5 A. Yes. As I understand it, yes.

6 Q. And did you use the Colorado emission factor for
7 low bleed?

8 A. I did not change low bleed or high bleeds at all.

9 MR. BAAKE: No further questions. Thank you.

10 HEARING OFFICER: All right. Thank you,
11 Mr. Baake.

12 If you're another party with questions of
13 Mr. Meyer, please turn on your camera.

14 I'm not seeing anyone. In that case, I'll turn
15 to the Board for their questions. While I'm doing that,
16 if you're an attendee on this platform and have a
17 question, please reach out through the Chat.

18 EXAMINATION BY THE BOARD OF ADAM MEYER

19 HEARING OFFICER ORTH: Madam Chair, do you have
20 questions of Mr. Meyer?

21 CHAIRPERSON SUINA: Thank you, Madam Hearing
22 Officer. I don't have any questions at this point.

23 HEARING OFFICER ORTH: Thank you. Vice-Chair
24 Trujillo-Davis?

25 VICE-CHAIR TRUJILLO-DAVIS: Yes. Thank you. And

1 thank you, Mr. Meyer, for your detailed testimony. And --
2 and I apologize for the directness of this question. I
3 was just curious if you could just give us -- the Board
4 just some quick bullet points of, like, a summary of your
5 presentation? I just want to make sure we didn't miss
6 anything.

7 MR. MEYER: Okay. Sure. Yeah, there was a lot
8 there, wasn't there? So the -- kind of the highlights of
9 this were, you know, speaking strictly from the
10 emission-factor perspective, you know, Valor thought it
11 was prudent to use the latest studies, so that was used as
12 part of the cost estimating adjustment.

13 In addition, you know, we evaluated the various
14 ways to change-over to instrument air or electric-driven
15 systems, and found that the costs based off of the current
16 market right now, post-COVID, and ramp up of the commodity
17 price, is pretty -- was much higher than what NMED had
18 predicted.

19 As part of the rebuttal testimony, most of it was
20 defending how -- the summary is that defending how, one,
21 there are more emission factors, in my opinion, from a
22 facility-engineering perspective, is much more complicated
23 and it takes someone with an intimate understanding of
24 wells, production and the process in order to ascertain a
25 correct -- a correct emission rate, malfunction excluded.

1 And the second part of the rebuttal was
2 justification for sizing of equipment and how you actually
3 size instrument air systems, and providing technical
4 detail for that.

5 VICE-CHAIR TRUJILLO-DAVIS: Thank you. I
6 appreciate you just summarizing it for us real quick. And
7 I think if I have any more questions I'll be looking
8 through your presentation, so thank you.

9 MR. MEYER: You're welcome.

10 HEARING OFFICER ORTH: All right. Thank you.
11 Member Cates? Member Bitzer?

12 BOARD MEMBER BITZER: Good discussion. No
13 questions. Thank you.

14 HEARING OFFICER ORTH: Thank you. Member Duval?
15 Member Garcia?

16 BOARD MEMBER GARCIA: No questions. Thank you.

17 HEARING OFFICER ORTH: Member Honker?

18 BOARD MEMBER HONKER: No questions. Thank you.

19 HEARING OFFICER ORTH: Thank you. Let's see.
20 I'm checking the Chat. I don't see a question there,
21 although I thought I might get one there. Let me -- oh,
22 Madam Chair?

23 CHAIRPERSON SUINA: Yeah. And I appreciate your
24 testimony, Mr. Meyer, and the extensive cross and also
25 Vice-Chair's question. So, given the summary that you

1 provided in response to Vice-Chair's question, so, really,
2 it just sounds like we don't have really good estimates
3 here in New Mexico as to the emission rate. I mean, the
4 studies that were provided were for other facilities
5 outside of New Mexico, and we have yet to do those for New
6 Mexico is what it sounds like. Is that -- is that
7 accurate?

8 MR. MEYER: Yes, to my knowledge, the -- there
9 has been no study, to my knowledge. And based on how
10 other studies have gone, I would do them differently,
11 basically.

12 CHAIRPERSON SUINA: Okay. So -- and then just so
13 I can get my head around it, so in those -- you know, say
14 you were able to do those things, those studies
15 differently, they're still -- you still have questions
16 about how other studies were done; is that correct?

17 MR. MEYER: Well, yes, it is correct, from the
18 perspective of how a facility engineer sizes systems and
19 analyzes systems, versus an environmental engineer. I
20 think it's just two different disciplines. And to provide
21 an accurate cost estimate and value summary, I would need
22 to have it be viewed at from a facility perspective, if
23 that makes sense.

24 CHAIRPERSON SUINA: Okay. It does. And I mean,
25 you know, it's like ten different lawyers will look at the

1 same piece of paper ten different ways. Like you said
2 earlier, ten different engineers will look at a system ten
3 different ways.

4 MR. MEYER: Absolutely.

5 CHAIRPERSON SUINA: And it's just what we look at
6 as the assumptions and, you know, what we're modeling, and
7 then, of course, you know, the details. So I appreciate
8 your perspective on this, Mr. Meyer, as well as the others
9 that have provided that -- their perspective as well.
10 Thank you so much.

11 HEARING OFFICER ORTH: All right. Thank you. I
12 did get -- Mr. Meyer, I did get a question in the Chat
13 from a Mr. Herndon. "It seems incongruent that his
14 company doesn't consider the value of the lost gas in
15 their operations, but they consider the value of replacing
16 those systems, which would, without argument, save them
17 products and money."

18 I know you had this discussion with Mr. Baake, or
19 a similar discussion with Mr. Baake, Mr. Meyer. Would you
20 have anything to add?

21 MR. MEYER: Yeah, only from the perspective of
22 that; I'm not an operator, I don't make the decisions as
23 to what drives change at a facility. I can recommend and
24 advise my clients on what is best for reducing emissions
25 while remaining cost effective. That is my role, that's

1 what I do. At the end of the day, though, it's ultimately
2 the operators, the oil and gas company's decision as to
3 why they change something or why they don't incorporate --
4 why they don't account for captured revenue from the gas
5 they would have lost. I'm -- you know, all I can do is be
6 a good, you know, servant of my client and -- and do right
7 by them.

8 HEARING OFFICER ORTH: All right. Thank you very
9 much, Mr. Meyer. And I'm sorry, Theresa. Herndon was
10 H-E-R-N-D-O-N.

11 Mr. Hiser, does any of that prompt for you any
12 redirect?

13 MR. HISER: I think just a little bit on maybe
14 two points, Madam Hearing Officer.

15 REDIRECT EXAMINATION OF ADAM MEYER

16 BY MR. HISER:

17 Q. So, Mr. Meyer, you testified that you reviewed a
18 number of studies, including one from Dr. McCabe that was
19 attached as an appendix to your report; is that correct?

20 A. We -- we compiled the studies and reviewed them
21 in a very high level perspective. You know, it's -- I'll
22 let you ask the rest of your questions -- ask the rest of
23 your question. Sorry.

24 Q. And in the report that you included as Appendix A
25 to your expert report, the one from Dr. McCabe, was one of

1 the things that caught your attention, the report that
2 Dr. McCabe looked at the question of malfunction, and
3 that -- and putting those malfunction emissions back into
4 the emissions estimates in one of the other studies?

5 A. I did not look at it from that perspective. I
6 looked at it strictly from that, here on the environmental
7 side of the world, that it concluded for Colorado, that
8 this emission factor was appropriate, and that's how I
9 read it. That is basically the extent of it.

10 Dissecting it more in terms of deciphering
11 between the accuracy of those studies, including that one,
12 that is not a level that I personally got into.

13 Q. Okay. In terms of the overall -- there was a lot
14 of discussion about volume of air and some discussion
15 about emissions before that. When you were sizing the
16 system, you basically assumed an accumulator wouldn't be
17 appropriate; is that correct?

18 A. Yeah. Well, the costs of -- that we developed,
19 if you remember -- recall the picture in the PowerPoint,
20 there is an accumulator in that skidded system, so the
21 costs were all encompassing for the purpose of those, you
22 know, 5 and 15 horsepower estimates.

23 Q. If you were trying to account for the fact that
24 often operators will use the accumulator in order to avoid
25 having to put in a much bigger compressor --

1 A. Yeah, it's not --

2 Q. -- to contain the air?

3 A. Yes, yes. And, you know, that -- you know,
4 usually you see these accumulators for all systems,
5 regardless if the compressor is a, you know, reciprocating
6 type or kind of a continuous VFD-type of compressor,
7 you'll see that. But as far as I'm concerned, the cost
8 was incorporated in that study package.

9 Q. Yes, thank you.

10 And then, you talked about some of the additional
11 safety factors and air demand that you had to address.
12 Part of that design is you have to assume that some valves
13 may stick at some point in time, and you need to account
14 for that possible loss against your instrument air system;
15 is that correct?

16 A. Yes, that's correct. We have to try to predict,
17 again, the -- any malfunction, and try to size it so the
18 rest of the facility doesn't go down off that one thing.

19 Q. Thank you very much. That's my last question.

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

23 MR. MEYER: Thank you.

24 HEARING OFFICER ORTH: It looks like we can
25 excuse you for the moment. We do need a break. Let's

1 come back at ten of 3, please.

2 (Recess taken from 2:37 p.m. to 2:50 p.m.)

3 HEARING OFFICER ORTH: Let's come back from the
4 break, please.

5 We are back after a short break. As I read the
6 spreadsheet, I believe next we'll hear from witnesses
7 Davis for IPANM, and Holderman for Oxy, but let me
8 double-check. Mr. Rose?

9 MR. ROSE: As to IPANM, yes, Mr. Davis will
10 testify.

11 HEARING OFFICER ORTH: Have I already made him a
12 panelist?

13 MR. ROSE: I can't speak for Oxy.

14 He's -- he's already -- I think I saw his --

15 HEARING OFFICER ORTH: Got him. All right.
16 You're still under oath, Mr. Davis.

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

18 JEFFREY "RYAN" DAVIS,
19 having been previously duly sworn or affirmed, was
20 examined and testified as follows:

21 DIRECT EXAMINATION OF JEFFREY "RYAN" DAVIS

22 BY MR. ROSE:

23 Q. Okay. For the Board, we're talking about IPANM
24 Exhibit 1, which is the proposed modifications, IPANM
25 Exhibit 2, which is Mr. Davis's written direct testimony,

1 and IPANM Exhibit 10, which is Mr. Davis's rebuttal
2 testimony. And they've been -- already been admitted into
3 the record.

4 Mr. Davis, could you briefly summarize your
5 direct and rebuttal testimony for the Board?

6 A. Yes, sir. So in the spirit of trying to expedite
7 this, I'm going to try to just hit on the points that I
8 don't think have been covered yet by the previous parties.

9 I believe the Department, as well as Clean Air
10 Advocates and NMOGA covered the purpose of pneumatics, and
11 the only thing that I really wanted to highlight there is,
12 you know, just the importance that pneumatic controllers
13 have in terms of our field separation and process control.

14 The pneumatics-driven control has been utilized
15 in the industry for many, many years. It's a
16 tried-and-true technology and most of these sites are in
17 remote areas, and that being the reason that pneumatics
18 control is utilized.

19 Moving on, I wanted to start off with my summary
20 here just on the proposed changes that IPANM made to the
21 rule that was before the Department. NMED had based,
22 roughly, this proposal on Colorado Reg 7. The differences
23 are primarily where the basis for our changes lay. NMED
24 proposed to phase out pneumatics based on a controller
25 count, versus production.

1 Colorado, as we've heard already, has the basis
2 for retrofit or phase-out based on percent of production.
3 So IPANM proposed moving toward the percent of production
4 phase-out instead of the controller count. The other
5 piece that we -- we see that's missing from Colorado Reg
6 7, that's already been mentioned as well, is the
7 flexibility that Colorado Reg. 7 had for small producers.
8 So IPANM is proposing to put that flexibility back in.
9 And that flexibility was -- was based on production, and
10 it was based on a company-wide -- a company-statewide
11 average production. And we feel like that's critical for
12 relief for the smaller producers and the lower-producing
13 wells.

14 In addition to those two changes that we
15 proposed, we proposed to encourage the use of intermittent
16 controllers. The justification, we've already heard quite
17 a bit about intermittent controllers, it's not a surprise.
18 I was pretty sure this was going to be a hot topic, but I
19 think one -- one point that I want to highlight, and
20 Ms. Kuehn highlighted this earlier, but one of the key
21 differences on an intermittent controller is, it does not
22 continuously bleed natural gas during normal operations,
23 but bleeds back the actuation gas after the actuation has
24 taken place.

25 So an intermittent controller, it's very

1 difficult, as we've already heard, to, you know, quantify
2 a bleed rate, as these are not a continuous-type bleed
3 controller. But we feel like, you know, most of the
4 modern controllers out there are intermittent-type
5 controllers. And, in fact, based on the inventories that
6 the NMED had in their analysis, intermittent controllers
7 seemed, you know, to make up a large count in New Mexico.

8 And these controllers, as Mr. Meyer discussed
9 earlier, are tied to frequency of actuation in terms of
10 the emissions associated with them. So this was one of
11 the other reasons that we felt that it was important to
12 move the phase-out or retrofit to percent of production.
13 With your intermittent controllers being based on their
14 actuation frequency, that's tied to the throughput on a
15 vessel or the production.

16 And so, it seems to make sense that -- to tie the
17 two together, as you phase out pneumatic gas-powered -- or
18 gas-driven pneumatics based on production, you would be
19 getting the best bang for your buck in the terms of the
20 phase out. As well as, you know, the point I believe
21 Mr. Meyer was trying to make earlier, you know,
22 intermittent controllers in and of themselves could be a
23 reduction made, as we move from the low-bleed continuous.
24 You know, there's reductions -- cost effective reductions
25 associated with the use of intermittent controllers.

1 The basis for our proposed changes were really
2 surrounding the cost effectiveness of reducing these
3 emissions. We -- we have concerns with -- with the
4 pneumatics phase-out, just in terms of its burden to
5 industry with -- and that being associated with the, you
6 know, somewhat small reductions that may be made to
7 ambient ozone concentrations, resulting from the
8 reductions of VOC emissions.

9 And so, one of the things that really drives the
10 cost effectiveness in controlling the emissions from
11 pneumatics, as Mr. Meyer indicated earlier, is the cost of
12 that control. One thing that I wanted to touch on, I
13 think Mr. Meyer's already went through this in pretty
14 great detail, but I just wanted to kind of summarize, you
15 know, instrument air installations. I think sometimes it's
16 characterized as kind of a plug and play-type retrofit.
17 And instrument air, especially on a retrofit-type
18 application, is relatively involved.

19 You have the design and packaging of the air
20 package, as Mr. Meyer went through. And then, once that
21 package is -- is delivered to the site, you've got to set
22 that air package and you've got to set it with the
23 appropriate setbacks from other equipment or possible
24 emissions sources on the site. And with that, then you're
25 trenching in the air lines and power to that instrument

1 air system. And so, instrument air is quite involved, in
2 terms of the overall installation and the associated costs
3 with it.

4 One of the big driving factors and one of the
5 concerns that IPANM has in terms of instrument air is
6 access to line power. We have a limited infrastructure up
7 here in the San Juan Basin, and wanted to touch on that a
8 little bit. It was something that -- that I outlined in
9 my rebuttal testimony. But, again, access to line power
10 is -- is something that we believe is necessary for the
11 installation of instrument air, and the engagement that
12 we've had with some outside consultants, you know, gave us
13 some general costs associated with installing power.
14 Average line drop costs that we were given are anywhere
15 from 200- to 300,000, and that includes the transformer
16 bank switches.

17 And then we have a distribution network build-out
18 cost that runs somewhere in the 300- to \$325,000 per mile,
19 and terrain being one of the most significant factors in
20 terms of getting line power to where it's needed. One
21 thing that -- that I wanted to mention in terms of line
22 power is, you know, utility providers operate in what I've
23 heard termed as the just-in-time development manner;
24 meaning that, they do not run with excess capacity or
25 infrastructure deployed. They -- you know, even though we

1 may see power lines running next to a site, that doesn't
2 mean that there's available power on that line. You know,
3 it would take additional capacity and infrastructure
4 installations to actually get line power to these sites.

5 The other issue with line power that we see is
6 right-of-way acquisition. Specifically up here in the San
7 Juan Basin, toward the southern part of the basin we have
8 kind of a checkerboard-land surface ownership situation,
9 so securing right-of-way for power lines can be a
10 challenge. You could be dealing with multiple entities.
11 You've got the Bureau of Land Management, you've got the
12 state land office, you've got tribal lands as well as
13 private, so securing right-of-way can be a challenge.

14 So, the other piece that I wanted to touch on is,
15 you know, based on NMED's proposal, they evaluated two
16 control technologies associated with reducing emissions
17 from pneumatic controllers. The other one was a
18 solar-electric-type installation, and what I -- what I
19 want to focus my discussion on here is primarily my
20 experience regarding solar-electric. The point that I
21 want to start off with is, there are two primarily --
22 primary types of actuators that are common in the oil and
23 gas industry, in terms of electric actuators. And you've
24 got rotary electric and linear.

25 Rotary electric are less costs -- costly, but

1 they have their drawbacks. As Mr. Meyer's talked about
2 earlier, when we're looking at a facility, we have to look
3 at what our process response time is. Rotary electrics
4 tend to have a slower response time. And, you know, my
5 experience here, we deployed some all electric separators
6 up here in the San Juan Basin, that had rotary electric
7 dump valves for moving fluids from the separator to the
8 tank. And what we found was, it took a lot of fine-tuning
9 with that rotary electric to get it to where we weren't
10 leaving the dump valve open too long, because, ultimately,
11 it was sending more gas to our tanks. And so we found
12 that, you know, in some instances, the increased emissions
13 at the tank were more than what we had offset with the
14 conversion to the solar-electric system.

15 And then, as we concluded, that pilot up here in
16 the San Juan Basin, you know, the linear actuators were --
17 were just start being to become available in a reasonable
18 cost fashion. Linear actuators can provide that response
19 time that's necessary. The issue that we see with those
20 is their power consumption.

21 Again, trying to match our process control times,
22 those linear actuators can be relatively power-intensive.
23 And just recently, I had -- I had one of them quoted, and
24 the vendor up here in the San Juan Basin said that he's
25 not aware of any operator in the San Juan Basin -- San

1 Juan Basin utilizing those that don't have access to line
2 power; that they are not -- from his understanding,
3 they're not suitable for use with solar installations.

4 I apologize, I'm jumping along here. I've tried
5 to mark off what's already been covered. We dove into the
6 emission factors regarding intermittent controllers, and I
7 think for the most part that was covered pretty well. I
8 just wanted to highlight the fact that IPANM, you know,
9 testified that we felt like the 13.5 was based on an
10 outdated emission factor from the EPA. And, you know,
11 that EPA study that was used to develop that factor had a
12 small number of measurements that was taken, and that was
13 done, I believe, over 25 years ago.

14 We believe there's more recent studies that have
15 hundreds of measurements that show that the intermittent
16 controllers are anywhere between .32 standard cubic feet
17 per hour, to 2.2 standard cubic feet per hour. And,
18 again, assuming that they're properly functioning. And
19 then, we also noted that Colorado Air Quality Commission
20 recently utilized the 3 and 1/2 standard cubic feet per
21 hour.

22 And so, one -- one thing -- and I'll touch on
23 this later when I say properly functioning, I am
24 acknowledging that there are malfunctions associated with
25 intermittent controllers, but we do believe those can be

1 addressed through the proper monitoring programs. So,
2 one -- one thing that I wanted to touch on in this, is
3 regarding the current structure that the NMED has put
4 forward. There are two off-ramps in the current proposal:
5 122 B (4) 6 has the cost effective off ramp. This was
6 discussed earlier, where if an operator retrofits 65
7 percent of their entire controller count by 2027, they may
8 submit a cost analysis to the Department, showing that the
9 remaining controllers are not cost effective to retrofit,
10 and we do appreciate this.

11 The other off-ramp in there is 122 B (4) (v,)
12 where an operator, if they achieve 75 percent of their
13 fleet, in terms of retrofitting by 2025, that's as far as
14 they have to go. Again, very, very appreciative of these
15 off-ramps. The -- the concerns that we have is this --
16 this doesn't give the necessary relief for smaller
17 operators. You know, by the time you get to both of
18 these, you've had to retrofit 65 to 75 percent of your
19 entire pneumatic controller fleet. And so, to me, this
20 recognizes that -- or this is the Department's recognition
21 that, you know, there are some controllers out there that
22 may not be cost effective to retrofit, and we're just
23 concerned that this does not account for those smaller
24 operators where their entire portfolio may be marginal
25 wells or stripper wells. So that's another reason that we

1 have put forward our modifications to -- to incorporate
2 the relief that Colorado Reg. 7 has.

3 And our biggest concern here is, you know,
4 without that appropriate relief, you've got the premature
5 plugging and abandonment of thousands of wells in the
6 state, and that has its associated negative impact on the
7 local communities, in terms of lost jobs, royalty, and tax
8 revenue.

9 I wanted to talk a little bit about the Colorado
10 Reg. 7. I mentioned earlier that it's the relief that is
11 spelled out in Colorado Reg. 7 is a company statewide
12 average daily production. So it's not a blanket
13 exemption. It's a company that can prove that their
14 statewide average daily production is less than 15 BOE.
15 And I believe this strikes a good balance here to provide
16 relief for those smaller operators, again, that, you know,
17 may find their portfolio is primarily stripper wells.
18 This would provide the necessary relief, where they're not
19 having to go through and retrofit wells or pneumatic
20 controllers that are not -- that are not cost effective to
21 do so.

