

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 29th day of
September, 2021, this matter came on for hearing before
FELICIA ORTH, Hearing Officer, virtually through Cisco
Webex Meetings video conferencing, at the hour of 8:30
a.m.

Volume 8

REPORTED BY: CHERYL ARREGUIN, RPR
New Mexico CCR No. 21
Albuquerque Court Reporting Service, LLC
3150 Carlisle Boulevard, Northeast
Suite 104
Albuquerque, New Mexico 87110
(505) 806-1202
abqcrs@gmail.com

1 A P P E A R A N C E S

2 The Hearing Officer:

3 FELICIA L. ORTH
4 felicia.l.orth@gmail.com

5 The Environmental Improvement Board:

6 PHOEBE SUINA, Chair
7 AMANDA TRUJILLO DAVIS, Vice Chair
8 KAREN GARCIA
9 J. BARRY BITZER
10 KARL CATES
11 BENJAMIN DUVAL
12 WILLIAM HONKER

13 PAMELA JONES, Administrator

14 KARLA J. SOLORIA
15 Assistant Attorney General
16 Office of the Attorney General
17 Post Office Drawer 1508
18 Santa Fe, New Mexico 87504-1508
19 (505) 490-4054
20 ksoloria@nmag.gov

21 For the New Mexico Environment Department:

22 LARA KATZ
23 Assistant General Counsel
24 Office of General Counsel
25 New Mexico Environment Department
26 1190 St. Francis Drive
27 Santa Fe, New Mexico 87505
28 lara.katz@state.nm.us
29 (505) 827-2985

30 ANDREW P. KNIGHT
31 Assistant General Counsel
32 Office of General Counsel
33 New Mexico Environment Department
34 121 Tijeras Avenue, Northeast
35 Suite 1000
36 Albuquerque, New Mexico 87102
37 (505) 470-8215
38 andrew.knight@state.nm.us

1 A P P E A R A N C E S (Continued)

2 For the New Mexico Oil and Gas Association:

3 ERIC L. HISER
4 BRANDON CURTIS
5 Jordan Hiser & Joy, PLC
6 5080 N. 40th Street
7 Suite 245
8 Phoenix, Arizona 85024
9 (480) 505-3900
10 ehiser@jhjlawyers.com
11 bcurtis@jhjlawyers.com

12 DALVA L. MOELLENBERG
13 Gallagher & Kennedy, PA
14 1239 Paseo de Peralta
15 Santa Fe, New Mexico 87501
16 (505) 982-9523
17 dlm@gknet.com

18 For Conservation Voters New Mexico, Dine C.A.R.E.,
19 Earthworks, Natural Resources Defense Council, San Juan
20 Citizens Alliance, Sierra Club, and 350 New Mexico
21 ("Clean Air Advocates"):

22 TANNIS FOX
23 Attorney at Law
24 Western Environmental Law Center
25 409 East Palace Avenue
26 #2
27 Santa Fe, New Mexico 87501
28 (505) 629-0732
29 fox@westernlaw.org

30 DAVID R. BAAKE
31 Baake Law LLC
32 2131 North Main Street
33 Las Cruces, New Mexico 88001
34 (575) 343-2782
35 david@baakelaw.com

1 A P P E A R A N C E S (Continued)

2 For Environmental Defense Fund:

3 ELIZABETH DELONE PARANHOS
4 Delone Law Inc.
5 1555 Jennine Place
6 Boulder, Colorado 80304
7 (303) 442-0610
8 elizabeth@delonelaw.com

9 For Center for Civic Policy and NAVA Education Project:

10 DANIEL JAYNES
11 Clinical Law Student
12 KEIFER JOHNSON
13 Clinical Law Student
14 TRAVIS SHIMANEK
15 Clinical Law Student
16 GABRIEL PACYNIAK
17 Supervising Attorney
18 Natural Resources & Environmental Law Clinic
19 University of New Mexico
20 1117 Stanford Drive, Northeast
21 Albuquerque, New Mexico 87106
22 (505) 277-2146
23 jaynesda@law.unm.edu
24 johnsoke@law.unm.edu
25 shimantr@law.unm.edu
 pacyniak@law.unm.edu

For National Park Service:

 LISA DEVORE
 Air Quality Specialist
 Intermountain Region
 NPS-Air
 Post Office Box 25287
 Denver, Colorado 80225-0287
 (720) 660-0108
 lisa_devore@nps.gov

1 A P P E A R A N C E S (Continued)

2 For National Park Service (Continued)

3 JOHN VIMONT
4 Acting Chief
5 Air Resources Division
6 NPS-Air
7 Post Office Box 25287
8 Denver, Colorado 80225-0287
9 (303) 969-2808
10 john_vimont@nps.gov

11 For WildEarth Guardians:

12 MATTHEW A. NYKIEL
13 3798 Marshall Street
14 Suite 8
15 Wheat Ridge, Colorado 80033
16 (303) 501-5763
17 mnykiel@wildearthguardians.org

18 DANIEL L. TIMMONS
19 WildEarth Guardians
20 301 N. Guadalupe Street
21 Suite 201
22 Santa Fe, New Mexico 87501
23 (505) 988-9126
24 dtimmons@wildearthguardians.org

25 For New Mexico Environmental Law Center:

26 CHARLES DE SAILLAN
27 Staff Attorney
28 New Mexico Environmental Law Center
29 1405 Luisa Street
30 Suite 5
31 Santa Fe, New Mexico 87505
32 (505) 819-9058
33 cdesaillan@nmelc.org

1 A P P E A R A N C E S (Continued)

2 For Independent Petroleum Association of New Mexico:

3 LOUIS W. ROSE
4 KARI OLSON
5 RICARDO S. GONZALES
6 Montgomery & Andrews, PA
7 325 Paseo de Peralta
8 Post Office Box 2307
9 Santa Fe, New Mexico 87504-2307
10 (505) 982-3873
11 lrose@montand.com
12 kolson@montand.com
13 rgonzales@montand.com

14 For Oxy USA Inc.:

15 J. SCOTT JANOE
16 Baker Botts LLP
17 910 Louisiana Street
18 Houston, Texas 77002
19 (713) 229-1421
20 scott.janoe@bakerbotts.com

21 For Gas Compressor Association:

22 JEFFREY HOLMSTEAD
23 TIM WILKINS
24 WHIT SWIFT
25 Bracewell LLP
26 111 Congress Avenue
27 Suite 2300
28 Austin, Texas 78701
29 (512) 472-7800
30 jeff.holmstead@bracewell.com
31 tim.wilkins@bracewell.com
32 whit.swift@bracewell.com

33 STUART R. BUTZIER
34 CHRISTINA C. SHEEHAN
35 Modrall Sperling Roehl Harris & Sisk, PA
36 1239 Paseo de Peralta
37 Post Office Box 2168
38 Santa Fe, New Mexico 87103-2168
39 (505) 848-1800
40 srb@modrall.com
41 ccs@modrall.com

1 A P P E A R A N C E S (Continued)

2 For Kinder Morgan, Inc., and its subsidiaries and
3 affiliates, El Paso Natural Gas Company, LLC,
4 TransColorado Gas Transmission Co, LLC, and Natural Gas
5 Pipeline Company of America, LLC:

6 ANA MARIA GUTIERREZ
7 Hogan Lovells US LLP
8 1601 Wewatta Street
9 Suite 900
10 Denver, Colorado 80202
11 (303) 454-2514
12 ana.gutierrez@hoganlovells.com

13 For NGL Energy Partners LP, Solaris Water Midstream,
14 LLC, OWL SWD Operating, LLC, and Goodnight Midstream,
15 LLC ("Commercial Disposal Group"):

16 CHRISTOPHER J. NEUMANN
17 GREGORY R. TAN
18 CASEY SHPALL
19 Greenberg Traurig, LLP
20 1144 Fifteenth Street
21 Suite 3300
22 Denver, Colorado 80202
23 (303) 572-6500
24 neumannc@gtlaw.com
25 tangr@gtlaw.com
 shpallc@gtlaw.com

 MATTHIAS L. SAYER
 NGL Energy Partners LP
 125 Lincoln Avenue
 Suite 222
 Santa Fe, New Mexico 87501
 (505) 216-1430
 matthias.sayer@nglep.com

26 For 3 Bear Delaware Operating - NM, LLC:

27 CHRISTOPHER L. COLCLASURE
28 Beatty & Wozniak, PC
29 216 16th Street
30 Suite 1100
31 Denver, Colorado 80202
32 (303) 407-4455
33 ccolclasure@bwenerylaw.com

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A P P E A R A N C E S (Continued)

For Solar Turbines, Inc.:

**LESLIE WITHERSPOON
Environmental Program Manager
Environmental Programs
Solar Turbines Incorporated
9330 Sky Park Court
MZ:SP3-Q
San Diego, California 92123-5398
(858) 694-6609
witherspoon_leslie_h@solarturbines.com**

1	I N D E X	
2		PAGE
3	WITNESSES:	
4	LIZ THOMSON	
5	Public Comment	2367
6	ADAM HOROWITZ	
7	Public Comment	2371
8	LISA DEVORE (Topic Orders 1, 2 and 24)	
9	Direct Testimony	2387
10	Cross-Examination by Mr. Rose	2398
11	Cross-Examination by Mr. Swift	2399
12	Cross-Examination by Mr. Hiser	2400
13	Cross-Examination by Mr. Baake	2402
14	Examination by the Board	2406
15	ELIZABETH BISBEY-KUEHN and BRIAN PALMER	
16	(Topic Order 27)	
17	Direct Examination by Ms. Katz	2428
18	Cross-Examination by Ms. Gutierrez	2441
19	Cross-Examination by Mr. Rose	2447
20	Cross-Examination by Mr. Hiser	2448
21	REBECCA LONG	
22	Public Comment	2490
23	HAROLD POPE	
24	Public Comment	2492
25	LORI WALTERS	
26	Public Comment	2496
27	SHELLEY MANN-LEV	
28	Public Comment	2500

1	I N D E X (Continued)	
2		PAGE
3	WITNESSES (Continued):	
4	JONATHAN SENA	
5	Public Comment	2504
6	JESSE BARNES	
7	Public Comment	2508
8	LESLIE NOLTING (Topic Order 27)	
9	Direct Examination by Ms. Gutierrez	2515
10	DANNY HOLDERMAN (Topic Order 27)	
11	Direct Examination by Mr. Janoe	2524
12	Cross-Examination by Mr. Hiser	2529
12	Examination by the Board	2531
13	DAVID LYON (Topic Order 27)	
14	Direct Examination by Ms. Paranhos	2537
15	Cross-Examination by Mr. Curtis	2564
15	Cross-Examination by Mr. de Saillan	2577
16	Cross-Examination by Ms. Fox	2578
16	Examination by the Board	2582
17	Redirect Examination by Ms. Paranhos	2588
18	HILLARY HULL (Topic Order 27)	
19	Direct Examination by Ms. Paranhos	2591
19	Cross-Examination by Mr. Hiser	2613
20	Cross-Examination by Mr. Rose	2620
20	Cross-Examination by Ms. Fox	2621
21	Cross-Examination by Mr. Jaynes	2624
21	Examination by the Board	2627
22		
23		
24		
25		

1	I N D E X (Continued)	
2		PAGE
3	WITNESSES (Continued):	
4	JOHN R. SMITHERMAN (Topic Order 27)	
5	Direct Examination by Mr. Hiser	2637
	Direct Examination (Continued) by Mr. Hiser	2665
6	Cross-Examination by Ms. Fox	2694
	Examination by the Board	2696
7	Further Direct Examination by Mr. Hiser	2708
	Further Examination by the Board	2710
8	BRENDA MC KENNA	
9	Public Comment	2650
10	DEE DICAMILLO	
11	Public Comment	2654
12	DAVE ANDERSON	
13	Public Comment	2657
14	SANDERS MOORE	
15	Public Comment	2661
16	TAMMY THOMPSON (Topic Order 27)	
17	Direct Examination by Ms. Paranhos	2717
18	Cross-Examination by Mr. Rose	2729
	Cross-Examination by Mr. de Saillan	2735
19	Examination by the Board	2738
20	CLIFFORD VILLA (Topic Order 27)	
21	Direct Examination by Mr. Shimanek	2743
	Cross-Examination by Mr. de Saillan	2764
22	Cross-Examination by Mr. Rose	2766
	Examination by the Board	2771
23	ELIZABETH BISBEY-KUEHN and BRIAN PALMER	
24	(Topic Order 27 continued)	
25	Direct Examination by Ms. Katz	2774