22 So, I would say at this point I'm going to be
23 moving into my rebuttal or surrebuttal.

24 Is that okay, Lou?

25 Q. Yes. Go ahead. In response to -- first, did you

1 review the rebuttal testimony provided by the other
2 parties on this topic?

3 A. Yes, I did.

4 Q. And did you hear the testimony -- the testimony
5 given earlier today from the Department, from the Clean
6 Air Advocates and from NMOGA on this topic as well?

7 A. Yes, sir, I did.

8 Q. And do you have any comments on -- on that
9 testimony, and did it change any of your proposals before
10 the Board?

11 A. I've got a couple of comments there. I would say
12 that, overall, you know, our -- our primary concern here
13 was -- was trying to strike a balance with relief for
14 those smaller producers, so that hasn't changed. I do --
15 do recognize that New Mexico needs to do what's best for
16 New Mexico, you know, basing the phase-out on percent of
17 production may not be the best approach. We felt like it
18 was because it aligned with the use of intermittent
19 controllers and them being -- their emissions being
20 associated with the production levels. But I would say,
21 overall, whether we phase out pneumatic controllers on
22 controller count or percent of production, we primarily
23 want to see some relief for the smaller operators. And I
24 wanted to kind of walk through some of the rebuttal
25 testimony and the testimony that -- that was presented

1 today, and kind of a response to that.

2 So, the first part, you know, we -- we talked or
3 we heard from the Department and just looking at their
4 rebuttal testimony, and just for the benefit of others,
5 I'm referring to the Department's rebuttal testimony one,
6 and I believe it's on page 85. The Department stated,
7 "The Department also chose a different approach to
8 addressing economic impacts on small operators than
9 Colorado. Rather than exempting low-producing wells from
10 regulatory requirements as Reg. 7 does, NMED proposed a
11 scaled-back regulatory requirement to provide relief to
12 small operators."

13 I wanted to respond to this because this ties
14 back to what I testified on earlier, in terms of the small
15 business. We struggled to try to come up with the
16 appropriate relief, and one of -- our initial approach was
17 to try to focus on getting the appropriate relief in the
18 individual provisions. And I think this is a great
19 example of that, where we believe the appropriate relief
20 would be here in pneumatics and being able to exempt those
21 companies, as Colorado did, in terms of their company's
22 statewide average daily production being less than 15
23 barrels of oil per day, because that comes back to, you
24 know, a company doesn't necessarily make decisions on a,
25 you know, company-wide revenue basis, but more so on an

1 individual well basis.

2 And so, when you're looking at pneumatics, it has
3 a significant upfront cost of compliance and has the
4 potential to burden a lot of these stripper wells. And
5 having that specific relief for those wells, we think is
6 important, because those decisions, again, are made on an
7 individual well basis, not necessarily the company
8 gross-revenue basis.

9 Moving on, I believe it was EDF in their
10 rebuttal -- and I apologize, I don't have the witness
11 noted here, but it's Exhibit XX, page 55. And the
12 acknowledgment here was that they agreed with -- with me
13 in my direct testimony about properly functioning
14 intermittent controllers being less than the 3 and 1/2
15 standard cubic feet per hour; however, they noted that
16 malfunctioning intermittent controllers can emit
17 significantly more. And then they also reference that as
18 why EDF has proposed that New Mexico require operators
19 periodically inspect controllers during LDAR inspections.

20 My initial response to this was, you know, we've
21 got AVO requirements, both from the Oil Conservation
22 Division, as well as what is proposed here by the NMED.
23 But I -- I would say that industry is supportive of doing
24 leak detention and repair on our pneumatic controllers.
25 And, you know, if that eliminates that concern, I think

1 that's a win/win. We've got a method to secure
2 reductions, in terms of encouraging the use of
3 intermittent controllers, while ensuring that they're
4 properly functioning through the proper monitoring
5 protocols.

6 Moving on to Clean Air Advocates, Dr. McCabe,
7 it's Exhibit 23. I'm not going to read the entire
8 testimony here, just summarize it, but my understanding
9 from Dr. McCabe's testimony here was he was highlighting
10 why the Colorado Reg. 7 exemption for small producers
11 isn't applicable in New Mexico. And he states that in --
12 in Colorado, there were 187 operators that were below the
13 15 barrels of oil equivalent. And gives the well count at
14 15,411 wells, and that that is 30 percent of the total
15 well count in Colorado.

16 And then, further, goes on to show that in New
17 Mexico there are an estimated 312 firms that produce less
18 than the 15 BOE per well per day in New Mexico, and they
19 operate an associated 32,000 wells, which he showed to be
20 57 percent of the total well count in New Mexico.

21 And I agree with -- with the numbers that he's
22 put forward. I ran similar numbers, and they're in the
23 same ballpark here. I just disagree with his conclusion
24 that it's not appropriate in New Mexico. I believe that
25 these numbers show that it is very appropriate, that we

1 have 32,000 wells here that are in need of relief. And
2 without the proper balance of relief in the provision,
3 those wells stand to be prematurely plugged and abandoned.
4 And again, as I mentioned, this has a very negative impact
5 to our local communities in which we operate: loss of
6 jobs, taxes and royalty revenue.

7 One of the other things that I wanted to address
8 in surrebuttal here is the discussion that we just kind of
9 moved out of, in terms of the gas captured and sold. I
10 did a quick calculation just based on the 3 and 1/2
11 standard cubic feet per hour, and came up with .084 mcf
12 per day. For everybody's benefit, mcf is 1000 cubic feet.
13 That's the metric that we use to quantify gas production.
14 But if you multiply that out over an entire year, that
15 would be 30 mcf per year, per device. And if you multiply
16 that volume by \$5, just to make the math easy, that's \$150
17 a year.

18 And I think the point to be made here is, I mean,
19 we're in the business, especially if we're operating a gas
20 well, of capturing and selling every bit of product that
21 we -- that we can. The point here is, it's a very small
22 volume. I took that and just compared it to the upfront
23 cost of a solar-electric actuator, and that's less than 4
24 percent of the cost of that actuator.

25 And in terms of an instrument air installation,

1 you know, assuming that an instrument air system -- and
2 this is kind of based on my experience -- would service 20
3 devices, you know, that comes up to be about 12 grand a
4 year, which -- which is a significant amount of money.
5 But when you compare that to the cost of just the
6 instrument air, not necessarily installation or anything
7 of that nature, that's 3 percent of that cost.

8 So, again, one of our -- our primary concerns,
9 you know, with the rule as it has been proposed, is it's
10 got a high cost of compliance, and we believe that there
11 needs to be necessary relief for smaller operators.

12 Ms. Kuehn today, mentioned that no other party
13 had -- had set out their clear proposal or justification.
14 And I just wanted to respond to that; I felt like IPANM
15 was clear that there is a need, you know, to have the
16 appropriate flexibility in the regulation, and we believe
17 that that was -- or could be achieved with the phase-out
18 of pneumatic controllers based on production, coupled with
19 the use of intermittent bleed controllers, and including
20 that low-producer exemption. That provides the best
21 balance, in terms of flexibility. And, again, that's --
22 that's based on the fact that intermittent controllers are
23 prevalent in the state based on the EPA's greenhouse gas
24 reporting data, and that intermittent bleed emissions are
25 based on actuation frequency, which is dependent upon

1 production volume.

2 So, Lou, I believe that's all I have.

3 MR. ROSE: Okay. And Madam Hearing Officer,
4 Mr. Davis is available for questioning.

5 HEARING OFFICER ORTH: Thank you very much.
6 Other parties or counsel with questions of Mr. Davis,
7 please turn on your camera.

8 I'm not seeing anyone.

9 I'll turn to questions from the Board. While I'm
10 doing that, if you're an attendee on this site, please
11 reach out through the Chat with any questions.

12 EXAMINATION BY THE BOARD OF JEFFREY "RYAN" DAVIS

13 HEARING OFFICER ORTH: Madam Chair?

14 CHAIRPERSON SUINA: Thank you, Madam Hearing
15 Officer. I don't have any questions at this point.

16 HEARING OFFICER ORTH: Thank you. Vice-Chair
17 Trujillo-Davis?

18 VICE-CHAIR TRUJILLO-DAVIS: Thank you. I just
19 have a couple of quick follow-up questions. Mr. Davis,
20 you said something kind of interesting about the BOE
21 versus revenue for the small businesses. Can you -- first
22 of all, can you help out the Board by explaining BOE, and
23 then maybe kind of just go into that a little further. I
24 thought that was an interesting concept.

25 MR. DAVIS: Yeah. So, I apologize, I tend to use

1 acronyms there and forget that folks may not know what I'm
2 talking about. BOE is barrel of oil equivalent. And so,
3 we -- we tend to roll up natural gas into an oil energy
4 equivalent. So by -- by MMBTU equivalent, the conversion
5 is 5.7, I believe; a lot of times folks use 6.

6 But you're rolling up gas and making it
7 equivalent to the same volume of oil. So we use that
8 measure just so we're looking at both production streams,
9 but you've got one measure to look at. Does that clarify
10 that?

11 VICE-CHAIR TRUJILLO-DAVIS: Yes, it does.

12 MR. DAVIS: And then I think your -- sorry.

13 VICE-CHAIR TRUJILLO-DAVIS: Oh, I was saying yes,
14 that does make sense.

15 MR. DAVIS: And then I believe you asked me to
16 explain a little more on the exemption based on, or the
17 flexibility based on the 15 BOE versus gross revenue?

18 VICE-CHAIR TRUJILLO-DAVIS: Yes. It sounds like
19 if a company has mostly stripper wells or marginal wells
20 in their portfolio, that their BOE would be less maybe,
21 and, therefore, it was a different metric for judging a
22 small business?

23 MR. DAVIS: Yeah. So, I would say that's kind of
24 a national standard, in terms of defining this term --
25 these terms get intermixed in terms of marginal or

1 stripper well, but the stripper well, kind of cut-off is
2 that 15 barrels of oil equivalent, and, you know, I feel
3 that that's a better measure. Most wells below that 15
4 barrels of oil equivalent are marginal in nature, so
5 they -- when I say "marginal," I mean they don't have
6 enough margin in terms of, you know, the gross revenue to
7 the expenses that it takes to operate them to comply or
8 to, you know, have excess cash flow for cost of
9 compliance.

10 And so -- and basing it on production versus
11 gross revenue, production is production, it's publicly
12 available. It's not going to fluctuate with commodity
13 prices, though commodity prices do impact the
14 profitability or the margin of a well's production. It's
15 a very consistent, publicly-available metric that can be
16 used to identify wells that may have concerns of being
17 overburdened by cost of compliance.

18 VICE-CHAIR TRUJILLO-DAVIS: Do you currently
19 report your BOE volumes to OCD or to NMED?

20 MR. DAVIS: We do not. We -- we report barrels
21 of oil and our volume of gas produced, but not BOE.

22 VICE-CHAIR TRUJILLO-DAVIS: Okay. And my last
23 question is more of just an infrastructure question. And
24 actually, I appreciated you talking about the power
25 infrastructure earlier. That was one of my questions

1 earlier in the day.

2 But when you're talking about these stripper
3 wells and modifications to them, I've noticed that a lot
4 of stripper wells have older equipment on them. Are there
5 any challenges with retrofitting the equipment on those
6 older wells versus the newer wells?

7 MR. DAVIS: In some cases, you know, in terms of
8 the pneumatics, you know, one thing that my company went
9 through back in, I believe, 2011, somewhere around there;
10 we went through and eliminated all of our high-bleed
11 pneumatic devices.

12 And WellMark actually makes a conversion to take
13 a continuous high-bleed WellMark controller and turn it
14 into an intermittent bleed using a MIZER valve. I
15 apologize, I'm probably getting too technical, but I think
16 this answers your question. You know, the more modern
17 pneumatic controllers, we were able to easily retrofit.
18 The older equipment, there were some challenges in terms
19 of trying to retrofit those. In a lot of instances we had
20 to replace the entire controller. It wasn't an easy
21 conversion to go from, say, a high-bleed to an
22 intermittent-bleed or a low bleed.

23 But across the board within this rule, I would
24 say that it's always the case: Storage tanks is one place
25 that we have concerns where an older tank may not be able

1 to hold the necessary, you know, pressure rating for vapor
2 recovery or controls. It's an older tank, it wasn't
3 designed -- you know, it wasn't necessarily manufactured
4 to the current specs and may have challenges being, you
5 know, vapor tight in terms of being able to operate at
6 those higher pressures necessary for vapor recovery.

7 VICE-CHAIR TRUJILLO-DAVIS: Thank you. I think
8 that's all the questions I have for now.

9 MR. DAVIS: Thank you.

10 HEARING OFFICER ORTH: Thank you. Member Cates?

11 BOARD MEMBER CATES: Yeah, no questions here.
12 Thank you.

13 HEARING OFFICER ORTH: Thank you. Member Bitzer?

14 BOARD MEMBER BITZER: I have no questions. Thank
15 you.

16 HEARING OFFICER ORTH: Thank you. Member Garcia?

17 BOARD MEMBER GARCIA: Yes, thank you. One
18 question, Mr. Davis. I think you said that the Colorado
19 Reg. 7 had the cut-off of less than 15 BOE per day. And
20 15 BOE per day is basically the definition of a marginal
21 well, right?

22 MR. DAVIS: Correct.

23 BOARD MEMBER GARCIA: Could you tell me
24 approximately what percentage of the wells in your area
25 are marginal? I know this varies from year to year, but

1 can you give me a ballpark percentage of the wells that
2 are marginal in the San Juan Basin?

3 HEARING OFFICER ORTH: Mr. Davis, we seem to have
4 lost your video. You can certainly turn it off, if it's
5 on even. Let's see.

6 MR. DAVIS: Madam Hearing Officer, can you hear
7 me?

8 HEARING OFFICER ORTH: Yes. I just turned off
9 your video. Can you hear me?

10 Okay. Mr. Davis is unmuted, but he is clearly
11 having a technological challenge.

12 MR. ROSE: Madam Hearing Officer, he's going to
13 be around, so if we need to put him back on, if the
14 technology doesn't seem to work here shortly, we'd
15 certainly be willing to put him back on to answer Board
16 Member Garcia's questions.

17 HEARING OFFICER ORTH: All right. Well, I'm
18 sorry, Member Garcia. We're not getting him back right
19 away. He is definitely unmuted and his video is off, so
20 I'm not sure what to do. All right.

21 And is that you, Mr. Davis? No? All right.

22 Mr. Janoe, I see you on the screen. If we move
23 now to Mr. Holderman, does that work?

24 MR. JANOE: It sure does, Madam Hearing Officer.
25 Good afternoon. Mr. Holderman's testimony, for the Board

1 is at Oxy Exhibit 2 and Oxy Rebuttal Exhibit 2. We'll
2 cover Mr. Holderman's direct, rebuttal, and in this
3 instance he does have surrebuttal. And consistent with
4 our desire to move things along, we propose doing all of
5 those together. Mr. Holderman has three issues on direct
6 and rebuttal; they are first, an aggrieved compliance
7 schedule Oxy and the environmental groups have proposed.
8 This is the table you've heard a reference to before.

9 Secondly, an exemption for wellhead only
10 artificial lift facilities. And then, third, an agreed
11 clarification with the environmental groups, that certain
12 monitoring results are not evidence of noncompliance when
13 companies find and fix those issues. I'll turn it over
14 here to Mr. Holderman for direct and rebuttal and do the
15 surrebuttal after.

16 HEARING OFFICER ORTH: Thank you.

17 DANNY HOLDERMAN,
18 having been previously duly sworn or affirmed, was
19 examined and testified as follows:

20 DIRECT EXAMINATION OF DANNY HOLDERMAN

21 BY MR. JANOE:

22 Q. Good afternoon, Mr. Holderman. I'll give you a
23 second to get situated there. Could you please summarize
24 your direct and rebuttal testimony for the Board?

25 A. Yes. First, as originally drafted, the proposed

1 rule includes a compliance schedule that requires a
2 certain percentage of pneumatic controllers and pumps be
3 in compliance by specific dates. The NMED-suggested
4 approach creates more of a burden for NMED and operators
5 because it relies on controller count, rather than -- or
6 excuse me.

7 We find that historic liquids production should
8 be the basis for the requirement. Oxy USA suggests that
9 basing the compliance timeline for pneumatic controllers
10 on historic liquids production, as opposed to the number
11 of pneumatic controllers at a site; for example, requiring
12 that the pneumatic controllers with highest historic
13 liquids production be addressed first would better ensure
14 that the pneumatic controllers that are actuated most
15 frequently, and therefore have the potential to emit more
16 often, are retrofitted first.

17 Oxy USA encourages the Department to adopt the
18 language in Exhibit 1 to my rebuttal testimony, which
19 includes a modified implementation schedule with more
20 reasonable timelines, that incorporate elements of Oxy
21 USA, EDF, Clean Air Advocates and NAVA's initial proposals
22 presented in direct testimony, and addresses the parties'
23 implementation concerns.

24 Oxy USA believes this proposal is workable for
25 Oxy USA's New Mexico operations. But I'm not -- I'm not

1 saying whether they're feasible for other operators in the
2 state. I can only speak for Oxy USA as an individual.

3 Second, Oxy USA requests the artificial lifts
4 located on wellhead-only facilities be exempt of the
5 requirement to retrofit with access to commercial line
6 electric power, which allows operators to focus resources
7 to retrofit larger-producing locations which would result
8 in the greatest emissions reduction.

9 The requirement in the proposed rule to retrofit
10 existing pneumatic controllers with access to commercial
11 line power -- excuse me -- commercial line electric power,
12 is problematic for artificial lift controllers located on
13 wellhead-only facilities. Wellhead-only facilities do not
14 contain other production or processing equipment and are
15 often in remote areas. It's not always logistically
16 feasible to electrify these locations due to issues
17 outside of Oxy USA's control, including right-of-way
18 acquisition issues, distance from line power, and the
19 capacity of that electric at a facility. Even without the
20 foregoing concerns, the cost and time can be prohibitive.
21 The cost to run an electrical line in Southeast New Mexico
22 at a facility is around \$200,000 per mile, and with lead
23 times up to a year at present.

24 Third is noted in my rebuttal testimony. Oxy USA
25 understands the additions to Section 22 C, advocated by

1 EFD, Clean Air Advocates and NAVA that applies to the
2 monitoring requirements of Section 116, to pneumatic
3 controllers. The Department's September 16th version of
4 the rule also includes this requirement.

5 Oxy USA supports this addition, but believes it's
6 necessary to add language to clarify that detectable
7 emissions should not trigger enforcement if the
8 owner-operator properly addresses any findings. Oxy USA
9 believes this clarification is necessary because optical
10 gas imaging and methane 21 inspections cannot quantify
11 emission rate.

12 EDF, Clean Air Advocates and NAVA have supported
13 this additional language in their rebuttal proposals and
14 Oxy USA appreciates that.

15 Q. Mr. Holderman, does this conclude your direct and
16 rebuttal?

17 A. Yes, it does.

18 Q. And did you have a chance to review the rebuttal
19 testimony presented by other parties?

20 A. I did.

21 Q. Were you listening today to the testimony
22 earlier?

23 A. Yes, I was.

24 Q. Do you have any surrebuttal points you'd like to
25 raise?

1 A. I do.

2 Q. What are those, please?

3 A. The Department's September 16th proposal
4 establishes a two-year timeline to complete retrofits for
5 existing controllers with access to commercial line power,
6 and allows for pneumatic controllers with a greater than
7 zero bleed rate in certain circumstances.

8 Oxy USA appreciates these updates, but has
9 concerns with the proposals by other groups that would
10 first set a much shorter timeline of six months for
11 retrofits at exiting controllers with access to commercial
12 line power. And second, would adjust the bleed rate
13 threshold to zero for certain requirements in Section 122.

14 The proposed timeline of six months to complete a
15 retrofit for existing pneumatic controllers is unrealistic
16 and does not account for the time needed for engineering
17 design, securing the necessary parts and then completing
18 a -- completing the retrofit operations.

19 Second, as it concerns bleed rates, Oxy USA
20 disagrees with proposals to adjust the bleed rate
21 threshold for several requirements in Section 122, from 6
22 scf to zero 0 scf. It is impractical and unnecessary to
23 impose a bleed rate on all pneumatic controllers.

24 Q. Does that conclude your surrebuttal testimony?

25 A. It does.

1 MR. JANOE: Mr. Holderman is available for
2 cross-examination.

3 HEARING OFFICER ORTH: Thank you very much. If
4 there's another party or party representative with
5 questions of Mr. Holderman. Mr. Hiser?

6 CROSS-EXAMINATION OF DANNY HOLDERMAN

7 BY MR. HISER:

8 Q. Hi, Mr. Holderman. I'm Eric Hiser, representing
9 the New Mexico Oil and Gas Association. I just wanted to
10 confirm that I had heard you say that Oxy had encountered
11 lead times of over -- or up to a year in Southeastern New
12 Mexico in trying to arrange for line power; is that
13 correct?

14 A. That's correct.

15 Q. Thank you.

16 HEARING OFFICER ORTH: Other party or counsel?
17 Ms. Gutierrez?

18 MS. GUTIERREZ: Thank you very much, Madam
19 Hearing Officer.

20 CROSS-EXAMINATION OF DANNY HOLDERMAN

21 BY MS. GUTIERREZ:

22 Q. Mr. Holderman, good to meet you virtually. I
23 have just a quick question. I understood you to say that
24 you evaluated these alternative pneumatic proposals as it
25 relates to Oxy USA's operations only; is that right?