E X H I B I T S

ADMITTED

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

ENVIRONMENTAL DEFENSE FUND:

EDF XXa. Amendments to the Rebuttal Testimony of David Lyon 2539

EDF A. EDF's proposed revisions to NMED's Proposed Oil and Gas Sector-Ozone Precursor Pollutants Rule, 20.2.50 NMAC (May 6, 2021) 2539

EDF C. Alvarez et al., Assessment of Methane Emissions from the U.S. Oil and Gas Supply Chain, 361 SCI. 186-88 (2018) 2539

EDF D. Permian Methane Analysis Project, EDF 2539

EDF E. Zhang et al., Quantifying Methane Emissions from the Largest Oil-Producing Basin in the United States from Space, 6 SCI. ADVANCES, Apr. 22, 2020 2539

EDF F. Robertson et al., New Mexico Permian Basin Measured Well Pad Methane Emissions Are a Factor of 5-9 Times Higher Than U.S. EPA Estimates, 54:21 ENVTL. SCI. TECHNOL. 13926-13934 (2020) 2539

EDF G. Lyon et al., Concurrent Variation in Oil and Gas Methane Emissions and Oil Price During the COVID-19 Pandemic, ATMOS. CHEM. PHYS. DISCUSS (in review, Dec. 11, 2020) 2539

EDF H. Cusworth et al., Intermittency of Large Methane Emitters in the Permian Basin, 8:7 Envtl. Sci. Technol. Lett. 567-573 (June 2, 2021) 2539

EDF I. Irakulis-Loitxate et al., Satellite-Based Survey of Extreme Methane Emissions in the Permian Basin, 7:27 Sci. Adv. (June 30, 2021) 2539

E X H I B I T S (Continued)

ADMITTED

ENVIRONMENTAL DEFENSE FUND (Continued):

EDF K. EPA, Lessons Learned from Natural Gas
Star Partners: Options for Reducing Methane
Emissions from Pneumatic Devices in the
Natural Gas Industry, Appendix 1 (2006) 2539

EDF QQ. Rutherford, Jeffrey S. et al., Closing
the Gap: Explaining Persistent 2539
Underestimation by US Oil and Natural Gas
Production-Segment Methane Inventories,
EARTHARXIV (in review)

EDF RR. Direct testimony of David Lyon 2539

EDF YY. Deighton, Jacob A. et al., Measurements 2539
show that marginal wells are a
disproportionate source of methane relative to
production, 70(10) J. AIR & WASTE MGMT.
ASSOC. 1030 (Aug. 2020)

EDF ZZ. Omara, M. et al., Methane Emissions 2539
from Natural Gas Production Sites in the
United States: Data Synthesis and National
Estimate, 52 ENVTL. SCI. TECHNOL. 12915
(Sept. 2018)

EDF P. Resume of Hillary Hull 2591

EDF Q. Smith et al., Airborne Quantification of 2591
Methane Emissions over the Four Corners
Region, 51 ENVTL. SCI. TECHNOL. 5832 (2017)

EDF R. Allen et al., Methane Emissions from 2591
Process Equipment at Natural Gas
Production Sites in the United States:
Pneumatic Controllers, 49:1 Env'tl. Sci.
Technol. 633 (Dec. 9, 2014)

EDF T. O&G Emissions Inventory Project: Greater 2591
San Juan and Permian Basin, Western Regional
Air Partnership ("WRAP")

E X H I B I T S (Continued)

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ENVIRONMENTAL DEFENSE FUND (Continued):

EDF U. Oil and Natural Gas Sector: Standards for 2591
Crude Oil and Natural Gas Facilities,
Background Technical Support Document for the
Proposed New Source Performance Standards 40
CFR Part 60, subpart 0000a (Aug. 2015)

EDF V. Colorado Air Quality Control Commission 2591
Rule, 5 C.C.R., 1001-9, D.

EDF X. Proximity Dataset Table 2591

EDF Y. Control Techniques Guidelines for the Oil 2591
and Natural Gas Industry Table 9-13, EPA
(Oct. 2016)

EDF Z. Background Technical Support Document, 2591
Proposed Reconsideration of the New Source
Performance Standards 40 C.F.R. Part 60,
subpart 0000a (Sept. 2018)

EDF AA. Analysis of 0000a Annual Air Emission 2591
Reports, MJB&A (Dec. 11, 2018)

EDF CC. California Air Resources Board ("CARB"), 2591
Summary of Cost, Emissions, and Cost per Ton
using the 20 year and 100 year GWP,
Respectively (revised Feb. 17, 2017)

EDF DD. American Community Survey Data, United 2591
States Census Bureau, and Places:Local Data
For Better Health, Centers for Disease Control
and Prevention, (data drawn from multiple
links)

EDF FF. Resume of Tammy M. Thompson 2591

EDF JJJ. Rebuttal Testimony of Hillary Hull 2591

EDF III. Marcy Lowe and Robin Lowe-Skillern, Datu 2591
Research, Find, Measure, Fix: Jobs in the U.S.
Methane Emissions Mitigation Industry (2021)

E X H I B I T S (Continued)

ADMITTED

NEW MEXICO OIL AND GAS ASSOCIATION:

NMOGA 58. PowerPoint presentation, Topic 27S 2713

CENTER FOR CIVIC POLICY AND NAVA EDUCATION PROJECT:

CCP and NAVA EP 6. Rebuttal Testimony of Clifford Villa 2743

CCP and NAVA EP 7. Curriculum Vitae of Clifford Villa 2743

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

3 I believe I've captured all of the attendees
4 who should be made panelists.

5 No matter how many times I try to do grid
6 setting, it goes to speaker.

7 Good morning.

8 I see Ms. Gutierrez on the screen and
9 Mr. Shimanek and Cheryl, our court reporter.

10 I just had a text now from Tannis saying she
11 cannot hear us. Hmm. She's going to log on and off.
12 So we'll give her a moment to do that.

13 We're on the platform this morning at 8:30,
14 before nine o'clock public comment.

15 MS. FOX: Can you hear me?

16 HEARING OFFICER ORTH: Yes.

17 MS. FOX: I can't hear you. And I --

18 HEARING OFFICER ORTH: Uh-oh.

19 MS. FOX: -- tested my sound before I came on.

20 I'm going to log on and off.

21 HEARING OFFICER ORTH: All right. Thank you.

22 While Ms. Fox is doing that, as I understand
23 it, we're going to address three topics this morning.
24 One is the exhibits subject to objection on the basis
25 that they relate to methane. The second is the NMOGA's

1 motion to strike certain sections of CCP and NAVA
2 exhibit, particularly the rebuttal testimony of
3 Professor -- I think it's Villa, rather than Villa. And
4 we'll go from there to the motion to strike NMOGA's
5 newest surrebuttal.

6 But let's wait. And if there's something I'm
7 missing that we need to do before 9:00, please speak up,
8 while we're waiting for Tannis.

9 Tannis, can you hear me?

10 A text is saying she still cannot hear.

11 MS. FOX: No. I can. This is very odd, but
12 yes, I can now. When I first came on, I couldn't, but I
13 can. Thank you.

14 HEARING OFFICER ORTH: All right. I'm glad --
15 I'm glad that worked.

16 Let's start with the exhibits.

17 I'm going to pick on Mr. Rose for a minute.

18 Mr. Rose, what -- let's see. I don't see
19 Mr. Rose.

20 Is he with us?

21 He's not. All right.

22 Mr. Hiser. You know, having -- having
23 conducted the methane hearing in January for the OCC, I
24 certainly appreciate the distinction between what the
25 OCC was doing then and what the EIB would be doing now,

1 but I'm wondering if you would offer the most charitable
2 characterization that you could of why folks who perhaps
3 aren't as close to these rulemakings would be confused
4 here. We had heard some about methane in the hearing,
5 particularly from public commenters.

6 MR. HISER: I'm sorry, Ms. Orth. It's not
7 clear to me what motion you're actually addressing at
8 this point.

9 HEARING OFFICER ORTH: These are the
10 objections by NMOGA and IPANM.

11 MR. HISER: You're asking about our objection
12 to a couple of the exhibits from either EDF or Clean Air
13 Advocates?