1 A. That's correct.

2 Q. And does Oxy USA operate any transmission
3 compressor stations in the State of New Mexico, as that
4 term is defined in the proposed rules?

5 A. We do not.

6 Q. Okay. So it's safe to say that your analysis and
7 any support of the alternate proposals didn't consider
8 transmission compressor stations?

9 A. That's correct.

10 MS. GUTIERREZ: Thank you, sir.

11 HEARING OFFICER ORTH: All right. Thank you.
12 Any other counsel or party with questions of
13 Mr. Holderman?

14 No?

15 I will turn to the Board for their questions.
16 While I'm doing that, if you're an attendee on this
17 platform and have a question, please reach out through
18 Chat.

19 Madam Chair?

20 CHAIRPERSON SUINA: Thank you, Madam Hearing
21 Officer. I don't have any questions of this witness.
22 Thank you for your testimony.

23 HEARING OFFICER ORTH: Thank you. Vice-Chair
24 Trujillo-Davis?

25 VICE-CHAIR TRUJILLO-DAVIS: I don't have any

1 questions either. Thank you very much.

2 HEARING OFFICER ORTH: Thank you. Member Cates?

3 BOARD MEMBER CATES: No questions. Thanks

4 HEARING OFFICER ORTH: Thank you. Member Bitzer?

5 BOARD MEMBER BITZER: No questions. Thank you.

6 HEARING OFFICER ORTH: All right. Member Garcia?

7 BOARD MEMBER GARCIA: No questions. Thank you.

8 HEARING OFFICER ORTH: And Member Honker?

9 BOARD MEMBER HONKER: No questions. Thank you.

10 HEARING OFFICER ORTH: All right. Thank you.

11 Any follow-up, Mr. Janoe?

12 MR. JANOE: No, Madam Hearing Officer.

13 HEARING OFFICER ORTH: All right. Well, thank
14 you very much, Mr. Holderman and Mr. Janoe.

15 Do I understand now that we move to Mr. Carr, for
16 GCA?

17 MR. ROSE: Madam Hearing Officer, I believe
18 Mr. Davis is available if you want to complete his
19 questioning by Board Member Garcia. The problem, I guess
20 he had when he got cut off, was when he joined, he wasn't
21 a panelist, so you couldn't hear him and he couldn't hear
22 you.

23 HEARING OFFICER ORTH: I've made him a panelist
24 now, so thank you very much. Mr. Davis, you're back on
25 screen. Member Garcia, would you please repeat your

1 question?

2 CONTINUED EXAMINATION BY THE BOARD OF JEFFREY "RYAN" DAVIS

3 BOARD MEMBER GARCIA: So my question was -- can
4 you hear me?

5 MR. DAVIS: Yes.

6 BOARD MEMBER GARCIA: Okay. So my question was,
7 you were interested in the rule 7 in Colorado, with their
8 cut-off of less than 15 BOE per day. So I'm wondering, in
9 New Mexico, could you give me a rough idea of what
10 percentage of the wells in the San Juan Basin are marginal
11 or stripper wells. And I realize this changes from year
12 to year, but generally speaking, can you give me a
13 ballpark?

14 MR. DAVIS: You know, I would say that it
15 probable follows to some degree what the average is across
16 the state, probably a little bit higher; so I would say
17 60, 65 percent of the wells in San Juan are stripper
18 wells.

19 BOARD MEMBER GARCIA: Great. That's exactly what
20 I needed. Thank you very much, sir. I appreciate it.

21 MR. DAVIS: You're welcome.

22 BOARD MEMBER GARCIA: That's all.

23 HEARING OFFICER ORTH: Thank you. Member Honker?

24 BOARD MEMBER HONKER: No questions. Thank you.

25 HEARING OFFICER ORTH: All right. Thank you.

1 Mr. Rose, will there be any follow-up with Mr. Davis?

2 MR. ROSE: I have no redirect.

3 HEARING OFFICER ORTH: All right. Thank you very
4 much, Mr. Davis.

5 MR. DAVIS: Thank you.

6 HEARING OFFICER ORTH: We'll excuse you for now.

7 And Mr. Butzier, I see you on screen. Will we be
8 hearing from Mr. Carr next?

9 MR. BUTZIER: Good afternoon, Madam Hearing
10 Officer, Madam Chair, members of the Board. The Gas
11 Compressor Association offered advanced written testimony
12 from two technical witnesses on the subject of pneumatic
13 controller requirements in Section 122 of NMED's proposed
14 rule. Those witnesses are Mr. Raymond Carr of F.W. Murphy
15 Production Control, and Mark Davis, of J.W. Power Company.
16 And their testimony appears as GCA Exhibits 17 and 32
17 respectively.

18 In essence, they proposed changes to Section 122
19 that would encourage and look more favorably upon the
20 continued employment of intermittent pneumatic controllers
21 than what was originally proposed by NMED. The GCA
22 offered its viewpoint that intermittent pneumatic
23 controllers should be considered part of the emission
24 reduction goal solution, particularly in remote
25 applications. However, NMED did not accept GCA's proposed

1 changes in its September 16th draft, and other industry
2 commenters are pursuing a slightly different approach to
3 lessen the technological and cost burdens associated with
4 that section of the proposed rule.

5 The GCA has decided not to further pursue
6 testimony on its proposed changes to Section 122 today.
7 We'll defer to the oil and gas associations on the
8 pneumatics issues, and is committed to working with its
9 customers to comply with the pneumatic controller
10 requirements that the Board adopts as a final rule.

11 Accordingly, the GCA will not be offering oral
12 testimony from Mr. Carr and Mr. Davis, but it does offer
13 to make them available as a panel if any party or Board
14 member is inclined for any reason to ask questions of
15 them.

16 HEARING OFFICER ORTH: All right. Thank you very
17 much, Mr. Butzier. If you are a party representative or
18 counsel and would have questions were Mr. Carr and
19 Mr. Davis to present themselves, please turn on your
20 camera.

21 I'm seeing no one, Mr. Butzier.

22 Board members, perhaps wave a hand if you would
23 have questions of the panel. I'm seeing no hands,
24 Mr. Butzier. All right.

25 Well, thank you very much for being clear

1 about -- about your journey to this point, and we'll thank
2 Mr. Carr and Mr. Davis for their willingness to testify.

3 MR. BUTZIER: Thank you, Madam Hearing Officer.

4 HEARING OFFICER ORTH: All right. Do I
5 understand, then, that we would be moving to EDF and
6 witnesses Lyon and Alexander? Although, I seem to
7 remember Mr. Alexander wasn't available until Friday.

8 Ms. Paranhos? Oh, there you are.

9 MS. PARANHOS: Good afternoon, Madam Hearing
10 Officer. I'm just confirming that David Lyon is on. And,
11 yes, he is on.

12 MR. LYON: I'm on.

13 MS. PARANHOS: Perfect. Oh, there he is.

14 Mr. Alexander is not until later this week.

15 HEARING OFFICER ORTH: All right. Thank you. I
16 think I already swore Mr. Lyon. Yes?

17 MS. PARANHOS: No.

18 HEARING OFFICER ORTH: All right. Thank you.
19 Mr. Lyon, if you would spell your name for the record,
20 please?

21 DR. LYON: Yes. D-A-V-I-D, L-Y-O-N.

22 HEARING OFFICER ORTH: Thank you. If you would
23 raise your right hand. Do you swear or affirm to tell the
24 truth?

25 DR. LYON: I swear, yes.

1 HEARING OFFICER ORTH: Thank you.

2 DAVID LYON, Ph.D.,
3 having been first duly sworn, was examined and
4 testified as follows:

5 DIRECT EXAMINATION OF DAVID LYON, Ph.D.

6 BY MR. PARANHOS: (Pneumatics)

7 Q. Thank you so much. David, can you please tell
8 the Board where you are employed?

9 A. Yes, I'm a senior scientist at Environmental
10 Defense Fund, where I work on approaches to measure and
11 reduce oil and gas methane emissions.

12 Q. And what is your educational background?

13 A. I have a Ph.D. in Environmental Dynamics from the
14 University of Arkansas, and my dissertation was on oil and
15 gas methane emissions.

16 Q. And can you please provide an overview of your
17 work experience?

18 A. Yes. I've worked at EDF for over nine years, and
19 co-authored over 20 peer-reviewed papers on oil and gas
20 emissions. And prior to my work at EDF, I worked at the
21 Arkansas Department of Environmental Quality where I was
22 the manager of the state's air pollution emission
23 inventory program. And at the agency, I led an EPA-funded
24 project to develop an emission inventory and measure air
25 pollution from natural gas facilities in the Fayetteville

1 Shale of Arkansas.

2 Q. Thank you. And is EDF Exhibit B an accurate copy
3 of your CV?

4 A. Yes.

5 Q. And did you submit direct and rebuttal testimony
6 on behalf of EDF in this matter?

7 A. Yes.

8 Q. Do you have any corrections to your filed direct
9 or rebuttal testimony on Section 122, which is the
10 pneumatics provisions?

11 A. No.

12 Q. And do you adopt your written, direct and
13 rebuttal testimony regarding pneumatic controllers here
14 today?

15 A. Yes. My written testimony is EDF Exhibit RR and
16 the rebuttal testimony is Exhibit XX, and I will be
17 discussing papers that are Exhibits J, L, M, N, O, BB and
18 AAA.

19 Q. Thank you.

20 MS. PARANHOS: Madam Hearing Officer, I would
21 move to admit Dr. Lyon's direct and rebuttal testimony and
22 the exhibits he just noted, subject to the objections that
23 have been raised by NMOGA and IPANM.

24 HEARING OFFICER ORTH: Right. So we can
25 certainly admit them subject to those objections, which I

1 think we'll be discussing tomorrow morning. Thank you.

2 (EDF Exhibits B, J, L, M, N, O, BB, RR, XX, AAA
3 received into evidence, subject to objections.)

4 MS. PARANHOS: Thank you very much.

5 Q. (BY MS. PARANHOS) Dr. Lyon, could you please
6 provide a summary of your opinions regarding pneumatic
7 controllers?

8 A. Yes. So, first, we proposed that gas-powered
9 pneumatic controllers are included in the leak detection
10 and repair program. So NMED accepted this proposal in its
11 September 16th draft, Section 122.C 4. And we appreciate
12 the adoption of this proposal, as peer-reviewed studies
13 demonstrate that malfunctioning gas-powered pneumatic
14 controller can submit -- can emit VOC and methane
15 emissions. In addition, this requirement tracks a similar
16 rule promulgated by the State of Colorado's Air Quality
17 Control Commission.

18 We believe this requirement will help reduce
19 emissions from malfunctioning gas-powered pneumatic
20 controllers. Second, and importantly, as discussed by
21 Dr. McCabe this morning, the best and surest way to reduce
22 emissions from malfunctioning pneumatic controllers is to
23 replace them with zero emitting devices as EDF and others
24 have proposed.

25 Inspections will help minimize emissions from

1 malfunctioning gas-powered pneumatic controllers, but they
2 will not eliminate these emissions. So replacing
3 gas-powered pneumatic controllers with zero-emitting
4 controllers will eliminate the emissions from both
5 properly operating and malfunctioning controllers.

6 Q. Thank you. And did your direct testimony
7 describe studies that found significant emissions from
8 malfunctioning gas-powered pneumatic controllers?

9 A. Yes.

10 Q. Can you please summarize for the Board the
11 findings from those studies?

12 A. Yes. So the first study is Exhibit J, Allen, et
13 al., 2015. So this was a study led by the University of
14 Texas and sponsored by Environmental Defense Fund, that
15 measured methane emissions from 377 pneumatic controllers
16 throughout the United States at production sites. And
17 this study found that the average emission rate was 5.5
18 standard cubic feet of gas per hour.

19 In the study that had industry's experts review
20 the emission patterns of the 40 highest emitting
21 controllers, which were responsible for about 80 percent
22 of the total emissions. And the experts concluded that 28
23 of these 40 highest emitting controllers were
24 malfunctioning and operating in a manner inconsistent with
25 the manufacturer's design.

1 So, and this study also found that many devices,
2 which are designed to only emit during actuation, so
3 intermittently emitters, controllers that should have zero
4 emissions between actuations, some of them were having
5 malfunctioning -- malfunctions that caused them to emit
6 continuously.

7 HEARING OFFICER ORTH: Dr. Lyon, I'm sorry to
8 interrupt. Would you please slow down just a little bit?

9 DR. LYON: Yes.

10 HEARING OFFICER ORTH: Thank you.

11 Q. (BY MS. PARANHOS) Thank you so much, David.

12 A. So --

13 Q. Please continue.

14 A. So the second study is Exhibit M, which is the
15 City of Fort Worth Natural Gas Air Quality Study. And in
16 this study, the contractors measured emissions from 489
17 intermittent pneumatic controllers. They detected the
18 emissions using infrared cameras, and then use Method 21
19 and high-flow samplers to quantify emissions of
20 controllers. And they found that many of these pneumatic
21 controllers were having high emissions, often due to
22 malfunctions.

23 And the emission rates of some of these
24 controllers, the average emission rate of pneumatic
25 controllers in the Fort Worth study were approaching that

1 rate of high-bleed controllers. And so the study authors
2 found that a lot of this was due to malfunctions of
3 controllers.

4 The third study, Exhibit N, is the Prasino study
5 of pneumatic controller emissions in the Canadian
6 providence of British Columbia. And this study also noted
7 that a lot of maintenance issues led to abnormally-high
8 emission rates. And the researchers did not identify the
9 cause of these emissions rates, but these findings are
10 consistent that often issues with pneumatic controllers
11 cause abnormally-high emissions.

12 And then finally, Exhibit O, the carbon limits
13 report also confirms that pneumatic controllers often have
14 an excess emission rate due to malfunctions.

15 Q. Thank you so much.

16 And so, in your opinion, do these studies support
17 EDF's proposal to require operators to replace gas-powered
18 pneumatic controllers, more specifically than the
19 Department has proposed?

20 A. Yes, they do.

21 Q. Thank you so much.

22 Now, I'm going to move to one surrebuttal
23 question. Dr. Lyon, we heard testimony earlier today, as
24 well as in NMOGA's opening statement, that suggested that
25 AVO inspections, audiovisual olfactory inspections can

1 detect leaks from malfunctioning pneumatic controllers.

2 In your opinion, are AVO inspections as reliable in
3 detecting emissions from malfunctioning pneumatic
4 controllers, as possible gas-imaging cameras or other
5 instruments?

6 A. No. AVO is not as effective as OGI or other
7 instruments. So I've heard from industry experts that
8 occasionally AVO does work for finding malfunctions,
9 including malfunctioning pneumatics, but that the --
10 really, the success rate of AVO is highly dependent on
11 conditions in the field, such as the weather conditions
12 and other sources. So, for example, if there's other
13 sources on site, or if there's other large or loud
14 emission sources, such as flares, often the operators are
15 unable to detect the malfunction through listening or
16 seeing.

17 Q. Thank you very much, Dr. McCabe.

18 MS. PARANHOS: And this concludes his summary.

19 HEARING OFFICER ORTH: Thank you, Dr. Lyon. Let
20 me pause for a moment in the event another party or lawyer
21 has questions. Let's see. Mr. Hiser's screen has gone
22 on.

23 MR. CURTIS: This is Mr. Curtis. Yeah, I pop in
24 from time to time. Sorry. Yeah, I just had a few
25 questions for Mr. Lyon.

1 CROSS-EXAMINATION OF DAVID LYON, Ph.D.,

2 BY MR. CURTIS:

3 Q. Mr. Lyon, I apologize on behalf of all of us that
4 you have to hang out with lawyers today. I can't imagine
5 that's very much fun, but we appreciate you being here and
6 sharing with us your expertise. I have just a few
7 questions on some of the testimony that you provided.

8 You spoke a little bit about Exhibit J, which I
9 believe is referred -- is entitled: "Methane Emissions
10 from Process Equipment at Natural Gas Production Sites in
11 the United States." Are you familiar with that?

12 A. Yes.

13 Q. Okay. Great. I wanted to talk a little bit
14 about a statement that you made in your rebuttal testimony
15 where you state that, "A properly functioning intermittent
16 controller emits less than 13.5 standard cubic feet per
17 hour; however, malfunctioning intermittent controllers can
18 emit significantly more than this amount, and
19 significantly more than a properly functioning continuous
20 bleed controller."

21 So your testimony is basically that while
22 properly -- properly functioning intermittent controllers
23 emit less than 13.5, the 13.5 is, nevertheless,
24 appropriate to account for malfunctions; is that your
25 testimony?

1 A. No. I do not provide a number that's
2 appropriate; just that the well functioning operation of
3 pneumatic controllers is less than 13, and the average for
4 all malfunctioning pneumatic controllers is above 13. I
5 believe it's close to about 40 scf per hour, based on that
6 study.

7 Q. Okay. And so, this study actually found for
8 intermittent controllers, that the average rate of
9 intermittent controllers was 2.2 standard cubic feet per
10 hour. Do you agree?

11 A. If I'm remembering correctly, that was the
12 average of the controllers that the operators told the
13 study partners were intermittent controllers. It was not
14 based on the actual emissions pattern of -- of those
15 controllers.

16 Q. And are you familiar with follow-up work that was
17 conducted by Dr. McCabe, to evaluate the impact of that --
18 that that characterization might have introduced -- the
19 bias that might have introduced?

20 A. I'm familiar with some of Dr. McCabe's work. I
21 don't -- I'm not exactly sure which study you're talking
22 about, though.

23 Q. Have you reviewed Mr. Meyer's testimony, direct
24 testimony and any related appendices associated with that?
25 In particular, a letter provided by Dr. McCabe in 2015,

1 responding to this particular study?

2 A. I have not read that letter, but I think if it's
3 announced, I'm remembering I was involved with the
4 analysis with Dr. McCabe at that time period.

5 Q. Wasn't the purpose of this analysis to adjust the
6 2.2 standard cubic feet per hour, to account for any bias
7 that may have been introduced by not including
8 malfunctioning intermittents as intermittents?

9 A. Yeah, I believe the purpose was to calculate the
10 emission factors based on the observed emissions profiles
11 of -- of those pneumatics.

12 Q. And specifically, to include the malfunctioning
13 components?

14 A. Yes, I -- I believe so. Both to try to come up
15 with a combined factor and separate factors, yes.

16 Q. And wasn't the recommendation based on that
17 revised analysis, that the appropriate emission factor
18 based on that study was 3.5 standard cubic feet per hour?

19 A. I don't recall the exact number, but that -- that
20 seems reasonable, yeah.

21 Q. To your knowledge, isn't that the emission factor
22 that ERG has relied on, and Valor and Adam Meyer have
23 relied on as well in their analysis?

24 A. Yes, I think so, yes.

25 Q. Thank you. Just a few other questions here. So

1 part of the proposal that you've endorsed with pneumatics
2 is to propose a more accelerated phase-out. Mr. Lyon,
3 have you considered -- I'm sorry. Dr. Lyon, have you
4 considered whether this would create any supply and
5 chain -- supply chain bottlenecks or similar issues?

6 A. No, I have not concluded that.

7 Q. Okay. And, again, in the pneumatics proposal
8 you've endorsed, the parties call for a more accelerated
9 phase-out of pneumatics. Wouldn't conducting LDAR on
10 pneumatics mitigate the need for the accelerated schedule
11 of retrofitting the pneumatics that NMED's proposed?

12 A. So, doing inspections on the pneumatic
13 controllers would eliminate the emissions from the
14 malfunctioning controllers, but you would still have the
15 emissions from the operational controllers. So the
16 accelerated retrofits would reduce emissions faster from
17 those operational controllers.

18 Q. But you agree fundamentally that LDAR will
19 identify malfunctioning pneumatics and allow repair of
20 those leaks?

21 A. Yes, if implemented properly, then, yes, LDAR of
22 pneumatics could reduce emissions from -- from
23 malfunctioning pneumatic controllers.

24 Q. And last question: do you dispute Mr. Morris and
25 Mr. McNally's testimony that VOC reductions, such as

1 reductions from retrofitting pneumatics, will not have as
2 large of an impact on ozone concentrations as reduction in
3 NOx in a majority of the areas affected by this rule?

4 A. I'm not an expert on ozone's photochemistry and
5 cannot speak to that.

6 Q. Okay. Fair enough. And one final question: Do
7 you agree that the proposals outlined that you've
8 endorsed, are more stringent than federal law would
9 otherwise require?

10 A. I mean, of current federal law, but there is a
11 draft federal rule that's at the Office of Management
12 Budget -- Office of Management and Budget, so I can't say
13 how it compares to the proposal.

14 Q. Fair enough. You don't have your crystal ball.

15 As it relates to current federal law, would you
16 agree that it is more stringent?

17 A. Yes.

18 Q. Okay. Thank you so much, Dr. Lyon. I appreciate
19 your time.

20 A. Thank you.

21 HEARING OFFICER ORTH: Thank you, Mr. Curtis. Is
22 there any other counsel or parties with questions of
23 Dr. Lyon?

24 No? In that case, I will turn to questions from
25 the Board. While I'm doing that, if you're an attendee --

1 oops, I see Ms. Katz.

2 MS. KATZ: Sorry, Madam Hearing Officer, my -- my
3 camera took a minute. I actually don't have any questions
4 for Mr. Lyon, but I think maybe Mr. Curtis might have said
5 that ERG used 3.5 emission factor -- or we used a 13.5 --
6 or sorry, we used 3.5, but we used 13.5. So, anyway, I
7 was just trying to correct that ERG did not use 3.5.

8 MR. CURTIS: I apologize. You're correct. I
9 meant to simply say that Valor used 3.5. Thank you.

10 MS. KATZ: Thank you. I thought you were
11 probably just misspeaking. I just wanted to correct that.
12 Thanks.

13 HEARING OFFICER ORTH: All right. Thank you,
14 Ms. Katz.

15 I'm going to turn to questions from the Board.
16 If you're an attendee on the platform and have a question,
17 reach out through the Chat.

18 EXAMINATION BY THE BOARD OF DAVID LYON, Ph.D.

19 HEARING OFFICER ORTH: Madam Chair, any questions
20 of Dr. Lyon?

21 CHAIRPERSON SUINA: Thank you, Madam Hearing
22 Officer. And I just wanted to thank Dr. Lyon for his
23 testimony and information he's provided, but I don't have
24 any questions at this time.

25 HEARING OFFICER ORTH: Thank you. Vice-Chair

1 Trujillo-Davis?

2 VICE-CHAIR TRUJILLO-DAVIS: Yeah, I just have a
3 couple of questions. And I think Mr. Hiser's co-counsel
4 there kind of was touching on some of my questions. So,
5 first, I'd like to thank Dr. Lyon for taking the time to
6 chat with us today. I thought some of your testimony was
7 really enlightening.

8 I'm curious, are there any other regulations that
9 would require reporting failures or require frequent
10 inspections?

11 DR. LYON: From any jurisdiction or specific to
12 New Mexico?

13 VICE-CHAIR TRUJILLO-DAVIS: I'm sorry. I should
14 be more specific. I was thinking along the federal lines.

15 DR. LYON: Not that I'm aware of, because for the
16 EPA Greenhouse Gas Reporting Program, pneumatic controller
17 emissions are just based on the emission factors,
18 regardless of if they're functioning properly or not.

19 VICE-CHAIR TRUJILLO-DAVIS: Okay. I think that's
20 all I have here, so thank you.

21 HEARING OFFICER ORTH: Thank you. Member Cates?

22 BOARD MEMBER CATES: No questions here. Thank
23 you.

24 HEARING OFFICER ORTH: Member Bitzer?

25 BOARD MEMBER BITZER: No questions. Thank you.

1 HEARING OFFICER ORTH: Member Garcia?

2 BOARD MEMBER GARCIA: No questions. Thank you.

3 HEARING OFFICER ORTH: And Member Honker?

4 BOARD MEMBER HONKER: I have no questions. Thank
5 you.

6 HEARING OFFICER ORTH: All right. Thank you.

7 Ms. Paranhos, will there be any redirect?

8 MS. PARANHOS: No need for redirect, Madam
9 Hearing Officer.

10 HEARING OFFICER ORTH: All right. Thank you very
11 much, Dr. Lyon, for your testimony and thank you,
12 Ms. Paranhos. I think we'll hear from Mr. Alexander on
13 Friday. All right. Thank you.

14 So do we move back to -- because we've already
15 heard from McCabe. Do we move back to the Department,
16 Ms. Katz?

17 MS. KATZ: Thank you, Madam Hearing Officer.
18 Yes, I think there's some rebuttal from -- yes, I know
19 Ms. Gutierrez, Kinder Morgan has some. I don't know if
20 IPANM, if they have Mr. Brown as rebuttal for this, but I
21 don't know if they're planning to put him up.

22 HEARING OFFICER ORTH: Okay. I guess I lost the
23 thread. I thought folks were putting on their rebuttal
24 and surrebuttal as we were going along, but Ms. Gutierrez?

25 MS. GUTIERREZ: Madam Hearing Officer, of course

1 these things happen at the most inopportune time, but my
2 witness's computer did a forced reboot. So can we
3 circle -- can I circle back with you and ping you when
4 she's available? I sincerely apologize for that.

5 HEARING OFFICER ORTH: Yes, absolutely. I see
6 Mr. Rose on screen. Mr. Rose?

7 MR. ROSE: Yes, we discussed whether Mr. Brown
8 would be testifying. He's listed as, I think, rebuttal in
9 a number of areas. It relates to his testimony on Section
10 112, which is referenced through the reg., so we don't
11 intend to offer him as a witness on any of the other
12 sections.

13 It looks like you've muted yourself.

14 HEARING OFFICER ORTH: Ms. Katz? I'm sorry.

15 MS. KATZ: Okay. So I -- so I think we're up
16 then for surrebuttal. So I'll bring Ms. Kuehn and
17 Mr. Palmer back for that.

18 ELIZABETH BISBEY-KUEHN AND BRIAN PALMER
19 having been previously duly sworn or affirmed, was
20 examined and testified as follows:

21 REBUTTAL EXAMINATION OF ELIZABETH BISBEY-KUEHN

22 AND BRIAN PALMER (Pneumatics)

23 MS. KATZ: All right. So, beginning with
24 Ms. Kuehn, so in your previous testimony you had discussed
25 how Colorado has been regulating pneumatic controllers

1 since 2009, and that this fact is part of why Colorado's
2 approach is not appropriate for New Mexico. Does the
3 Environmental Defense Fund's argument made by Mr. McCabe
4 that the retrofit schedule in the Department's proposal is
5 slower than Colorado's rule take into account the higher
6 number of controllers phased out in New Mexico compared to
7 Colorado?

8 MS. BISBEY-KUEHN: No, it does not. As I stated
9 previously, the Department's proposal would cover many
10 more controllers than EDF's proposal, which is based on
11 Colorado's rule, and an extended compliance time frame is
12 appropriate for that very reason.

13 MS. KATZ: And Ms. Kuehn, does the joint proposal
14 from Oxy and the environmental NGOs contain all of the
15 necessary elements to implement their proposal in the --
16 in the redline that they are -- that they have provided?

17 MS. BISBEY-KUEHN: No, their proposal is not
18 fully developed and is missing significant rule language
19 that is necessary to actually implement the proposal.
20 That includes the method to determine total historic
21 percentage of liquids produced at facilities, in addition
22 to the barrel of oil per day production. That wasn't
23 specifically part of the redline strikeout, but that is
24 contained in other parties' redline strikeout versions of
25 the rule. And so, if that concept were to be implemented

1 in this rule, that concept as well would need to be fully
2 fleshed out.

3 In addition, there's -- so the primary issue is
4 that the full calculation itself hasn't -- hasn't been
5 developed and the methodology to determine that
6 calculation hasn't been fully developed.

7 MS. KATZ: Okay. Thank you. If the Board were
8 to adopt that joint proposal from the Environmental NGOs
9 and Oxy, we heard that Oxy's witness, Mr. Holderman, state
10 that it would result in less of a burden to the
11 Department. Is that true?

12 MS. BISBEY-KUEHN: No. The proposal -- their
13 proposal would put a greater burden on the Department than
14 the Department's current proposal. As mentioned
15 previously, that concept has not been fully developed and
16 so the Department would need to develop that methodology
17 to determine the total historic percentage of liquids
18 produced.

19 And the proposal would -- prepared by other
20 parties, which may be necessary to implement, includes
21 significant reporting to the Department, which the
22 Department currently just would not have the resources to
23 fully -- to fully address.

24 MS. KATZ: And when you say the proposal from
25 other parties, which may be necessary to implement, you

1 mean if the Board were to choose the other option instead
2 of the one that's being proposed by the Department,
3 correct?

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

5 MS. KATZ: Okay. Thank you. Okay. So I'm
6 turning to Mr. Palmer. So, Dr. McCabe in his testimony,
7 stated that the Department's cost estimate assumed partial
8 retrofits of controllers; is that correct?

9 MR. PALMER: No, it is not. The -- in our cost
10 spreadsheet, we manipulated some of the values in order to
11 hit an overall target of 80 percent nonemitting
12 controllers for the purposes of just estimating overall
13 cost and emission reductions, and that required that we
14 used a fractional value in some rows to meet that overall
15 80 percent nonemitting target, but that was -- that was
16 sort of an industry-wide approach. It was not at a
17 facility level, so it was not a partial retrofit.

18 MS. KATZ: Okay. Thank you. And Dr. McCabe
19 testified that the NMED proposal will result in slower
20 implementation of retrofits than the joint proposal of the
21 Environmental NGOs and Oxy. Did Dr. McCabe present any
22 data or analysis to support this assertion?

23 MR. PALMER: No, he did not.

24 MS. KATZ: And does the Department agree that
25 NMED's approach will result in slower retrofits?

1 MR. PALMER: No. Based on the well count data in
2 the 2020 producing wells spreadsheet, which is included as
3 NMED Exhibit 94, it appears that the Department's proposal
4 could actually result in a faster replacement of pneumatic
5 controllers because that proposal is based on controller
6 counts rather than liquids production.

7 Earlier today, while considering his testimony, I
8 prepared a slide that I can share with you based on those
9 data that will illustrate an example. Let me bring that
10 up and then share my screen. Okay. Let me see if I can
11 get rid of this here. There we go.

12 So these two -- these are the two Table 1s from
13 the two rules. The one on top here is from the joint
14 proposal from Oxy and the Environmental NGOs. The lower
15 table is the current -- is the Table 1 from the NMED's
16 current draft rule. And the concern expressed by
17 Dr. McCabe was that our -- because our timeline is
18 extended outward, it will mean more years of excess
19 emissions because it won't require as many retrofits.

20 And so what I'd like to just draw your attention
21 to are these two circled values here as examples. So
22 these are both May -- or 2027 time deadlines, and they're
23 both within this 40 to 60 percent cohort, who currently
24 have nonemitting controllers. So this is 40 to 60 percent
25 based on the numeric count, and this is 40 to 60 percent

1 based on the production count.

2 So I looked at the well data, and assuming that
3 wells are directly correlated with the number of
4 controllers under the joint proposal this -- but also
5 recognizing that some wells have much higher production
6 than other wells, based on this -- on the joint proposal
7 under this deadline right here, achieving 92 percent
8 production in 2027 would mean that devices at 42 percent
9 of wells would be nonemitting. At this, really, the same
10 deadline -- actually, January 1st, 2027, so five months
11 earlier, under the NMED's proposal, 70 percent of wells
12 would be nonemitting -- or the controllers at 70 percent
13 of wells would be nonemitting because its the number of
14 controllers. So I think it's -- it's actually the NMED
15 proposal certainly will not result in any slower
16 implementation of nonemitting controllers, and in some
17 cases it may actually be faster, given the well production
18 data, but also making some assumptions about controllers
19 per well because we don't have data on exactly how many
20 controllers are out there and exactly how they're
21 distributed.

22 But the bottom line is, is that, no, the
23 Department's proposal will not result in a slower
24 implementation and it may actually be faster, based on my
25 analysis.

1 MS. KATZ: Okay. Thank you, Mr. Palmer. So
2 turning to IPANM, Mr. Palmer, can you describe the impacts
3 of the -- of IPANM's proposal to exclude low-producing
4 operators from the pneumatics requirements?

5 MR. PALMER: Yes. The IPANM is referring to the
6 Colorado Reg. 7 for operators, whose statewide production
7 is less than 15 barrel of oil equivalent per well per day.
8 In Colorado, they're exempt from the company-wide
9 nonemitting controller program for well production
10 facilities.

11 And going back to the NMED exhibit that we used
12 for the small business definition, if we look at those
13 data, then a 15 BOE per well per day exemption as in
14 Colorado, it would exempt 269 out of 324 well operators
15 who have oil production. Only 55 well operators with oil
16 production would be subject, and also 63 percent of all
17 wells, or 30,200 wells would not be subject to the
18 nonemitting controller requirements.

19 MS. KATZ: And can you describe the impact of the
20 IPANM's proposal to exclude well sites that have fewer
21 than four controllers?

22 MR. PALMER: This was an item that they had in
23 their direct, but there was no supporting information
24 provided on that, so we can't -- we can't estimate what
25 the impact would be on that. However, there are many,

1 many wells with -- that would also be exempt from that.

2 That's all I can really say.

3 MS. KATZ: Okay. And Mr. Palmer, can you -- does
4 this section, the requirements of Section 121, would they
5 apply to a small business facility as defined in the rule?

6 MR. PALMER: No, they would not.

7 MS. KATZ: Okay. Thank you.

8 MR. PALMER: They would not have -- okay.

9 MS. KATZ: That is all I have.

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

12 Let me ask if there are other parties. I see
13 Mr. Baake. Do you have questions of the Department's
14 panel?

15 MR. BAAKE: I do, Madam Hearing Officer. And
16 would it be possible to get -- to pull up his screen
17 sharing privilege, I would like to pull up again from
18 Dr. McCabe's presentation this morning for my question.

19 COURT REPORTER: And can I ask you to speak up,
20 now, please. Thank you.

21 MR. BAAKE: Sorry. I don't know why -- okay --
22 I'm having trouble being heard. So let me just see if I
23 can -- oops. Okay. Is that -- do we have the slide up
24 there?

25 REBUTTAL CROSS-EXAMINATION OF ELIZABETH BISBEY-KUEHN

1 AND BRIAN PALMER

2 BY MR. BAAKE:

3 MR. BAAKE: Okay. Dr. Palmer, I guess I would
4 start with you. So I think that you said that you work
5 with --

6 MR. PALMER: I'm sorry, I'm Mr. Palmer. I'm not
7 a doctor.

8 MR. BAAKE: Oh. Well, I would believe that you
9 were, if you -- if you told me otherwise. Mr. Palmer,
10 you -- you -- I believe you just said that you didn't see
11 any evidence that the Department's program would be
12 slower; is that correct?

13 MR. PALMER: That is correct. Yes, that's
14 correct. I believe the slide that you're showing now is a
15 comparison of the numbers. These are -- these are just
16 the targets, but I don't know -- are they -- well, you can
17 tell me.

18 MR. BAAKE: Yeah. Let me -- let me -- so I think
19 that the -- that one point that needs to be made is that
20 there's -- there's the wellhead count, where we do have
21 this additional complication of the different metrics, but
22 there's also a table for gathering compressor stations,
23 which it -- it -- let me put this in the form of a
24 question.

25 Would you -- do you understand that the NMED

1 approach and the Colorado -- the NMED approach has a
2 controller count number approach for gathering compressor
3 stations. Would you -- do you understand that that's also
4 how Colorado does it for those facilities?

5 MR. PALMER: I'm sorry. Can you repeat the last
6 part of the question? I'm sorry.

7 MR. BAAKE: So the question is just, do you
8 understand that -- based on your understanding of the
9 Colorado rule for gathering compression stations, that
10 they use a controller count metric?

11 MR. PALMER: Yes.

12 MR. BAAKE: So for those facilities, it should be
13 possible to do kind of an apples to apples comparison
14 between the Department's proposal and the Colorado rule?
15 Yes?

16 MR. PALMER: Yes, I would agree.

17 MR. BAAKE: Okay. And so here, this is a slide
18 that Dr. McCabe presented earlier. Did you see when he
19 presented this?

20 MR. PALMER: I did.

21 MR. BAAKE: And at least for these facilities,
22 would you agree that this appears to show that the
23 Colorado rule and the proposal that Clean Air Advocates
24 put forward is more stringent than the NMED's proposal?

25 MR. PALMER: I would agree for gathering and

1 boosting stations.

2 MR. BAAKE: Right. Now, it would be -- now maybe
3 we could go back to your slide. Sorry for --

4 MR. PALMER: Okay. But let me -- let me also
5 clarify that, please, my response. And that is that when
6 you look at our pneumatic controller cost spreadsheet, so
7 we have -- if you look on -- well, I could share it again
8 and that might help you out.

9 MR. BAAKE: Yeah, that would be great. Okay.
10 Yeah.

11 MR. PALMER: Let me do that because I think it
12 will -- I'm going to respond to what you're asking about
13 quickly here. So, here is our cost spreadsheet, one page
14 of it. And this row -- these rows here are for gathering
15 and boosting. And hide this -- okay. So we have 570
16 gathering and boosting sites in the Permian. We have 345
17 gathers and boosting sites in the San Juan. Those sites,
18 this is the average number of devices per site at a
19 gathering and boosting station, and this is based on the
20 Greenhouse Gas Reporting Program.

21 So this is the total number of controllers at
22 gathering and boosting; the Permian is 7,075. This is a
23 total number of controllers in the San Juan, is 4,265.
24 Relative to well sites, these are the number of
25 controllers at wellheads. Wellheads and tank batteries in

1 the Permian is 26,392. This is the number of controllers
2 at wellheads and tank batteries in the San Juan, and it's
3 100,819.

4 So, yes, you can compare apples to apples on the
5 gathering and boosting, but when you get to wellheads,
6 there's -- they account for the -- most of these wellheads
7 and tank batteries account for where most of your
8 controllers are. So I'm going to stop sharing my screen.

9 MR. BAAKE: I'd really appreciate that. And I
10 don't think anyone would disagree that production sites
11 are where -- are where the primary focus is for
12 pneumatics. But I do think that you would agree, that at
13 least for gathering and boosting stations, the
14 Department's proposal is less stringent than this
15 proposal?

16 MR. PALMER: It has a longer timeline.

17 MR. BAAKE: Longer timeline. Could you pull up
18 the Word document, I think, that you were using at the end
19 of your testimony there?

20 MR. PALMER: You're talking about the --

21 MR. BAAKE: Sure. It was at the end of your
22 surrebuttal.

23 MR. PALMER: Uh-huh. Okay.

24 MR. BAAKE: So I just wanted to make sure I am
25 clear on what you're saying here. And recognizing that

1 there's a lot of complexity in trying to move from one
2 metric to the other, but in that box where you say that
3 devices at 70 percent of wells are nonemitting, don't you
4 mean that 70 percent of devices are not emitting?

5 MR. PALMER: Yes, that's correct.

6 MR. BAAKE: So not necessarily 70 percent of
7 facilities?

8 MR. PALMER: Correct, because we -- it's hard to
9 estimate actually how many devices there are per well,
10 because some wells -- some well sites will probably have
11 fewer controllers than others.

12 MR. BAAKE: Right. And would you agree that
13 under the Colorado rule, the reason why they used the
14 liquid production metric is the idea that the more liquids
15 that are produced, the more pneumatics --
16 (unintelligible.)

17 HEARING OFFICER ORTH: Hold on. Hold on.
18 Theresa?

19 COURT REPORTER: Please speak slower for the
20 record. You put your head down and your volume goes down.
21 So please speak slower and louder. Thank you.

22 MR. BAAKE: Sure. Let me reask that question
23 slower and louder, if I can remember it.

24 Is your understanding, Mr. Palmer, that the
25 reason why Colorado used this percentage of liquid

1 production metric is that facilities that produce more
2 liquids generally have more pneumatics?

3 MR. PALMER: I am not 100 percent -- I'm not
4 certain on why Colorado used that metric.

5 MR. BAAKE: Okay. Would that surprise you, if we
6 represented that that is our understanding?

7 MR. PALMER: I mean, if you told me that was your
8 understanding.

9 MR. BAAKE: So you don't know?

10 MR. PALMER: I'm not sure. However, the
11 Pennsylvania -- excuse me. The Department's rule
12 certainly allows operators to prioritize high-production
13 wells, as far as determining which ones they want to
14 retrofit with nonemitting controllers.

15 MR. BAAKE: But would you agree that this
16 comparison is -- perhaps more analysis needed to go into
17 it since we can't say for sure whether -- whether how
18 many -- how many wells want to be retrofit under the
19 table -- under the Department's rule?

20 MR. PALMER: Well, that's what I tried to do
21 here. But the question -- the question that we were
22 responding to, or the statement we were responding to was
23 that -- was the argument that the Department's rule was
24 going to result in a slower number of -- a lower number of
25 retrofits or greater emissions. And I've looked at the

1 data and it doesn't necessarily indicate that.

2 MR. BAAKE: But I --

3 MR. PALMER: So --

4 MR. BAAKE: I guess what I'm trying to understand
5 is whether this -- this comment in the second bubble here
6 actually shows that, because I thought I heard you say
7 earlier that it does not correct what it says -- it's not
8 actually the 70 percent of wells not emitting. We don't
9 know how many -- what percent of wells would be not
10 emitting. We just know a percent of the devices; is that
11 it? Did I misunderstand that?

12 MR. PALMER: No. What I did was, I looked at the
13 wells and I ranked -- what I said was that if you look
14 at -- let me say this, there's another way to state the
15 table, restate this, is that 92 percent of production is
16 accounted for by 42 percent of wells in New Mexico. So to
17 get to 92 percent, you might have to retrofit the
18 controllers at only 42 percent of your wells. So,
19 therefore, the controllers at 68 percent of your wells
20 don't need to be retrofit.

21 On the same date, on the same time landmark of
22 2027, under the New Mexico proposal -- the Department's
23 proposal, 70 percent of your controllers have been
24 retrofit and only 30 percent have not been retrofit. So
25 that's the point I was trying to make, is that we are

1 targeting a higher number of controllers at the same date,
2 and actually five months earlier.

3 MR. BAAKE: So I guess what I'm trying to
4 understand here -- let me ask you a hypothetical. Would
5 you expect a larger facility -- a larger well that has
6 more production, to have more pneumatic controllers than
7 one with less production?

8 MR. PALMER: I think if you talk to the industry
9 folks, they'll probably say that. And maybe -- I think
10 maybe you should ask the industry folks that. My
11 understanding is that at some sites you may have fewer --
12 relatively fewer controllers, but they actuate more often
13 because there is higher throughput through that
14 controller.