14 HEARING OFFICER ORTH: Yes.

15 MR. HISER: Yes. Our -- our -- we have -- our
16 objection I just think goes to a question of nuance,
17 Madam Hearing Officer, which is that we think by and
18 large they've been used appropriately throughout the
19 hearing, and I think that we would be satisfied just
20 with a reminder from the Hearing Officer that this is a
21 rule about ozone and its precursors, and that
22 information should be considered in that light, as
23 opposed to the Board suddenly crafting a methane rule
24 based on the fact that there's a methane document in the
25 docket.

1 And with that -- that's really all we're
2 seeking here, is just a reminder along those lines.

3 HEARING OFFICER ORTH: Okay. And I would
4 certainly put that in any report, number one.

5 Number two, I really think that this Board is
6 sufficiently engaged and sophisticated, frankly, about
7 our subject matter that they would not, in fact, be
8 confused. That's just how I feel about this Board. But
9 thank you for that.

10 MR. HISER: (Simultaneous discussion) Madam
11 Hearing Officer, that I think that New Mexico is well
12 served by the Board that it has in this case, which is
13 very actively engaged, obviously, has spent quite a bit
14 of time on the issues. So I heartily second that
15 sentiment that you have.

16 HEARING OFFICER ORTH: Thank you.

17 Ms. Paranhos, anything to add?

18 MS. PARANHOS: Thanks so much, Madam Hearing
19 Officer.

20 I would just really agree with what Mr. Hiser
21 just said. I mean, the information that we've offered
22 with respect to methane is either by way of
23 demonstrating co-benefits, we're never asking the Board
24 to directly regulate methane, nor to rely on methane
25 reductions as the basis for a cost effectiveness

1 analysis, nor to rely on any methane-only specific
2 control technology.

3 So methane is co-admitted with VOCs, it is
4 part of natural gas, and so we think it's appropriate to
5 speak to the co-benefits of what happens when a
6 regulator reduces VOC emissions as part of an ozone
7 precursor rule. There will also be methane co-benefits.

8 And I guess I would just add that that is very
9 standard practice. EPA does that routinely. They
10 consider co-benefits. Other regulators do, as well.

11 Just one example is in 2012 when EPA
12 promulgated the first New Source Performance Standards
13 for oil and gas sources, that was just a VOC rule. They
14 weren't directly regulating VOCs, but they did estimate
15 the cost effectiveness of methane reductions, and they
16 did talk a lot about methane co-benefits, and they
17 relied on information about methane control technologies
18 that operators had employed as part of the Natural Gas
19 STAR Program.

20 And so it's a very similar kind of a
21 proceeding here as to what EPA did back in 2012, and for
22 that reason that's why we've included some of this
23 information on methane emissions and control technology
24 that can produce both methane and VOCs.

25 HEARING OFFICER ORTH: Thank you very much.

1 Mr. de Saillan, anything to add?

2 Right -- right now I'm just planning to
3 (unintelligible and/or inaudible) NMOGA'S objection,
4 IAPNM's objection to EDF and NMED exhibits and CCP,
5 but --

6 THE REPORTER: Excuse me, Ms. Orth. Could you
7 repeat that. You cut out a little bit.

8 HEARING OFFICER ORTH: Oh, I'm very sorry.

9 I was asking Mr. de Saillan if he had anything
10 to add on my way to overruling the objections based on a
11 possible confusion between methane and ozone.

12 Mr. de Saillan?

13 MR. DE SAILLAN: Thank you, Madam Hearing
14 Officer. I just want to make a couple of comments here.

15 I agree with what Ms. Paranhos said, but I
16 also want to make the point that earlier in this hearing
17 we heard from a NMOGA economist expert, Mr. Dunham, and
18 he testified about the negative consequences in his view
19 of this rule, things like lost jobs and lost revenues to
20 the state.

21 Insofar as I'm aware, none of the parties
22 objected to that testimony or to his report. And
23 without commenting on the quality of that evidence, I
24 think it is generally the -- the type of evidence that
25 this Board can and should hear. But by the same token,

1 I think that it's important for the Board to hear about
2 the -- the co-benefits, the consequential benefits, if
3 you will, of this rule.

4 So we strongly oppose this motion.

5 Thank you.

6 HEARING OFFICER ORTH: Thank you.

7 So just to put it on the record, NMOGA and
8 IPANM's objections to the exhibits listed both in an
9 e-mail and in the attached Word document from IPANM are
10 overruled, and there will be a mention to the Board, at
11 least in my report, and presumably in the parties'
12 posthearing submittals, just being clear --

13 MR. HISER: Madam Hearing Officer --

14 (Simultaneous discussion.)