15 MR. BAAKE: So I think that's -- you're right, we
16 would need more information on that. I guess what I'm
17 trying to get at here, is it logically possible that you
18 might have 42 percent of the wells in the state that have
19 70 percent of the pneumatics?

20 MR. PALMER: I suppose that could be true.

21 MR. BAAKE: Is it logically probable that --

22 MR. PALMER: But it's not --

23 MR. BAAKE: Go ahead.

24 MR. PALMER: But we don't have that information.

25 MR. BAAKE: Is it logically possible that you

1 might have 42 percent of the wells, the ones that are
2 producing the most, might have 80 percent of the
3 pneumatics?

4 MR. PALMER: I don't have the information to
5 answer that question.

6 MR. BAAKE: So would you agree that more analysis
7 would probably need to be done to actually do a comparison
8 between the two proposals?

9 MS. KATZ: And Madam Hearing Officer, I believe
10 that is the point that we were trying to say about
11 Mr. McCabe's analysis. So the line of questioning is kind
12 of just going on and on.

13 HEARING OFFICER ORTH: All right. Thank you.
14 Mr. Baake?

15 MR. BAAKE: I mean, I don't necessarily agree. I
16 think their point was that their proposal was stronger
17 than ours. And it's -- so, anyway, but if the point is
18 that it's not -- if it's not known, then I accept the
19 point.

20 MS. KATZ: I believe the counter was that it was
21 in counter to Mr. McCabe's definitive statement that ours
22 was much slower than -- than his proposal.

23 MR. BAAKE: I did have one final shift in gears,
24 one final question. And this was actually something that
25 Ms. Kuehn testified to.

1 The question from Ms. Katz was -- oh -- but,
2 actually, I would still like that table, if possible.
3 It's really hard to ask these questions without the table.

4 MR. PALMER: Okay. Sorry, I thought you were
5 shifting gears.

6 MR. BAAKE: I am shifting gears, but -- but in a
7 way it's still -- having the table would still be helpful.

8 So -- so I believe Ms. Katz asked the question
9 that -- of whether it would make sense for New Mexico to
10 have a longer phase-in period than Colorado, given that
11 Colorado has done more in the past. Do you remember that
12 question, Ms. Kuehn?

13 MS. BISBEY-KUEHN: No, that's not the question
14 that was asked.

15 MR. BAAKE: Oh. Could you -- could you tell me
16 what you recall the question was?

17 MS. BISBEY-KUEHN: The question was, in your
18 previous testimony you discussed how Colorado has been
19 regulating pneumatic controllers since 2009. And that
20 this fact is part of why Colorado's approach is not
21 appropriate for New Mexico. Does EDF's argument that the
22 retrofit schedule in the Department's proposal is slower
23 than Colorado's rule take into account the higher number
24 of controllers based out in New Mexico compared to
25 Colorado.

1 MR. BAAKE: Okay. I appreciate it. That's --
2 glad to have that. So I guess my question is, if an
3 operator is -- this is -- are you familiar with the
4 Colorado rule?

5 MS. BISBEY-KUEHN: I'm somewhat familiar. I'm
6 not an expert in the Colorado rule, so I can't speak to
7 specific Colorado requirements.

8 MR. BAAKE: To the extent you're familiar with
9 it, do you recall that Colorado has, like the Department's
10 proposal here, a cohort where it starts at zero percent?

11 MS. BISBEY-KUEHN: That's within the context of
12 this table, right. So there are -- there are other
13 regulations in place that target pneumatic controller
14 reductions that have been in place for over a decade in
15 Colorado, so it's not -- you can't -- I don't think you
16 can make those comparisons.

17 MR. BAAKE: But there is -- there is still what's
18 part of the new Colorado rule, that there's not a finished
19 increase requirement for operations to start at zero and
20 20 percent?

21 MS. BISBEY-KUEHN: That's what the -- I believe
22 that's true, but I don't know that for sure.

23 MR. BAAKE: So if an operator -- so putting aside
24 what Colorado has done in the past, is there a reason why
25 you couldn't compare the obligations of an operator

1 starting at zero percent in New Mexico, and an operator
2 starting at zero percent in Colorado?

3 MS. BISBEY-KUEHN: You can't make that comparison
4 because there are longstanding, established regulatory
5 requirement for controllers in New Mexico -- in Colorado.
6 Excuse me.

7 MR. BAAKE: All right. But I guess I'm trying to
8 figure out why that's relevant if you're just looking at,
9 where do you start, and saying how much you have to
10 increase from where you start?

11 MS. BISBEY-KUEHN: It's relevant because they're
12 starting at different baselines, so that's incredibly
13 relevant. Yes, that is very important.

14 MR. BAAKE: But -- but for each baseline, you can
15 say if you're starting at 60 percent, you have to do this
16 in New Mexico, and this in Colorado, right?

17 MS. BISBEY-KUEHN: No. They've already made
18 requirements that achieved important reductions and so the
19 baseline is very different between the two states.

20 MR. BAAKE: What I guess I don't understand is,
21 this table that New Mexico has, and that Colorado has,
22 there's different obligations, depending on where you'd
23 start, so the baseline is already taken into account, is
24 it not?

25 MS. BISBEY-KUEHN: No. No, it's not taken -- I

1 mean, within Colorado's entire regulatory framework for
2 pneumatics, it's taken into account, but you can't
3 translate that into this concept, into this table for New
4 Mexico.

5 MR. BAAKE: Okay. I guess -- I mean, I've asked
6 the question several times and I guess I don't understand
7 the answer. Why -- why someone starting at 20 percent in
8 Colorado, versus someone starting at 20 percent in New
9 Mexico, why that comparison cannot be made. Is there any
10 other elaboration you can give on that, or am I not asking
11 the question correctly?

12 MS. BISBEY-KUEHN: No, I've answered the
13 question. The baselines are different and you can't
14 compare where the baselines --

15 MR. BAAKE: But for any individual operator, you
16 can?

17 MS. BISBEY-KUEHN: I've answered the question.

18 MS. KATZ: I believe -- I believe Ms. Kuehn has
19 answered this as much as she can understand what Mr. Baake
20 is asking.

21 HEARING OFFICER ORTH: Yeah, I think she's been
22 trying to answer your question, Mr. Baake. And I'm
23 wondering if you have other questions.

24 MR. BAAKE: That's -- that's the only question,
25 but I -- yeah, I -- I -- I -- I don't understand why

1 it's -- why it's not coming through, because I think I've
2 asked it in a very clear way, and I've not gotten an
3 answer, but that's all right. We can move on.

4 HEARING OFFICER ORTH: All right. Thank you.
5 Any other parties or counsel with questions of this
6 Department panel? Just turn on your screen.

7 I see Mr. Janoe. Mr. Janoe?

8 MR. JANOE: Thank you, Madam Hearing Officer. I
9 have questions for Mr. Palmer, perhaps for
10 Ms. Bisbey-Kuehn.

11 CROSS-EXAMINATION OF ELIZABETH BISBEY-KUEHN

12 AND BRIAN PALMER (Pneumatics)

13 BY MR. JANOE:

14 MR. JANOE: So I'm understanding correctly, I
15 think I heard you testify that 92 percent of production in
16 New Mexico is accounted for by 42 percent of the wells in
17 New Mexico. Do I have that right?

18 MR. PALMER: That is what I estimated based on
19 the New Mexico well data.

20 MR. JANOE: Okay. And -- and were it true -- and
21 I understand there can a difference of opinion on this,
22 sir, but were it true that controlling the pneumatics at
23 42 percent of those wells would, in fact, control 92
24 percent of the pneumatic emissions, would you be fine with
25 that?

1 MR. PALMER: I don't believe you can make that
2 connection exactly.

3 MR. JANOE: I appreciate -- I appreciate that
4 that's not your testimony. I'm asking you to bear with me
5 as an expert in a hypothetical here. But if it were true
6 that we could control 42 percent of the wells, and,
7 thereby, control 92 percent of the production and the
8 emissions from pneumatics, you'd be okay with that,
9 correct?

10 MR. PALMER: That's not my decision.

11 MR. JANOE: Okay. Well, it would be important to
12 air quality if controlling 42 percent of those wells
13 reduced 92 percent of the emissions, right?

14 MR. PALMER: Controlling 92 percent of the
15 emissions would be great.

16 MR. JANOE: Okay. And if we could do that at 42
17 percent of the wells, in your own personal opinion,
18 Mr. Palmer, would that be okay?

19 MR. PALMER: If that were the result, I think
20 that would be good for air quality.

21 MR. JANOE: Okay. And -- and, sir, I think I
22 further understood your testimony to say, in essence, that
23 you're not sure if the relationship between high producers
24 and pneumatic emissions pans out across all producers, is
25 that -- is that a fair way of putting it?

1 MR. PALMER: I am not sure. There's, as we've
2 heard a lot of testimony, there's a lot of uncertainty in
3 the emissions from these controllers, and some of them
4 have very high emissions because of malfunctions. So it's
5 not clear to me, personally, whether there is a strong --
6 I'm sure there's some relationship, but I'm not sure it's
7 strong enough to advocate for one regulatory approach over
8 another.

9 MR. JANOE: And Mr. Palmer, I think Mr. Baake was
10 trying to ask this question a little bit earlier. But
11 would you -- does it stand to reason that a facility with
12 more liquid production would have more pneumatics?

13 MR. PALMER: It's -- I would not be surprised if
14 that were true. I would expect it to be true.

15 MR. JANOE: And would you --

16 MR. PALMER: I would say it's likely that, yes,
17 more equipment all around. Fair enough.

18 MR. JANOE: And would you expect that a facility
19 that is producing more liquids, that there be more
20 actuation of pneumatics at such facility?

21 MR. PALMER: That's my understanding of how they
22 work.

23 MR. JANOE: So it stands to reason, bigger
24 facilities with more pneumatics would have more emissions
25 than smaller facilities with less pneumatics, right,

1 Mr. Palmer?

2 MR. PALMER: Correct.

3 MR. JANOE: Okay. And -- and you don't have any
4 testimony on whether there's a linear relationship between
5 the number of pneumatics and the volume of production,
6 correct?

7 MR. PALMER: I don't. However, still, there is a
8 lot of testimony presented earlier about the fact that
9 some pneumatics can account for very high emissions
10 because of malfunctions.

11 MR. JANOE: Okay. And a program that would
12 prioritize higher emissions would address that concern,
13 though, wouldn't it, sir?

14 MR. PALMER: It depends on what's in that
15 program.

16 MR. JANOE: Okay. Well, a good program like the
17 one proposed by the NMED that requires inspections of
18 pneumatics to determine whether they're malfunctioning,
19 don't you think we could find the malfunctioning ones and
20 fix them, sir?

21 MR. PALMER: I believe that is one of the
22 objectives, yes.

23 MR. JANOE: And no one is questioning the
24 inspection provision as it relates to pneumatics here,
25 right, sir?

1 MR. PALMER: Not that I'm aware of, no.

2 MR. JANOE: Just the timing on the retrofits,
3 right?

4 MR. PALMER: That seems that to be -- the
5 question that was raised by Dr. McCabe was on timing. And
6 he was saying that the Department's proposal was less
7 stringent because of the timing issue, and that is what I
8 was responding to. I was not responding to the production
9 issue; it was the timing issue that he had raised.

10 MR. JANOE: And to be clear, I'm not going to
11 pick on you, Mr. Palmer, about the timing between the two
12 proposals. What I'm trying to get out is what's going to
13 be better for the environment. So if there were testimony
14 that getting out there, and concentrating on the bigger
15 producers, and the higher emissions, instead of an
16 arbitrary number like the number of sites, if that were
17 better for the environment, would you be for it, sir?

18 MR. PALMER: The fair proposal allows operators
19 to prioritize sites as they see fit.

20 MR. JANOE: But it also requires an arbitrary
21 number of retrofits at the back end of that process,
22 regardless of whether it achieves an emissions reduction,
23 correct, Mr. Palmer?

24 MR. PALMER: I don't believe that -- I don't
25 think it's correct to characterize that as arbitrary. I

1 think that's a misleading word to use.

2 MR. JANOE: Okay. Fair enough. I'll use a
3 different word then. Sir, if we get out there and really
4 control for the big emitters and reduce emissions from
5 pneumatics at, say, 42 percent of the wells, and that
6 achieves 92 percent of the reduction, what's the
7 importance of the rest of that 58 percent of wells, if
8 we've really achieved the reductions needed for
9 attainment?

10 MR. PALMER: I don't know, I think that goes
11 beyond the scope of the question. That's still a
12 percentage of the emissions from pneumatics. There are
13 flexibility provisions in this rule as well. There is the
14 75 percent threshold; if you reach 75 percent of
15 pneumatics replacement, then you can stop early.

16 MR. JANOE: Right. Well, but that would still --
17 I mean, in my hypothetical, sir, going from 42 to 75 means
18 I'm still working on 33 percent that really don't give me
19 a lot of bang for my buck, right?

20 MR. PALMER: I believe you've already asked that
21 question.

22 MS. KATZ: Madam Hearing Officer, there's a lot
23 of repetition and it's all based on hypotheticals without
24 actual backup from any of the testimony. So I'm just -- I
25 feel like this is going on and on, and assuming a lot of

1 things.

2 HEARING OFFICER ORTH: All right. No, I hear it.

3 Mr. Janoe, to move to a different point, though,
4 we do need a break before the 5:00 public comment session.
5 I'm wondering if you're about ready to wrap up, or if we
6 can just continue after public comment.

7 MR. JANOE: Two more questions, Madam Hearing
8 Officer, and I promise I'll be done.

9 HEARING OFFICER ORTH: All right.

10 MR. JANOE: What's more important than
11 maintaining attainment with the ozone standard; the number
12 of wells that are controlled, or the volume of emissions
13 that are reduced?

14 MR. PALMER: There was plenty of testimony on the
15 modeling and the emission reductions that were needed to
16 meet the ozone standard, so I will ask you to refer to
17 that testimony.

18 MR. JANOE: Sure. Sir, you would agree with me,
19 though, that attainment will be determined by how many
20 emissions we reduce, not necessarily how many wells we
21 control?

22 MR. PALMER: I believe that we will reach
23 attainment when we have been able to reduce a certain
24 amount of emissions. So how we get there is -- it's up to
25 the Board.

1 MR. JANOE: But emissions matter, not necessarily
2 number of wells, correct, sir?

3 MR. PALMER: Ultimately.

4 MR. JANOE: Thank you, Mr. Palmer. Nothing
5 further.

6 HEARING OFFICER ORTH: All right. We do need a
7 break. Let's come back at 5:03, please, SO we can have a
8 15-minute break. Thank you.

9 (Recess taken from 4:48 p.m. to 5:03 p.m.)

10 HEARING OFFICER ORTH: Let's come back from the
11 break, please.

12 We are back after a short break and we've reached
13 the 5 p.m. public comment session. We accept public
14 comment in EIB 21-27 every day at 9, 1 and 5. The three
15 commenters who reached out to the Board Administrator are
16 in this order: Carla Sonntag, Victor Snover and John
17 Maddaus. If you are on the platform and would like to
18 offer public comment, but haven't reached out to the
19 administrator, I'm still happy to take your comment, just
20 reach out through Chat, which is enabled for everyone or
21 call or text Pam Jones at (505) 660-4305.

22 Public comment is taken under oath, is taken by
23 audio, not video, and is limited to five minutes. So let
24 me find Ms. Sonntag first. Ms. Sonntag, I've unmuted you.
25 Can you hear me?

1 MS. SONNTAG: Yes, ma'am.

2 HEARING OFFICER ORTH: Oh, good. Your voice is
3 nice and clear. If you would please spell your name for
4 the transcript?

5 MS. SONNTAG: Carla, C-A-R-L-A. Sonntag,
6 S-O-N-N, T like Tom, A-G.

7 HEARING OFFICER ORTH: Thank you. And raise your
8 right hand. Do you swear or affirm to tell the truth?

9 MS. SONNTAG: I do.

10 HEARING OFFICER ORTH: Thank you. I'll start
11 your five minutes now.

12 CARLA SONNTAG,
13 having been first duly sworn or affirmed,
14 gave public comment as follows:

15 PUBLIC COMMENT OF CARLA SONNTAG

16 MS. SONNTAG: Thank you for the opportunity to
17 speak with you this evening. I'm Carla Sonntag, President
18 of the New Mexico Business Coalition, which is a statewide
19 nonpartisan association that seeks to find balance in New
20 Mexico's laws and regulations, to provide the best
21 solutions for the sake of our people.

22 New Mexico is a wonderful state, and we all agree
23 that we want to keep it that way, but striving to impose
24 the country's most stringent rules to the detriment of
25 some of our people is not a goal anyone should support.

1 We have seen oil and natural gas producers
2 proactively accomplishing much other the past several
3 years to minimize release and flaring of methane. We urge
4 you to allow this process to continue, with flexible
5 regulations that promote this problem-solving creativity.
6 That would allow producers to develop and implement
7 cutting-edge technologies. This type of innovation would
8 be much more beneficial to all of us in the long term.
9 Fortunately, the oil and gas industry is doing well right
10 now and providing a huge surplus for state revenue. We
11 know, however, this is cyclical and will not continue
12 forever.

13 There is debate over the financial impact this
14 rule would have to the state, but we can all agree, it is
15 significant. While the state is flush with cash, the
16 administration may believe the financial impacts are not a
17 problem; unfortunately, the extra wealth the state is
18 receiving now will not last forever. And when we hit our
19 next down cycle, as we will, we will experience a greater
20 impact of this rule at that time.

21 While the proposed rule has been changing, even
22 right up to the start of this hearing, it's concerning to
23 hear any discussion -- discussion that could impact the
24 recycling of produced water from oil and gas operations.
25 The state should encourage the industry to recycle

1 produced water so that freshwater stays in our streams and
2 aquifers. We need to make sure that the final rule will
3 allow continuation of produced water ponds so that oil and
4 gas companies in our state can keep investing in and
5 recycling water.

6 This proposed rule will affect our smaller
7 producers disproportionately. We appreciate the attempt
8 to consider those smaller producers, but we don't believe
9 it is accomplishing what it should. I encourage you to
10 work closely with industry producers to find a way to
11 accomplish what is desired and save as many people as
12 possible from the unemployment line. We're going to feel
13 a ripple effect from the implementation of this rule. As
14 local taxes drop, several communities will be affected.

15 The Four Corners area has been pummeled by other
16 issues and will be hard pressed to withstand another blow,
17 but many communities will feel this loss. We're also
18 going to see an impact on associated businesses that
19 supply goods and services to the industry. After the last
20 18 months of COVID-related issues, our businesses need a
21 break.

22 The rule as it currently stands could cost the
23 state more than 1,200 industry jobs and 3,200 related jobs
24 across the state. What's most important, though, is
25 talking about the people behind those numbers, because

1 what we should be talking about is the impacts to the
2 lives and livelihoods of some incredible people in this
3 state. These aren't just jobs. These jobs represent
4 people who work hard every day to provide for their
5 families, to feed their children, and make sure they have
6 a home to live in.

7 Please consider the full impact of your decisions
8 on our people and put them first. Thank you.

9 HEARING OFFICER ORTH: Thank you very much,
10 Ms. Sonntag. We'll go now to Mr. Snover, and I saw you on
11 the platform. Mr. Snover, I've unmuted you. Can you hear
12 me?

13 MR. SNOVER: I can. Can you hear me?

14 HEARING OFFICER ORTH: Yes, very clearly. Thank
15 you. Would you spell your name, please.

16 MR. SNOVER: Yes. It is Victor, V-I-C-T-O-R.
17 And Snover, S-N, like Nancy, O-V, like Victor, E-R.

18 HEARING OFFICER ORTH: Thank you. Raise your
19 right hand. Do you swear or affirm to tell the truth?

20 MR. SNOVER: I do.

21 HEARING OFFICER: Thank you. I'll start your
22 five minutes now.

23 VICTOR SNOVER,
24 having been first duly sworn or affirmed,
25 gave public comment as follows:

1 PUBLIC COMMENT OF VICTOR SNOVER

2 MR. SNOVER: Okay. Well, thank you for allowing
3 me to speak. I appreciate the opportunity. Thanks to
4 everybody that's been appearing so far in this testimony
5 throughout the entire process. And I will be brief. I
6 have a commission meeting to go to soon, so I just want to
7 say, you know, in a letter that was sent to the New Mexico
8 EIB, myself, along with 25 other elected officials
9 representing what really amounts to hundreds of thousands
10 of New Mexicans, was signed by us urging the passage of a
11 strong methane rule.

12 I also want to thank Governor Lujan Grisham for
13 committing to passing what has become the strongest
14 methane rules in the nation. And as elected officials, we
15 all recognize that states and federal -- and the federal
16 government have not really moved quickly enough to combat
17 climate change. And because of that, we have to do more
18 as states, to do more to take on this existential crisis
19 that threatens the West's economy, and its public health,
20 from increased temperatures, drought and wildfires.

21 We urge the EIB to make good on the Governor's
22 commitment to implement the strongest rules in the nation,
23 which include robust leak detection and repair
24 requirements, robust timelines for retrofitting existing
25 equipment with pollution control equipment, and installing

1 pollution control equipment at new facilities, and
2 increased LDAR for oil and gas operations.

3 A lot of this technology exists, it can be done.
4 We just have to -- we just have to get it done. And I
5 appreciate the time that you've given me, and for
6 everybody attending today and that has attended during
7 this hearing process throughout. So thank you very much
8 and that is all I have. Thank you.

9 HEARING OFFICER ORTH: Thank you, Mr. Mayor.

10 Let me go, then, to the final commenter for this
11 session, John Maddaus. Mr. Maddaus, I'm unmuting you.
12 Can you hear me?

13 MR. MADDAUS: Yes, I can. Can you hear me?

14 HEARING OFFICER ORTH: Yes, I can. Thank you.
15 Would you spell your name, please.

16 MR. MADDAUS: John, J-O-H-N. Maddaus,
17 M-A-D-D-A-U-S.

18 HEARING OFFICER ORTH: Thank you. And if you
19 would raise your right hand. Do you swear or affirm to
20 tell the truth?

21 MR. MADDAUS: Yes.

22 HEARING OFFICER ORTH: Thank you. I'll start
23 your five minutes now.

24 JOHN MADDAUS,
25 having been first duly sworn or affirmed,

1 gave public comment as follows:

2 PUBLIC COMMENT OF JOHN MADDAUS

3 MR. MADDAUS: Thank you for the opportunity to
4 speak at this hearing. I am John Maddaus. I'm a resident
5 of Albuquerque and a member of the First Congregational
6 Church, the United Church of Christ. We are a green
7 justice church. In May 2016, we voted to become a green
8 justice congregation. The First Congregational United
9 Church of Christ recognizes the interconnectedness of all
10 creation as a manifestation of God.

11 We commit ourselves to care for mother earth's
12 resources in a responsible and just way. We dedicate
13 ourselves to take concrete steps to reduce our carbon
14 footprint and urge community members to join this effort.

15 We affirm environmental justice and embrace the
16 global effort to preserve the earth's resources for
17 generations to come by educating, using resources
18 responsibly, establishing relationships with other
19 organizations invested in sustainability, and promoting
20 policies that ensure a safe and healthy environment for
21 all.

22 I support strong ozone precursor rules and strict
23 enforcement of those rules. The great tragedy of the
24 Industrial Revolution of the last 300 years or so, has
25 been the externalization of costs in order to increase

1 profits by dumping toxic chemicals on our soils, into our
2 waters, and into the air we breathe.

3 If this were a case of heavy toxic chemicals,
4 such as mercury, being dumped on the soils of an
5 industrial site and into adjacent waters, the site would
6 long ago have been designated a super fund site, and the
7 responsible corporation forced to spend billions of
8 dollars on cleanup.

9 Does dumping gaseous toxic chemicals, including
10 methane, into the air make it okay, just because there is
11 no identifiable site? No, it is not okay. Already, there
12 are industrial sacrifice zones where these toxic gases
13 have concentrated and where it is difficult to live
14 because it is difficult to breathe. And as toxic gases,
15 specifically methane, are dispersed in the air, they
16 contribute to heat waves, droughts, wildfires, extreme
17 weather events, ocean acidification and sea level rise.

18 Already, there are climate refugees fleeing from
19 our Gulf Coast and from nations such as Haiti and
20 Honduras. If climate change continues, there will
21 eventually be no place to run to. The atmosphere of our
22 earth, upon which all life depends, is thin and fragile.
23 We must protect it. Stop releases of methane and other
24 toxic gases now.

25 Thank you to the Environmental Improvement Board

1 for this hearing and for all your work on this issue.

2 HEARING OFFICER ORTH: Thank you very much,
3 Mr. Maddaus.

4 All right. That is the end of the public
5 comment. We'll return to finish up the questioning of the
6 Department's panel. Ms. Katz, Mr. Palmer, Ms. Kuehn, if
7 you would rejoin us on screen. Thank you.

8 And I believe -- I think we had finished
9 questioning by Mr. Janoe. And it appeared perhaps
10 Mr. Hiser had questions. Mr. Hiser?

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

12 CROSS-EXAMINATION OF ELIZABETH BISBEY-KUEHN

13 AND BRIAN PALMER (Pneumatics)

14 BY MR. HISER:

15 MR. HISER: Ms. Kuehn, do you, as the Air Quality
16 Bureau Chief making recommendations to the Board, believe
17 that the mix of controls that the Department has selected
18 in the Department's pneumatics proposal, which is a
19 relatively rapid implementation of leak detection and
20 repair on these devices to prevent malfunctions,
21 incentives for early reductions by those who have the
22 financial capability to do so, and the slightly longer
23 extended period for those who may not have the financial
24 capability to do that, represents the optimum mix for the
25 peculiar circumstances in which New Mexico finds itself

1 now?

2 MS. BISBEY-KUEHN: I do, and in addition to the
3 inclusion of the small business facility definition.

4 MR. HISER: Thank you, Ms. Kuehn. I forgot that
5 is part of your proposal, but it is part of your proposal
6 as well.

7 With -- and then I know that Mr. Palmer spoke to
8 the reductions that would be seen, but, in fact, is it not
9 true that there would be somewhat higher reductions toward
10 the beginning of that phase-out period, as the LDAR
11 program also started to go into effect and we captured
12 more of the emissions from malfunctioning devices, as they
13 were fixed and repaired?

14 MS. BISBEY-KUEHN: That is likely true.

15 MR. HISER: Thank you, Ms. Kuehn.

16 HEARING OFFICER ORTH: All right. Thank you,
17 Mr. Hiser.

18 Are there any other parties with questions of the
19 ED's surrebuttal panel. Seeing nothing, I'll turn to the
20 Board for their questions. While I'm doing that, if
21 you're on the platform and have a question, please reach
22 out through the Chat.

23 EXAMINATION BY THE BOARD OF ELIZABETH BISBEY-KUEHN

24 AND BRIAN PALMER (Pneumatics)

25 HEARING OFFICER ORTH: Madam Chair?

1 CHAIRPERSON SUINA: Thank you, Madam Hearing
2 Officer. Actually, Mr. Hiser asked my questions, so thank
3 you again for your testimony, Mr. Palmer and Ms. Kuehn.

4 HEARING OFFICER ORTH: Thank you. Vice-Chair
5 Trujillo-Davis?

6 VICE-CHAIR TRUJILLO-DAVIS: Yes. Thank you. I
7 believe this question would be for Ms. Kuehn. I'm just
8 curious, I wanted to see if I understood correctly your
9 exchange with Mr. Baake, is that the -- the table that was
10 showing us from the Colorado rule, that's a snapshot of
11 the rule. And that, you really -- is this -- I'm
12 paraphrasing what I think you were -- you were saying.

13 But to really understand the baseline, you had to
14 look at other portions of the rule and take the whole
15 thing in context, rather than just looking at this one
16 table? Do I -- do I -- did I understand that from you?

17 MS. BISBEY-KUEHN: You are correct. And the
18 table that they were pointing to is their own proposal, so
19 they were comparing their own joint proposal with our
20 current proposal. And you are correct, that the baselines
21 are different, and so you have to look at the Colorado
22 rule in its entirety to understand what emission
23 reductions have already been achieved under that program,
24 to understand why they have developed the concept, and why
25 that concept was appropriate for Colorado today.

1 VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you. I
2 appreciate that. And I think that's all the questions I
3 have right now.

4 HEARING OFFICER ORTH: Thank you. Member Cates?

5 BOARD MEMBER CATES: Yeah, and I appreciate the
6 clarifying question from Member Davis and the answer from
7 Mr. -- I'm sorry, from Ms. Kuehn. Thank you.

8 HEARING OFFICER ORTH: Thank you. Member Bitzer?

9 BOARD MEMBER BITZER: I have no questions. Thank
10 you.

11 HEARING OFFICER ORTH: Thank you. Member Garcia?

12 BOARD MEMBER GARCIA: No questions. Thank you.

13 HEARING OFFICER ORTH: Thank you. And Member
14 Honker?

15 BOARD MEMBER HONKER: No questions. Thank you.

16 HEARING OFFICER ORTH: Thank you very much.
17 Thank you, Ms. Kuehn and Mr. Palmer and Ms. Katz. I
18 believe then --

19 MS. KATZ: Sorry. Can I do some redirect after
20 the cross and the Board's questions?

21 HEARING OFFICER ORTH: Oh, I'm very sorry. I
22 rushed right past that. Go ahead.

23 MS. KATZ: That's all right. It will be short.

24 REBUTTAL REDIRECT EXAMINATION OF ELIZABETH BISBEY-KUEHN

25 AND BRIAN PALMER (Pneumatics)

1 MS. KATZ: Just a few questions here.

2 Ms. Kuehn, did Oxy and the Environmental NGOs put
3 on any data or evidence supporting their claim that their
4 approach will result in far greater emissions reductions
5 far sooner than the Department's proposed approach?

6 MS. BISBEY-KUEHN: No, they did not.

7 MS. KATZ: And does the Department's proposal
8 allow operators to prioritize high production sites?

9 MS. BISBEY-KUEHN: Yes.

10 MS. KATZ: And would that be the like -- would
11 that be the most likely course of action they would take,
12 because that would be the most cost effective to retrofit
13 first?

14 MS. BISBEY-KUEHN: Yes.

15 MS. KATZ: And Mr. Palmer, so just because the
16 NMED timeline goes out further than that proposed by the
17 Environmental NGOs and Oxy, does that mean that NMED's
18 approach is less stringent?

19 MR. PALMER: No. Because NMED's approach is
20 based on controller count rather than production, it is
21 requiring replacement of a greater number of controllers,
22 and that means that there will be fewer controllers out
23 there that will have the potential to emit and the
24 potential to malfunction as well.

25 MS. KATZ: Okay. Thank you. That's all I have.

1 HEARING OFFICER ORTH: All right. Thank you,
2 Ms. Katz. All right. Now I think we want
3 Ms. Gutierrez -- oh, wait. Vice-Chair Trujillo-Davis?

4 VICE-CHAIR TRUJILLO-DAVIS: Yes, I have one more.
5 Can I ask a question of Mr. Holderman? Is that
6 appropriate at this time? I've lost count of where we are
7 in the process here, so...

8 HEARING OFFICER ORTH: Right. So, let's
9 complete -- if we're done with the Environment
10 Department's surrebuttal panel, let's let them go. Thank
11 you, Mr. Palmer, Ms. Katz, and Ms. Kuehn.

12 We have Mr. Janoe on screen. Mr. Janoe, do we
13 still have Mr. Holderman available?

14 MR. JANOE: Mr. Holderman is here and happy to
15 answer questions.

16 HEARING OFFICER ORTH: All right. Vice-Chair?

17 VICE-CHAIR TRUJILLO-DAVIS: Thank you. And I
18 apologize for losing our space in this very complex
19 hearing. So thank you for accommodating me.

20 REBUTTAL EXAMINATION BY THE BOARD OF DANNY HOLDERMAN

21 VICE-CHAIR TRUJILLO-DAVIS: Mr. Holderman, I had
22 kind of just a -- like a basic question about operations.
23 When somebody conducts an LDAR report or an LDAR survey,
24 do -- and they find a pneumatic that is out of compliance
25 or leaking, do they -- do they fix it?

1 MR. HOLDERMAN: Yeah. I guess if you go to 0000a
2 compliance or something like that, you have 30 days to fix
3 any leaks that you find. I'm trying to remember the
4 number off the top of my head here, but, yes, if we do
5 LDARs, we -- we typically would target a week or so, if
6 it's equipment that we have on hand; it sometimes takes
7 longer if you have to order new equipment that you don't
8 have in your stock, but, yeah, we do fix it.

9 VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you. I
10 was just trying to reconcile some of the testimony that we
11 heard about failures of them. So, as I understand, if you
12 do a survey, you do fix -- fix a -- any sort of leak?

13 MR. HOLDERMAN: Yes.

14 VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you for
15 that. I appreciate it.

16 HEARING OFFICER ORTH: All right. Thank you.
17 Let's turn now to Ms. Gutierrez and Ms. Nolting.

18 MS. GUTIERREZ: Thank you, Madam Hearing Officer.
19 And I know we are well into our hearing fatigue, so we
20 will aim to keep this just as brief as possible.

21 For everybody's benefit, we will be referring to
22 Kinder Morgan Rebuttal Technical Testimony at Exhibit 17.

23 LESLIE NOLTING,
24 having been previously sworn or affirmed, was examined
25 and testified as follows:

1 DIRECT EXAMINATION OF LESLIE NOLTING

2 BY MS. GUTIERREZ: (Pneumatics)

3 Q. Ms. Nolting, as your qualifications have already
4 been presented, can you please introduce yourself to the
5 Board?

6 A. Yes. Hi, my name is Leslie Nolting. I am an EHS
7 manager at Kinder Morgan, focusing on air permitting and
8 compliance. I just want to say thanks, everyone, for
9 their patience with my technical difficulties earlier.
10 Thank you.

11 Q. Thank you. Did you submit written rebuttal
12 technical testimony at Exhibit 17 regarding pneumatic
13 devices?

14 A. Yes, I did.

15 Q. Do you have any changes to that testimony? And
16 if not, do you adopt your written testimony here today?

17 A. I don't have any changes and yes, I adopt it in
18 full.

19 Q. Were you able to hear NMED's presentations, and
20 multiple of them, regarding pneumatic controllers both
21 this morning and this afternoon?

22 A. Yes.

23 Q. Following that presentation, does Kinder Morgan
24 have any additional requests or revisions to the
25 Department's proposed Section 122?

1 A. We do not. We support the NMED's proposed
2 Section 122 as described by Ms. Kuehn in her testimony
3 this morning. In particular, we appreciate that
4 clarification that the Department intends for that table
5 to schedule -- as the schedule for achieving the certain
6 percentages of nonemitting controllers at transmission
7 compression stations.

8 Q. Thank you. So to be clear, following discussions
9 with the Department, Kinder Morgan is not asking for an
10 exemption from this rule section, and supports the
11 reasonable timelines proposed by the Department with
12 respect to transmission compressor stations?

13 A. Yes, that's correct.

14 Q. Thank you, Ms. Nolting.

15 And were you able to review the alternate
16 proposal from the environmental groups: Clean Air
17 Advocates, EDF, Center for Civic Policy and NAVA?

18 A. Yes.

19 Q. Is it your understanding that the -- this
20 proposal is proposing that any site with commercial power
21 retrofit all emitting controllers to nonemitting within
22 six months of the effective date?

23 A. That is my understanding, yes.

24 Q. Do all of your transmission compressor stations
25 have commercial power?

1 A. We do have commercial power at all of our
2 transmission compressor stations, but there's an important
3 point that cannot be left out of this conversation; the
4 fact that we do have purchase power does not uniformly
5 mean that we have adequate power for any additional
6 equipment, meaning in most cases we limit the electric
7 power, including the infrastructure, to only what is
8 needed to power the relevant equipment.

9 If additional equipment is added to pull from
10 that same power source, in many cases we may have to
11 upgrade the electrical system. It's inaccurate to
12 uniformly assume that any electric power source is
13 adequate power.

14 Q. Thank you, Ms. Nolting.

15 And as a point of clarification from prior
16 testimony by Dr. McCabe, do you have backup power at all
17 transmission compressor stations?

18 A. No. There are two stations that I know of off
19 the top of my head that we do not have backup power in
20 those subject counties for this rule.

21 I think Dr. McCabe's statement on this issue
22 was -- might have been based on our testimony regarding
23 emergency engines, in which we were speaking in general
24 terms regarding the use of those engines, but I can
25 confirm that it is not the case that we have backup power

1 at all of our stations.

2 Q. Thank you. And referring back to the
3 environmental group proposal, is the six-month proposed
4 timeline to retrofit all emitting pneumatic controllers
5 reasonable and feasible?

6 A. No, it is not.

7 Q. Can you please describe some of your concerns
8 with this proposal?

9 A. Yes. As I just mentioned, even if we have power
10 it may not be adequate for the retrofits or replacements
11 of those devices that might -- that will be required. To
12 be able to receive more power, the existing electric
13 infrastructure at the site may need to be upgraded. This
14 could require significant design and facility
15 modifications, which would not only be extremely costly,
16 but is easily a multiyear process.

17 Second, even if sites have adequate commercial
18 power, a six-month timeline is not feasible for
19 retrofitting or replacing all controllers. We first need
20 to do an inventory of all of those controllers, which is a
21 significant undertaking in and of itself. We would need
22 to do engineering and design. Based on my experience,
23 once we place an order for nonemitting controllers, it
24 would take three to six months to receive the equipment.
25 There is the added time to schedule the work for the

1 retrofit of each station.

2 Again, this is a significant and sometimes
3 multiyear process, which is why the Department's base
4 schedule makes good sense.

5 Q. Thank you. And is it also your understanding
6 that the environmental groups' proposal would further
7 require any transmission compressor station to retrofit to
8 nonemitting within six months, without regard for whether
9 the site has commercial power?

10 A. That is my understanding.

11 Q. Do you have concerns regarding this proposal?

12 A. Again, we don't have any sites without commercial
13 power, but for those same reasons I stated before, six
14 months for a site, even with commercial power, is not
15 workable. If there's a case where a site has no access to
16 grid power, an expectation for retrofit within six months
17 or even several years is infeasible.

18 Q. And to your knowledge, did these groups produce
19 any technical evidence, detailing the feasibility of
20 transmission compressor stations retrofitting pneumatic
21 controllers to nonemitting within six months?

22 A. Not to my knowledge. Clean Air Advocates makes
23 the broad statement that because transmission compressor
24 stations generally have access to the electric power, that
25 it would be "easy."

1 However, they produced no technical evidence,
2 discussion or analysis of modifications that may be
3 required if current electricity is inadequate to support
4 the additional equipment.

5 Q. And lastly, does Kinder Morgan ask that the Board
6 reject the alternate proposal as it related to
7 transmission compression?

8 A. Yes, it is not a sound proposal.

9 Q. Thank you.

10 MS. GUTIERREZ: And I offer Ms. Leslie Nolting
11 for cross-examination.

12 HEARING OFFICER ORTH: Thank you very much,
13 Ms. Nolting and Ms. Gutierrez.

14 If you're a party with questions of Ms. Nolting,
15 please turn on your camera.

16 Not seeing anyone, I will turn then to questions
17 from the Board. While I'm doing that, if you are on the
18 platform as an attendee, please reach out through the Chat
19 with any questions.

20 Madam Chair?

21 CHAIRPERSON SUINA: Madam Hearing Officer, I have
22 no questions. Thank you.

23 HEARING OFFICER ORTH: Thank you. Vice-Chair
24 Trujillo-Davis?

25 VICE-CHAIR TRUJILLO-DAVIS: I don't have any

1 questions. Thank you.

2 HEARING OFFICER ORTH: Member Cates?

3 BOARD MEMBER CATES: No questions. Thanks.

4 HEARING OFFICER ORTH: Thank you. Member Bitzer?

5 BOARD MEMBER BITZER: No questions. Thank you.

6 HEARING OFFICER ORTH: Member Garcia?

7 BOARD MEMBER GARCIA: No questions. Thank you.

8 HEARING OFFICER ORTH: Thank you. And Member

9 Honker, who I believe just had to depart a minute ago.

10 All right.

11 Thank you very much, Ms. Nolting and

12 Ms. Gutierrez.

13 MS. GUTIERREZ: Thank you.

14 HEARING OFFICER ORTH: So, as I understand it
15 then, Topic 122, pneumatics is done, with the exception of
16 EDF's Tom Alexander, who we'll hear from on Friday.

17 So I'd like to go to the brief testimony of
18 Mr. Kim, CDG's witness on Section 120. That's one of the
19 three or maybe four loose ends I'm keeping note of.

20 Ms. Shpall, and can we get Mr. Kim on the screen?

21 Let's see.

22 MR. KIM: Oh, I'm already a panelist. Can you
23 guys hear me?

24 HEARING OFFICER ORTH: Yes, nice and clear.

25 Thank you.

1 And Ms. Shpall, is it you or Mr. Kim who needs
2 the slides?

3 MR. KIM: It will be myself.

4 Casey, are you coming through?

5 HEARING OFFICER ORTH: All right. I've passed
6 slide presentation to Mr. Kim.

7 We can't hear you, Ms. Shpall. I will unmute
8 you. There, you're unmuted.

9 MS. SHPALL: Oh, that helps. Can you hear me
10 now, Mr. Kim?

11 MR. KIM: Yep, I sure can. Thank you.

12 IL KIM,
13 having been previously duly sworn or affirmed, was
14 examined and testified as follows:

15 DIRECT EXAMINATION OF IL KIM

16 BY MS. SHPALL: (Pneumatics)

17 Q. Okay. Good evening, Board members. Mr. Kim's
18 testimony has been admitted. It's Appendix A to his
19 original testimony and Appendix A to his rebuttal
20 testimony.

21 And we're going to be speaking briefly about
22 Section 120. Mr. Kim, could you please summarize your
23 concerns with Section 120?

24 A. Yes, I'll do that. And if you'd give me a second
25 and let me share my screen on my slides, so let me get

1 that up. Are you guys able to see that?

2 Q. Yes.

3 A. Perfect. So, yes, I do have some concerns about
4 20.2.50.20 NMAC as proposed.

5 Q. And could you summarize those concerns for us?

6 A. Yes. The proposed rule fails to take into
7 account the operational differences between the groups
8 facilities and oil -- and the oil and gas E&P facilities.
9 E&P facilities can generally route emissions from
10 hydrocarbon liquid load-out back to the tanks or existing
11 controls on site, while water facilities must retrofit
12 these facilities to accommodate a combuster, regardless of
13 if that's on storage tanks or on hydrocarbon liquid
14 load-out.