15 HEARING OFFICER ORTH: -- over the rulemaking.

16 Ms. Hise -- Mr. Hiser.

17 MR. HISER: (Unintelligible and/or inaudible)
18 counsel, Mr. Hiser.

19 I would note that in your discussion of the
20 proceedings for this morning, you did not specifically
21 mention IPA's objections for this, and so therefore I
22 think it's not appropriate for you to rule which is
23 basically on an IPA New Mexico solely on the strength of
24 NMOGA's position on that.

25 HEARING OFFICER ORTH: Okay.

1 MR. ROSE: And, Madam Hearing Officer, I'm
2 sorry I'm late, but I was having logistical problems.

3 And I thought we had agreed that the evidence
4 would be admitted subject to our objection and that we
5 brief the objection in the posthearing submittals so
6 that we wouldn't hold up the hearing. So -- at least
7 that was my understanding with Ms. Fox and others as to
8 why we didn't argue them at the admission of their
9 evidence, and they're putting on their evidence.

10 So --

11 HEARING OFFICER ORTH: Okay.

12 MR. ROSE: -- if you rule on this motion,
13 obviously, I'd want to be heard, but it wasn't a motion,
14 it was merely an objection to admissibility, and it
15 seems to me that -- that we've stated any number of
16 times that -- that the evidence is being admitted
17 subject to the objection which would be addressed in
18 posthearing submittals.

19 So I certainly was not prepared to argue this
20 as a motion this morning, and as you can tell, I was
21 having logistical problems, and it seems to me arguing
22 it without me being able to actually present it and
23 respond I think is inappropriate.

24 HEARING OFFICER ORTH: All right. Thank you,
25 Mr. Rose.

1 I'm sorry. I was going through my --

2 Hold on, Ms. Fox.

3 I was going through my stack of papers that I
4 felt like I still needed to address, and this seemed
5 more straightforward than the others.

6 Ms. Fox, I'd like to move on, unless you have
7 something you need to say right now.

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

9 I was just going to suggest since it appears
10 that you've already formulated an opinion on this issue,
11 that -- and I understand Mr. -- we did have this
12 agreement with Mr. Rose on one hand.

13 On the other hand, you seem to have addressed
14 this issue fully, and I wonder and -- but I do
15 appreciate Mr. Rose wanting an opportunity to speak on
16 this issue, and so perhaps that could be done in order
17 to take this issue off the table. Maybe Mr. Rose could
18 present his argument over the lunch hour or some other
19 time today.

20 I don't think crafting that argument will take
21 too much of his time, and it does appear as though,
22 Madam Hearing Officer, you've -- you understand the
23 issue and you've made your decision.

24 HEARING OFFICER ORTH: All right. Thank you.

25 We have just a little bit of time left. I'd

1 like to move on to NMOGA's motion to strike CCP and NAVA
2 Exhibit 6, which is the rebuttal testimony of technical
3 witness Professor Villa.

4 Let me just say I carefully considered the
5 motion, the response and the reply. I certainly want to
6 thank CCP and NAVA for their -- the excellent written
7 response.

8 Here, too, though, I don't feel like I need to
9 hear extensive motion argument, because NMOGA's
10 understanding just doesn't comport with my own, and in
11 this case, Mr. Hiser, you have the disadvantage of
12 having as a Hearing Officer someone who has been in the
13 EIB's orbit since the mid-'80s.

14 We have taken a lot of technical testimony
15 that was, in fact, expert legal testimony. We took it
16 in the Solid Waste Management Regulations overhaul in
17 2006. We heard expert legal testimony from the general
18 counsel of the Municipal League. We took it in, I
19 think, our first clean cars hearing in 2008. Certainly
20 heard lots of it from former EPA lawyers in the
21 greenhouse gas emissions hearings in 2010 and 2011, when
22 they were put into place and when they were undone.

23 So it's just the statements here, I think, are
24 simply incorrect. This Board is accustomed to hearing
25 expert legal testimony.