15 The proposed rule also fails to take into account
16 the difference of the emissions profile of the oil from
17 the E&P facilities and PWMU facilities. For instance, 13
18 hydrocarbon liquid load-outs from a PWMU will result in
19 far fewer emissions when compared to 13 hydrocarbon liquid
20 load-outs at an E&P facility.

21 Q. And what threshold does NMED propose for
22 hydrocarbon liquid load-out?

23 A. NMED proposes 13 load-outs per year, which does
24 not equate to any standardized VOC emissions limits. For
25 example, 13 hydrocarbon liquid load-outs at an E&P site

1 will have substantially higher VOC emissions than 14
2 hydrocarbon liquid load-outs at PWMUs; thus, holding PWMU
3 operators at a more stringent and unnecessary standard.

4 Q. So is this threshold appropriate for hydrocarbon
5 liquid load-outs at PWMUs?

6 A. No, because the dead oil has a low BTU content
7 and a low VOC emission level. We will need to have
8 supplemental fuel delivered to the site and stored at the
9 site, and we will also need to introduce supplemental fuel
10 into the waste gas stream to increase the combustion
11 efficiency to match the regulations. This will increase
12 NOx emissions substantially, with little to no VOC
13 emissions reduction.

14 Q. And how does this proposed rule affect the
15 Commercial Disposal Group?

16 A. The process of managing produced water requires
17 us to separate out low volatility and low BTU hydrocarbon
18 liquids. Such load-out might be subject to the rule, even
19 though it is technologically infeasible to control the
20 emissions from this operation without the addition of
21 supplemental fuel.

22 Q. So are you proposing an alternate threshold?

23 A. Yes. The group proposes a threshold of 2 tons
24 per year VOC.

25 Q. And what alternate language are you proposing?

1 A. Yes, so the group is proposing an alternative
2 language to be added for off-ramps due to technological
3 infeasibility without supplemental fuel. We've
4 communicated with the state on this matter, and are
5 interested in continuing that discussion.

6 Q. And have other states that you're aware of
7 adopted alternate off-ramps?

8 A. Yes. Colorado Regulation 7 has an alternative
9 threshold of 2 tons per year uncontrolled actual emissions
10 on a rolling 12-month basis and off-ramps due to
11 technological infeasibility without the use of
12 supplemental fuel for that regulation.

13 Q. Okay. And do you have other concerns or
14 suggestions regarding this rule?

15 A. Yes. The Commercial Disposal Group proposes to
16 add a provision to Section 120, stating that where air
17 pollution control equipment is demonstrated to be
18 techno -- technically infeasible, including, but not
19 limited to inability to operate without supplemental fuel,
20 the owner or operator may apply to NMED for an exemption
21 from the control requirements of this section.

22 Q. Mr. Kim, does that complete your testimony on
23 this issue?

24 A. Yes.

25 MS. SHPALL: Mr. Kim is now available for

1 cross-examination.

2 HEARING OFFICER ORTH: All right. Thank you. If
3 you would stop sharing your screen for just a moment.

4 MR. KIM: Okay.

5 HEARING OFFICER ORTH: Thank you.

6 If any party or party representative would like
7 to ask questions of Mr. Kim, please turn on your camera.

8 I'm seeing nothing.

9 I'll turn then to questions from the Board.
10 While I'm doing that, if you're an attendee on the
11 platform and have a question, please reach out through
12 Chat.

13 EXAMINATION BY THE BOARD OF IL KIM

14 HEARING OFFICER ORTH: Madam Chair?

15 CHAIRPERSON SUINA: Yes, thank you, Madam Hearing
16 Officer. So as I understand, Mr. Kim, you've proposed
17 this language. What's been the feedback from NMED on the
18 proposed language?

19 MR. KIM: You know, so we've had discussions with
20 NMED, as well as some of the other companies that are
21 working for this regulation. And NMED has pretty much
22 told us that they would like to work with us as well as
23 the other groups, to come to an agreement on -- on
24 proposed language.

25 CHAIRPERSON SUINA: Okay. And as you testified,

1 you said there's some similar language in the Colorado
2 rule as well, that you're proposing to be part of this New
3 Mexico rule; is that correct?

4 MR. KIM: Yes, that's correct.

5 CHAIRPERSON SUINA: Okay. Thank you. That's all
6 I have for right now.

7 MR. KIM: Thank you.

8 HEARING OFFICER ORTH: Thank you. Vice-Chair
9 Trujillo-Davis?

10 VICE-CHAIR TRUJILLO-DAVIS: Thank you. So
11 Mr. Kim, if I understand your issue correctly, are most of
12 your VOCs coming -- are they dissolved VOCs in the
13 produced water?

14 MR. KIM: So when we speak about produced water,
15 our VOCs are entrained in our oil, just like any E&P
16 facility -- right? You have oil, and that oil has gas and
17 water associated with it. When we get our water, we get
18 what you would consider dead oil from -- from that water.
19 Right? We get it, we separate it out from the water, and
20 then that oil goes into an oil tank, and then out of the
21 hydrocarbon liquid load-out section or truckload-out.

22 And so the VOCs would be entrained in the oil.
23 We differ, in that, our water and oil that we do receive,
24 should have little to no flashing emissions because it has
25 already gone through all of the separation upstream of us

1 at an E&P facility, or say a midstream facility or a
2 drilling pad, and then it's either piped or trucked to our
3 facility. And so at that point, there is also less
4 emissions associated with that.

5 VICE-CHAIR TRUJILLO-DAVIS: So is that dead oils
6 that you're referring to, is that closer in consistency to
7 like bottom sludge or BS&W?

8 MR. KIM: Yeah, so I mean at our facilities, what
9 you can see is, for instance, if they have a tank
10 clean-out -- right -- it's not sandy sludgy material at
11 the bottom that isn't fresh, or per se, it's low
12 volatility. It would be consistent with that, as well as,
13 you know, from a standpoint, if we want to get technical,
14 it would be somewhere less than RVP 5 in most cases.

15 VICE-CHAIR TRUJILLO-DAVIS: Okay. That clarifies
16 for me. Thank you very much.

17 MR. KIM: Thank you.

18 HEARING OFFICER ORTH: Thank you. Member Cates?

19 BOARD MEMBER CATES: yeah, no questions here.

20 Thank you.

21 HEARING OFFICER ORTH: Thank you. Member Bitzer?

22 BOARD MEMBER BITZER: No questions. Thank you.

23 HEARING OFFICER ORTH: Thank you. Member Garcia?

24 BOARD MEMBER GARCIA: No questions. Thank you.

25 HEARING OFFICER ORTH: And that's it for the

1 Board questioning.

2 Does that raise for you any redirect, Ms. Shpall?

3 MS. SHPALL: No, it doesn't. Thank you.

4 HEARING OFFICER ORTH: All right. Well, thank
5 you very much, Ms. Shpall and thank you, Mr. Kim.

6 Ms. Katz?

7 MS. KATZ: So Madam Hearing Officer, the
8 Department would request to put on Ms. Kuehn to address
9 the testimony provided by Mr. Kim.

10 HEARING OFFICER ORTH: Yes. Ms. Kuehn, let's
11 see. There you are. Do you need slide presentations?

12 MS. BISBEY-KUEHN: (Shaking head.)

13 HEARING OFFICER ORTH: Okay. Go ahead.

14 ELIZABETH BISBEY-KUEHN,
15 having been previously duly sworn or affirmed, was
16 examined and testified as follows:

17 REBUTTAL DIRECT EXAMINATION OF ELIZABETH BISBEY-KUEHN
18 BY MS. KATZ:

19 Q. Thank you. Ms. Kuehn, what is your response to
20 the proposal presented by Mr. Kim, to include a
21 potential-to-emit threshold of 2 tons per year for
22 applicability for this section?

23 A. The Department attempted to address that with the
24 increasing or providing a threshold for the total number
25 of load-outs. Apparently that didn't fully address this

1 specific issue, so the Department is -- is willing to
2 revise the rule to include a 2-ton per year applicability
3 threshold for these type of events also.

4 Q. Thank you.

5 And to propose that for the Board's
6 consideration?

7 A. That's correct.

8 Q. And then, what is the Department's response to
9 the proposal to allow for technical infeasibility
10 demonstrations to be made, and requests for the Department
11 to review and approve those?

12 A. Correct. And we are trying to limit the number
13 of technical infeasibility waivers that will be submitted
14 to the Department because we just simply cannot handle the
15 volume of those that, you know, we feel that we would
16 receive. And so the better -- my proposal would be just
17 to continue working with the stakeholders on identifying
18 other alternatives that address that issue, outside of
19 authorizing waivers be submitted to the Department.

20 Q. And -- and is that -- I guess I would just say,
21 and is there in very extreme circumstances or, you know,
22 where there's really a problem, does the Air Quality
23 Control Act have a variance provision that allows for the
24 Board to grant a variance from the rule?

25 A. It does.

1 MS. KATZ: Okay. Thank you. That's all I have.

2 HEARING OFFICER ORTH: All right. Thank you.

3 Is there any party who would have questions of
4 Ms. Kuehn, based on that bit of testimony?

5 Ms. Shpall, would you have questions of
6 Ms. Kuehn?

7 REBUTTAL CROSS-EXAMINATION OF ELIZABETH BISBEY-KUEHN
8 BY MS. SHPALL:

9 Q. Ms. Kuehn, what type of alternatives would NMED
10 be willing to consider, other than an off-ramp for
11 technical infeasibility?

12 A. Looking at the thresholds -- applicability
13 thresholds and seeing if those can be arranged or revised.
14 We also haven't seen data indicating what the emissions
15 are, so it is difficult to comment on specific
16 applicability thresholds that would be appropriate.

17 MS. SHPALL: Okay. Thank you very much.

18 HEARING OFFICER ORTH: Any other party with a
19 question of Ms. Kuehn?

20 No? I'll check with the Board to see if they
21 have questions. While I'm doing that, if you're on the
22 platform as an attendee, please reach out through the
23 Chat.

24 EXAMINATION BY THE BOARD OF ELIZABETH BISBEY-KUEHN

25 HEARING OFFICER ORTH: Madam Chair?

1 CHAIRPERSON SUINA: Yes. Thank you, Madam
2 Hearing Officer. And thank you again, Ms. Kuehn. Just so
3 I can understand, I know it's a long day and we're on day
4 seven here, but I just wanted to understand a little bit
5 more in my mind, wrap it around. So some of the
6 provisions that have been presented by Mr. Kim, would
7 perhaps put additional burden on the Department, in terms
8 of the review for exemptions, I guess?

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

10 CHAIRPERSON SUINA: And then you had mentioned
11 talking about a waiver process. I think Ms. Katz had
12 mentioned the waiver process. Would that also have some
13 additional resource burden on the -- on the Department?

14 MS. BISBEY-KUEHN: Madam Chair Suina, that --
15 that variance request would go directly to the Board,
16 which would result in additional burdens for the Board.
17 So that is not the preference. The preference is to
18 right-size the rule and not write in waivers -- a waiver
19 process specifically. And then -- and also not to shift
20 the burden to the board.

21 CHAIRPERSON SUINA: Thank you for that. Yeah, I
22 you just wanted to flesh that out and make sure I
23 understood that path. So, appreciate it, Ms. Kuehn, for
24 the enlightenment. Thank you so much.

25 Thank you, Madam Chair, I have no further

1 questions.

2 HEARING OFFICER ORTH: Thank you. Vice-Chair
3 Trujillo-Davis?

4 VICE-CHAIR TRUJILLO-DAVIS: I don't have any more
5 questions. Member Suina asked some really good ones
6 there, so thank you.

7 HEARING OFFICER ORTH: Thank you. Member Cates?

8 BOARD MEMBER CATES: No questions. Thank you.

9 HEARING OFFICER ORTH: Thank you. Member Bitzer?

10 BOARD MEMBER BITZER: No questions. Thank you.

11 HEARING OFFICER ORTH: Member Garcia?

12 BOARD MEMBER GARCIA: No questions. Thank you.

13 HEARING OFFICER ORTH: All right. Thank you.

14 Any follow-up, Ms. Katz?

15 MS. KATZ: Nothing from me. Thank you.

16 MADAM HEARING OFFICER: All right. Well, thank
17 you, all. Ms. Shpall, Mr. Kim, Ms. Katz and Ms. Kuehn, I
18 believe we can say we're done with that aspect of that
19 topic.

20 It's 10 of 6. Let's talk briefly about tomorrow.
21 I am happy to leap into another topic if folks are
22 willing, but I think tomorrow is going to be a big day and
23 we may -- oh, Ms. Katz, unless you have a preference. We
24 do have the materials on pigging, we could -- we could
25 start that anyway.

1 MS. KATZ: Yeah, I'll -- I'll ask Mr. Hiser and
2 others to weigh in. The Department is ready to move
3 forward on any of those, but I don't know where everybody
4 else stands.

5 HEARING OFFICER ORTH: All right. Mr. Hiser?

6 MR. HISER: Madam Hearing Officer, Ms. Katz, we
7 are prepared to do either dehydrators or pigging. We have
8 our expert witness for both. Numerically, I guess
9 dehydrators comes first.

10 HEARING OFFICER ORTH: Ms. Gutierrez.

11 MS. GUTIERREZ: Thank you, Madam Hearing Officer.
12 I was just going to add that Kinder Morgan is prepared to
13 present on pigging today as well.

14 HEARING OFFICER ORTH: All right. Let me just
15 ask, would the dehydrators be faster than the pigging?

16 MR. HISER: We don't -- there's not very much on
17 the dehydrator provision, it will probably be quite fast.

18 MS. KATZ: Yes.

19 HEARING OFFICER ORTH: I think that would be my
20 preference then.

21 Mr. Butzier, do you want to weigh in?

22 MR. BUTZIER: Madam Hearing Officer, I may have
23 missed some communications on this, but I had understood
24 we were going to try to get to Ms. Devore for the MPS
25 relating to engines today or in the morning.

1 HEARING OFFICER ORTH: Okay. So I had very much
2 wanted to call on Ms. Devore at the end of pneumatics. I
3 had -- in fact, my original plan was to call on Ms. Devore
4 before I called on Mr. Kim.

5 Ms. Devore, though, had to exit at 2 p.m. Her
6 workplace conflicts prevented her from being here this
7 late, so we will take her tomorrow.

8 My plan for tomorrow actually so that we weren't
9 sort of fitting her into the middle of LDAR, was to do the
10 motion to discussion at 8:30. I don't know that we need
11 more than that, frankly; public comment at 9, invite
12 Ms. Devore to offer what she wants to offer for NTS and
13 then to go to LDAR.

14 I had hoped to also include Ms. Witherspoon
15 somewhere in this conversation, but I haven't seen her on
16 the platform today.

17 MR. BUTZIER: Thank you. And I apologize that I
18 had missed some of that communication.

19 MADAM HEARING OFFICER: All right. Thank you.

20 Let's see here. Sounds like the glycol
21 dehydrators are the quickest thing to do, sort of eke out
22 just a little bit more tonight.

23 Member Bitzer has a question: "Are we catching
24 up timeline-wise? If not, I have a possible suggestion."
25 Member Bitzer, go ahead.

1 BOARD MEMBER BITZER: I know we're all pushing
2 the limits of human endurance here, but we seem to -- if
3 I'm not mistaken, the rule only requires for us to
4 continue on, that we have a quorum, which I guess would be
5 four of us at any given time. I'm wondering if we might
6 start earlier with a shift, and then have a lot of overlap
7 during the day, and then go later with a shift. I know
8 that would mean we would need a second Hearing Officer
9 because your limits of human endurance would probably be
10 exceeded, but... And I'm just throwing that out there in
11 case we're not on track yet to make it in the two weeks we
12 have allotted, because I think it's important that we
13 conclude this business with everyone having had their say
14 and their shot at the full record by Friday, close of
15 business. So I don't know if a rolling quorum is what
16 that would be called or not, or if --

17 HEARING OFFICER ORTH: Member Bitzer? Member
18 Bitzer, I'm sorry, let me interrupt you. One of the
19 charms of appointing a Hearing Officer is that no quorum
20 is necessary for any part of the hearing. You will need a
21 quorum for your deliberations, but no quorum is necessary
22 for the hearing.

23 My second observation would be that this
24 particular Board has exhibited just a fantastic amount of
25 engagement; certainly one of the highest levels of

1 engagement I've had in a board or commission rulemaking.
2 Six of you have been on for the 99.9 percent of the time.
3 It's been terrific, really, to have you this engaged, but,
4 absolutely, you're volunteers. I think everyone
5 appreciates the fact that you will have conflicts
6 occasionally. And what you might do -- this is what other
7 boards and commissions I've served have done, is to have
8 some general understanding of when we might get to a
9 particular witness or a particular topic and just try to
10 make sure you're there for that part.

11 And if there are other parts maybe you don't
12 necessarily need to engage in questioning on, live that
13 other part of your life for those -- for those hours. So,
14 other questions about -- about that?

15 No? Okay.

16 So can we tackle glycol dehydrators tonight?
17 Okay. Ms. Katz?

18 MS. KATZ: Thank you, Madam Hearing Officer. So
19 I'm going to call Ms. Kuehn and Mr. Palmer again. This
20 section is -- if I can find it -- 20.2.50.118. The
21 exhibits are NMED Exhibit 32, beginning on page 98 and
22 NMED Rebuttal Exhibit 1, beginning on page 71.

23 ELIZABETH BISBEY-KUEHN AND BRIAN PALMER,
24 (Glycol Dehydrators)

25 having been previously duly sworn or affirmed, was

1 examined and testified as follows:

2 DIRECT EXAMINATION OF ELIZABETH BISBEY-KUEHN

3 BY MS. KATZ:

4 MS. KATZ: Ms. Kuehn is starting the share. And
5 Ms. Kuehn and Mr. Palmer have adopted their testimony and
6 I don't believe there are any corrections that need to be
7 made to this section.

8 So Ms. Kuehn, can you please begin with the
9 summary and overview of the equipment that is the subject
10 of this section of the rule?

11 MS. BISBEY-KUEHN: Yes. Good evening, everyone.
12 The subject of this section of the rule, Section 118, is
13 glycol dehydrators. They're used throughout the industry
14 to remove water from natural gas and natural gas liquids.
15 The failure -- the failure to remove water results in the
16 formation of hydrates, which then block pipelines, valves
17 and pipeline equipment and instrumentation.

18 Glycol used as an absorbent, it absorbs the water
19 and VOCs from natural gas, and then the glycol is then
20 regenerated by heating to release the absorbed compounds.
21 Through a boiler of the -- of a large glycol dehydrator
22 can discharge more than 100 tons per year of VOCs,
23 including benzene, toluene ethylbenzene and xylene.

24 MS. KATZ: Can you continue to discuss the
25 control options for controlling emissions from

1 dehydrators?

2 MS. BISBEY-KUEHN: Yes. There's a still vent and
3 often a flash tank. Those emissions can be routed to
4 the -- either the reboiler firebox to be used as a fuel, a
5 condenser, a combustion control device, to a process point
6 that recycles or recompresses the emissions or uses again
7 the emissions as a fuel, or to a vapor recovery unit that
8 reinjects the VOC back into the process stream or to a
9 natural gas pipeline.

10 MS. KATZ: And can you describe what the emission
11 standards in the rule are for dehydrators?

12 MS. BISBEY-KUEHN: Yes. The rule, as proposed,
13 requires existing dehydrators with a potential-to-emit
14 greater than 2 tons per year of VOC to reduce their VOC
15 emissions from the still vent and flash tank, if present,
16 by at least 95 percent no later than two years after the
17 effective date of this part.

18 New glycol dehydrators with the potential-to-emit
19 greater than 2 tons per year of VOC are required to reduce
20 VOC emissions from the still vent and flash tank, if
21 present, at least 95 percent upon startup. And both for
22 new and existing dehydrators, if they're using a
23 combustion device, that combustion device must meet a
24 minimum of 98 percent destruction efficiency.

25 MS. KATZ: I'll let you just go ahead and

1 summarize the -- these provisions.

2 MS. BISBEY-KUEHN: Okay. So I have -- I have the
3 reactions broken up here, but I also have the slides of
4 the actual rule. So I might just skip these slides and go
5 directly to the next slide for Mr. Palmer.

6 MS. KATZ: Okay. Sounds good.

7 Mr. Palmer, can you please describe the basis for
8 the requirements for dehydrators in the rule and the
9 estimated emissions reductions and costs for implementing
10 those requirements?

11 MR. PALMER: Sure. So on the first slide, the
12 proposed glycol dehydrator requirements are based on
13 requirements in Colorado, Pennsylvania, and also similar
14 to those adopted by the U.S. EPA. The applicability
15 threshold of 2 tons per year of VOC is based on Colorado's
16 rule 7, which is the -- it's the same applicability
17 threshold they have for individual dehydrators and it's
18 comparable to a threshold in Pennsylvania's GP 5 and GP
19 5A, which is 2.7 tons per year of VOC.

20 The capture and control efficiency requirements
21 of 95 percent from an uncontrolled dehydrator still vent
22 and flash tank are based on the same requirements in the
23 federal NESHAP, the National Emission Standards for
24 Hazardous Air Pollutants, for glycol dehydrators, and
25 that's in 40 CFR Part 63 Subpart HH, and which requires

1 controls for VOCs.

2 So we estimated the overall emission reductions
3 from glycol dehydrators of 1,865 tons per year based on
4 allowable VOCs. As a result of the rule, the estimated
5 cost effectiveness of the reductions is 234 tons -- excuse
6 me -- \$2,034 per ton of VOC, based on the use of a
7 condenser to control emissions. And the cost
8 effectiveness is based on total annualized cost of \$21,560
9 per year for a condenser, and that's calculated with the
10 same methodology we used in the EPA's 2007 amendments to
11 the NESHAP for glycol dehydrators. And then, of course,
12 we scaled those up to the 2019 dollars.

13 MS. KATZ: Thank you, Mr. Palmer.

14 And Ms. Kuehn, can you walk through and summarize
15 the provisions of the rule and the revisions that were
16 made based on the stakeholders comments?

17 MS. BISBEY-KUEHN: Yes. So as we've discussed
18 for other sections, we have a similar framework here for
19 glycol dehydrators with the paragraph A speaking to
20 applicability, establishing that glycol dehydrators with a
21 potential-to-emit equal to or greater than 2 tons per year
22 of VOCs, and located at those sites are subject to the
23 requirements.

24 The emissions standards are outlined in paragraph
25 B. I've already gone through those so I won't restate

1 those. We received minimal comments on -- on this
2 section. We've inserted the tank, if present, after flash
3 tank. Not all glycol dehydrators have the flash tank on
4 that unit. And then we agreed with the insertion of other
5 minor editorial clarifying edits.

6 NMOGA did request that we exempt glycol
7 dehydrators that have an actual natural gas throughput of
8 3 million standard cubic feet per day or less. That
9 request was not accepted by the Department. That
10 threshold is present in the federal National Emission
11 Standards for Hazardous Air Pollutants and is appropriate
12 within that regulatory content. However, even small
13 dehydrators can have significant amounts of VOC emissions,
14 and that actual throughput is not appropriate for this
15 rule. And instead, we have an actual emission throughput,
16 which is a better -- a better type of threshold for this
17 part.

18 There are requirements that are specific to
19 operators that use a VRU to comply with the emission
20 standards of this part. Those are spelled out in
21 paragraph 3 B. It states that the VRU shall consist of
22 closed-loop systems of seals, ducts in the compressor that
23 reinject those vapors into the pipeline, and also
24 establishes a minimum operational requirement of 95
25 percent of the time that the facility is in operation.

1 And requires that the VRU be installed, maintained and
2 operated in accordance with manufacturer specifications.

3 Paragraph 3 B is prohibition against venting
4 directly to the atmosphere during normal operation.

5 Paragraph D, again, the requirement to install an
6 equipment monitoring tag was struck. There is an off-ramp
7 from the requirements of this part in paragraph B (5) that
8 states that the requirements of the subparts cease to
9 apply when the actual and controlled VOC emissions from a
10 new or existing dehydrator are less than 2/10's per year.

11 We struck the term "uncontrolled." We agreed
12 with the commenters that the use of actual annual VOC
13 emissions as an off-ramp is appropriate for this specific
14 section. Paragraph C outlines the monitoring
15 requirements. These are the standard monitoring
16 requirements of a dehydrator, and those are to conduct an
17 annual extended gas analysis on the dehydrator and the
18 gas, and calculate the uncontrolled and controlled VOC
19 emissions in tons per year. It's -- an annual extended
20 gas analysis for the specific facility is a critical input
21 into these emissions, and so that is an essential and
22 fundamental component of this monitoring strategy.

23 Paragraph C2 requires that the operator inspect
24 the dehydrator and control device, or process where
25 emissions are being routed on a semi-annual basis, to

1 ensure that the unit is operating properly as initially
2 designed and in accordance with manufacturer's recommended
3 operation and maintenance schedule. We've also included
4 the requirement to date and time-stamp the monitoring
5 event.

6 Paragraph C4 references a requirement that owners
7 and operators that are using a control device to comply
8 with the emissions standard must comply with the
9 specification requirements for that control device in
10 Section 115, which we went through yesterday, which is the
11 section that covers control devices and closed-loop
12 systems. And we made minor edits to the paragraph 5.

13 Paragraph D are, again, the recordkeeping
14 requirements. This is -- these are the records to ensure
15 that the standards are enforceable. We made minor -- very
16 minor edits throughout this page. I won't go through each
17 of them in detail. You can see that there's a number of
18 records that are required to be made of this specific
19 equipment and the location. There's also process
20 parameters that are required to be recorded, and those are
21 the data used to estimate the emissions of the -- of the
22 unit.

23 And there were no comments on the reporting
24 requirements, and so that concludes this -- this
25 presentation on glycol dehydrators.

1 MS. KATZ: Thank you. That's it from the
2 Department.

3 HEARING OFFICER ORTH: All right. Thank you. I
4 understand now we'll hear from Mr. Hiser's witness,
5 Ms. Textor, before we have questioning, unless there is a
6 cross-examination by a party.

7 Cross-examination by a party? Mr. Hiser?

8 CROSS-EXAMINATION OF ELIZABETH BISBEY-KUEHN
9 BY MR. HISER:

10 Q. I guess I only have one question for Ms. Kuehn.
11 And that was that when she was talking about the initial
12 applicability, I was wondering if she misspoke when she
13 said that was based on actual emissions rather than
14 potential?

15 A. The applicability is based on potential.

16 Q. Thank you.

17 MR. HISER: We're ready to move on if there are
18 no questions from any other party.

19 HEARING OFFICER ORTH: I see no one else on
20 screen.

21 MR. HISER: Is Ms. Textor, Marise Textor on the
22 panel? She will have slides, too, Madam Hearing Officer,
23 after you have sworn her.

24 HEARING OFFICER ORTH: All right. Ms. Textor, if
25 you would spell your name for the record, please.

1 MS. TEXTOR: Can you hear me?

2 HEARING OFFICER ORTH: Yes.

3 MS. TEXTOR: First name is Marise, M-A-R-I-S-E.
4 Last name is Textor, T-E-X-T-O-R.

5 HEARING OFFICER ORTH: Thank you. If you would
6 raise your right hand. Do you swear or affirm to tell the
7 truth?

8 MS. TEXTOR: Yes.

9 HEARING OFFICER ORTH: Thank you. Go ahead,
10 Mr. Hiser.

11 MARISE TEXTOR,
12 having been duly sworn or affirmed, was examined
13 and testified as follows:

14 DIRECT EXAMINATION OF MARISE TEXTOR

15 BY MR. HISER:

16 Q. Good evening, Ms. Textor. Could you please tell
17 us what your involvement is in this proceeding?

18 A. Yes. I was asked by NMOGA to address NMOGA's
19 testimony on both the pigging and the glycol dehydrators.

20 Q. And -- I just froze. I don't have the Exhibit
21 No. for your resume with me right now.

22 A. Fifty-two.

23 Q. Oh, do you have it?

24 A. I don't have it in front of me, but it's Exhibit
25 No. 52.

1 Q. Thank you. I didn't write that one down. So is
2 NMOGA Exhibit 52 an accurate copy of your resume?

3 A. Yes, it is.

4 Q. Could you please state your qualifications as it
5 relates to your participation in this hearing?

6 A. Yes. I have Bachelor and Master's degrees in
7 chemical engineering, registered professional engineer for
8 chemical engineering in both California and Texas. And I
9 have more than 40 years of experience in the oil and
10 chemical industries; process design in operations first,
11 and then environmental health and safety leadership, and
12 then engaged stakeholder engagement from the industry
13 perspective, and leadership in regulatory development.
14 And then for the last year, I've been an independent
15 consultant.

16 Q. Thank you. Does NMOGA Exhibit 46 reflect your
17 rebuttal technical testimony filed in this matter?

18 A. Yes, it does. Sorry.

19 Q. And do you have any changes to that prefilled
20 testimony?

21 A. No.

22 Q. Do you adopt that testimony as your testimony in
23 this matter?

24 A. Yes.

25 Q. Thank you.

1 Did you prepare a summary of your testimony to
2 share with the Board tonight?

3 A. Yes.

4 Q. I believe the Hearing Officer has authorized you
5 as a presenter.

6 A. Okay. Okay. Can you see that?

7 Q. Yes. It's a bit off center, but we can see it.

8 A. Let's see. I can make that bigger.

9 Q. Perfect.

10 A. And move you out of the way. Okay.

11 Did you want me to walk through this?

12 Q. Yes, please.

13 A. Okay. I'm sorry. Go ahead.

14 Q. Start with a brief discussion of those areas
15 where NMOGA just had some discussions with the Department,
16 and where we've briefly reached agreement, and then move
17 on to where there is still a remaining disagreement.

18 A. Okay. So there were three areas that NMED had
19 made changes to the rule that we were in agreement with.
20 All of those were covered by Ms. Bisbey-Kuehn a few
21 moments ago: the issue of whether or not the flash tank
22 was present, changing natural gas to vapor, in the wording
23 for the flash tank overhead, because that is typically far
24 less methane than natural gas would be and emissions not
25 vented directly to atmosphere during normal operation, in

1 part at least, because once it goes through a control
2 device, it still gets vented to the atmosphere downstream
3 of the control device, so adding "directly" addresses
4 that.

5 Q. Thank you.

6 A. Okay.

7 Q. What are the remaining issue?

8 A. Yeah, there's three areas that we're still in
9 disagreement with the proposed rule from NMED. The first
10 one is on the issue of exempting units that are greater --
11 I'm sorry -- less than 3 million standard cubic feet per
12 day. And we understand that these units -- we understand
13 NMED's perspective that these units could still have
14 significant emissions, but, nonetheless, they have been --
15 this -- this exemption would be consistent with the
16 exemption that EPA put in the mass rule Support HH
17 covering glycol dehydrators.

18 There's a -- on these very small units, there
19 would be less cost effectiveness and less environmental
20 benefit for controlling them. And if it was routed to a
21 control device -- a combustion control device, NOx
22 emissions would increase, which is directionally
23 inconsistent with the NOx sensitive environment in New
24 Mexico.

25 Aligning the volume throughput threshold with the

1 throughput threshold in that HH would also make it easier
2 to comply. We disagree that there are significant
3 emissions in total from these units. Working with the
4 spreadsheet that NMED provided on the ozone precursor
5 rulemaking website, and the units that are listed in that
6 threshold -- in that spreadsheet, the total amount of
7 emissions from these units that are less than 3 million
8 standard cubic feet per day, and currently uncontrolled,
9 represents less than 1 percent of the current controlled,
10 plus uncontrolled VOC output.

11 And so, that less than 1 percent is not a
12 significant amount of emissions. And, therefore, we still
13 request that this exemption for units that are less than 3
14 million standard cubic feet per day be added to the rule.

15 Q. Thank you. Can you move on to our next request
16 that NMOGA has?

17 A. Yes. So the next one is an inconsistency in the
18 requirements for VRUs that are in Section 118 for glycol
19 dehydrators, and the 115, which is referred to in 118, as
20 it applies to glycol dehydrators.

21 And what we ask is that the phrase, "which shall
22 supersede any inconsistent requirements of Section 115" be
23 inserted in there. So, currently, the Section 115
24 requires a redundant VRU, and Section 118 allows up to a 5
25 percent downtime allowance, and so that's the

1 inconsistency between those two things.

2 The redundant VRU would have a very high cost and
3 it disincentifies using a VRU, but to add this wording
4 that we're seeking would remove the disincentive. And,
5 really, VRU should be a preferred control mechanism from
6 an environmental standpoint because they don't emit ozone
7 forming NOx.

8 We also believe that NMED did not intend to
9 require a redundant VRU for glycol dehydrators, because if
10 they had intended that, they would not have allowed the 5
11 percent downtime allowance.

12 Q. Okay. Thank you. Is there one more issue that's
13 being recommended?

14 A. Yes, one more. And then in the monitoring
15 requirements, there's a requirement to sample the gas.
16 And we request that a representative gas analysis may be
17 utilized and this calculation be inserted in there. It's
18 a costly requirement to sample each location, and it's not
19 transparent to us whether or not this cost was included in
20 the NMED cost analysis.

21 But an engineering judgment of what a
22 representative gas analysis is, would not introduce an
23 appreciable uncertainty into the emissions calculations,
24 but it would improve the cost effectiveness without
25 impacting actual emissions or changing compliance

1 decisions.

2 We understand NMED's rebuttal testimony, that the
3 written rebuttal that explains that the estimated
4 emissions should be based on the most accurate information
5 available, and that calculations based on the composition
6 of the actual gas being processed are by definition more
7 accurate, but when you consider the other variations that
8 are in the calculation; it could be variations in flow
9 rate, variations of gas composition, that there's -- using
10 a representative sample would not introduce an appreciable
11 additional variation into the calculation.

12 Q. Okay. And do you have a sense, Ms. Textor, of
13 what that representative gas analysis might cost?

14 A. I do not have that information. I'm sorry.

15 Q. That's okay. I do not believe -- do we have -- I
16 believe that's all we have on this section; is that
17 correct, Ms. Textor?

18 A. Yes, I think that's correct.

19 MR. HISER: All right. I do not have any
20 additional questions. So, Madam Hearing Officer, we would
21 make her available whenever you have the panel questions.

22 HEARING OFFICER ORTH: All right. Thank you.
23 Let me see if there are any other parties.

24 MR. HISER: If you could release the screen.

25 MS. TEXTOR: Yeah. How do I stop sharing?

1 HEARING OFFICER ORTH: Let me look here.

2 MS. TEXTOR: Here we go. I found it. I'm sorry.

3 HEARING OFFICER ORTH: Thank you. Any party
4 questions of Ms. Textor?

5 So as I understand it, Ms. Kuehn, Ms. Textor and
6 Mr. Palmer will be questioned together by the Board, or
7 maybe it was just Ms. Kuehn. I'm sorry.

8 All right. Board members, I will turn to you for
9 your questions. While I'm doing that, if you're on this
10 platform and have questions, reach out through the Chat.

11 Madam Chair?

12 CHAIRPERSON SUINA: Madam Hearing Officer, I
13 don't have any questions at this time.

14 HEARING OFFICER ORTH: Thank you. Vice-Chair
15 Trujillo-Davis?

16 VICE-CHAIR TRUJILLO-DAVIS: Yes. Thank you.
17 Ms. Kuehn, is that -- are we reading that correctly? Did
18 the --

19 MS. KATZ: I'm sorry. Can I just ask -- sorry.
20 I'm so sorry. Are we in the panel questioning right now?

21 Okay. And I think that maybe NMED still needs to
22 do their surrebuttal before we go into the Board
23 questioning.

24 HEARING OFFICER ORTH: Okay.

25 MS. KATZ: I think that might help with questions

1 from the Board.

2 HEARING OFFICER ORTH: Okay. I'm sorry.

3 MS. KATZ: I'm sorry.

4 HEARING OFFICER ORTH: I thought that's where we
5 were.

6 MS. KATZ: Yes.

7 HEARING OFFICER ORTH: I should have taken a
8 longer pause. I'm sorry, Vice-Chair, for tricking you
9 into asking a question.

10 VICE-CHAIR TRUJILLO-DAVIS: That's okay.

11 MS. KATZ: I just thought some of the follow-up
12 might help with questions.

13 HEARING OFFICER ORTH: Okay. Go ahead, Ms. Katz.

14 ELIZABETH BISBEY-KUEHN,
15 having been previously duly sworn or affirmed, was
16 examined and testified as follows:

17 SURREBUTTAL EXAMINATION OF ELIZABETH BISBEY-KUEHN

18 BY MS. KATZ:

19 Q. So I was going to have Ms. Kuehn for -- up for
20 redirect really quickly. So Ms. Kuehn, regarding the --
21 the request for the -- for the throughput threshold, can
22 you -- can you discuss the Department's response to that?

23 A. Yes, ma'am. And we feel that the 2 ton per year
24 threshold into the rule should handle -- should cover
25 those small dehydrators with small amounts of emissions

1 and small throughput.

2 The 3 million standard cubic feet per day
3 threshold is not appropriate because it is not linked to
4 any emission threshold, and you can have, as I stated,
5 very large VOC emissions from even these small throughput
6 dehydrators. And so the threshold -- the critical
7 threshold is the 2 ton per year applicability threshold.

8 Q. Okay. Thank you. And then, what is the
9 Department's response to NMOGA's proposed language
10 regarding the redundant VRU issue?

11 A. Yeah, if I may just make one additional comment
12 on the previous question. So the National Emissions
13 Standard for Hazardous Air Pollutants is targeting
14 hazardous air pollutants specifically, and it's
15 specifically targeting benzene emissions. There are
16 numerous other VOCs that are emitted by glycol dehydrators
17 that are not covered by that NESHAP. And so -- and this
18 rule is targeting VOC and NOx emissions. And so it's not
19 really translatable. The scope of the NESHAP rule is
20 different than the scope of this -- this part.

21 And I'm sorry, could you repeat your second
22 question?

23 Q. Yeah. Thank you. Sorry about that.

24 What is the Department's response regarding
25 the -- NMOGA's proposed language to address the redundant

1 VRU issue?

2 A. And I -- I thought we had addressed that issue
3 satisfactorily for NMOGA, and the Department would not be
4 opposed to agreeing to that language -- that proposed
5 language and providing that to the Board for their
6 consideration.

7 Q. Okay. Thank you.

8 And can you explain why NMED feels that the
9 extended gas analysis is important?

10 A. That's a standard requirement for -- in air
11 regulatory agencies. It's a standard requirement in all
12 of our facilities that require permits. Dehydrators are
13 typically located at larger-sized facilities that have air
14 permits, and so that -- that requirement likely exists for
15 every facility that already has a permit.

16 In addition, it's critical that we have the
17 composition of the gas nailed down in order to estimate
18 the VOC emissions from these dehydrators.

19 Q. Okay. Thank you. That's all I have.

20 MS. KATZ: Now we could go to the Board. I
21 apologize for that.

22 HEARING OFFICER ORTH: All right. Thank you,
23 Ms. Katz. Can we get Ms. Textor back on the -- on the
24 screen? There you are. Thank you.

25 Madam Chair, does that raise for you any

1 questions at this point?

2 CHAIRPERSON SUINA: At this point I just
3 appreciate the further explanation that NMED provided to
4 the Board. Thank you.

5 HEARING OFFICER ORTH: Thank you. Vice-Chair
6 Trujillo-Davis?

7 VICE-CHAIR TRUJILLO-DAVIS: I -- I don't have any
8 more questions. My question was about redundant RVUs and
9 Ms. Kuehn addressed them, so thank you very much.

10 HEARING OFFICER ORTH: Thank you. Member Cates?

11 BOARD MEMBER CATES: Again no questions here.
12 Thank you.

13 HEARING OFFICER ORTH: Thank you. Member Garcia?

14 BOARD MEMBER GARCIA: No questions. Thank you.

15 HEARING OFFICER ORTH: Thank you.

16 Well, thank you Ms. Kuehn and Ms. Textor for your
17 testimony. I believe we actually managed to finish
18 another topic. Topic 118, I believe, is done completely.

19 So, again, tomorrow, counsel should be on the
20 platform at 8:30. We'll talk about all of these motions.
21 Board members, it's not a secret event, so if you're on
22 the platform, that's fine. I will ask you not to turn on
23 your camera. I need to be able to see the lawyers.

24 We'll start with public comment at 9 and then go
25 to Ms. Devore. And Ms. Katz, I just wanted to say the

1 Department may or may not want to do its rebuttal or
2 surrebuttal after NPS's presentation because we'll have to
3 get to LDAR. I'll leave that to you. And we'll get to
4 LDAR.

5 Mr. Hiser, I see you on the screen.

6 MR. HISER: Two items, Madam Hearing Officer.
7 One, I might remind you that we had surrebuttal from NMOGA
8 on the National Park Service presentation as well, so
9 don't forget us. And then, two, we will be filing a
10 response to the motion by the parties to exclude some of
11 our testimony so you should look for that this evening.

12 HEARING OFFICER ORTH: Thank you very much. I
13 know that's a short turnaround for you. Thank you.

14 All right. I think we're done. Thank you, all,
15 for hanging in there.

16 Oh, Theresa?

17 COURT REPORTER: Do you need a reporter at 8:30
18 in the morning?

19 HEARING OFFICER ORTH: I don't know that we need
20 a reporter. Does any of the counsel feel strongly that we
21 need a transcript on a motion hearing? I can record it.

22 MR. HISER: I think we need to have some sort of
23 a recording, Madam Hearing Officer, given the nature of
24 the motion and its impact on our case.

25 HEARING OFFICER ORTH: All right. I'll reach out

1 to Cheryl then tonight. Okay. All right. I'll reach out
2 to Cheryl Arreguin tonight. She rejoins us tomorrow
3 morning. All right. Anything further?

4 No? Thank you so much. Have a good evening.
5 See you in the morning.

6 (Proceedings concluded September 28, 2021, at
7 6:29 p.m.)

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STATE OF NEW MEXICO
BEFORE THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT BOARD
PROPOSED ADOPTION OF RULE 21-27 NMAC
RULES HEARING

REPORTER'S CERTIFICATE

I, THERESA E. DUBOIS, RPR, CSR #29, DO HEREBY
CERTIFY that on September 28th, 2021, the Public Hearing
of the New Mexico Environmental Improvement Board was
taken before me, that I did report in stenographic
shorthand the Proceedings set forth herein, and the
foregoing pages are a true and correct transcription to
the best of my ability.

I FURTHER CERTIFY that I am neither employed by
nor related to nor contracted with (unless excepted by the
rules) any of the parties or attorneys in this matter, and
that I have no interest whatsoever in the final
disposition of this matter.



THERESA E. DUBOIS, RPR
New Mexico CCR #29
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