1 Are there any questions about that?

2 I really -- it's just part of our history,
3 part of the Board's history.

4 MR. HISER: For the record, I would simply
5 note that this is inconsistent with this Hearing
6 Officer's prior resolution on the NMOGA matter, and so
7 we simply adhere to that prior approach that was taken.
8 I have nothing further to add other than making that
9 note for the record.

10 HEARING OFFICER ORTH: Thank you.

11 Ms. Katz?

12 MS. KATZ: Madam Hearing Officer, I would just
13 note that the arguments that were made regarding the
14 legal argument that NMOGA put forward were based on the
15 fact that the technical experts that that testimony was
16 purportedly attached to were not actual legal experts,
17 and that when you have a lawyer who is a legal expert,
18 then that is an appropriate time to make those types of
19 legal -- that you could put that testimony before the
20 Board.

21 HEARING OFFICER ORTH: All right. Thank you
22 for, that Ms. Katz.

23 Mr. Rose?

24 MR. ROSE: Yes. First, we join in NMOGA's
25 motion; but secondly, it seems to me that what we're --

1 what they're putting forward by the way of legal test --
2 testimony really isn't expert legal testimony, it's
3 basically legal argument. It seems to me that giving
4 them basically more than one bite at the apple in terms
5 of making legal argument is inappropriate.

6 It seems -- the testimony, as it were, seems
7 to me to be perfectly appropriate if you're going to
8 argue it posthearing, but I don't think it rises to the
9 level of needing expert testimony. All of us can read
10 the statutes and decide -- and argue whether or not
11 they're applicable in this context.

12 So I don't think the Board needs legal advice
13 from out -- someone outside of the Board's counsel, and
14 it seems to me it's really improper factual testimony,
15 as well. It wouldn't rise to the level of expert
16 testimony, I don't believe, in a court proceeding. So I
17 don't think it should be here, as well.

18 HEARING OFFICER ORTH: All right. Thank you
19 for that.

20 I certainly have again on behalf of the Board
21 a history of navigating the line between the sort of
22 expert testimony that would be taken in a court and the
23 sort of expert testimony that would be taken before an
24 administrative board, and I believe Professor Villa
25 clears that -- clears that bar.

1 Mr. Hiser, did you have something to add?

2 I'd like to move to the -- I'd like to move --

3 MR. HISER: Madam Hearing Officer, I have
4 nothing else.

5 HEARING OFFICER ORTH: All right. Thank you.

6 So as to Clean Air Advocates, EDF's and NMED's
7 joint motion to strike parts of NMOGA's proposed
8 surrebuttal on LDAR, I certainly read the motion and the
9 response, and a few things came to mind.

10 Certainly if a lot of economic data would be
11 coming in to surprise any rulemaking petitioner halfway
12 through the hearing, I -- I want to avoid that
13 fundamental unfairness to any petitioner, and I'm
14 sensitive to any sandbagging or other attempts at
15 surprise in a rulemaking, which doesn't serve anyone's
16 best interest.

17 At the same time, having gone through the
18 table that NMOGA put together at the end of the
19 narrative part of their motion, it seemed like there
20 wasn't perhaps as much data as I feared that was new.

21 So I'd like to spend a little time on the
22 slides and the spreadsheets in particular, because this
23 is where I still had questions. NMOGA states that it's
24 entitled to rebut the statements made on rebuttal, that
25 EIB should conclude from Oxy's joining of the proximity

1 LDAR concept that the measures are feasible for
2 industry.

3 Mr. Hiser, if you would address that, please.

4 I -- I imagine that NMOGA would have been motivated to
5 offer whatever evidence it had on feasibility regardless
6 of what Oxy was doing. I mean, presumably you felt the
7 way you felt before Oxy reached whatever agreement it
8 reached with -- with the others. Would you address
9 that?

10 MR. HISER: So, Madam Hearing Officer, I think
11 that NMOGA has addressed throughout this hearing its
12 concerns about the frequency and cost of LDAR provisions
13 in the testimony of Mr. Smitherman and in a number of
14 its exhibits, which were introduced without objection,
15 including Exhibit 37, which is, for example, our cost
16 model and all the underlying data from the greenhouse
17 gas reporting program.

18 However, under the Clean Air Act, as
19 Ms. Paranhos has reminded us and as you yourself just
20 spoke, any time an industry member does something, that
21 may be used as, quote, proof in the Clean Air Act
22 context that something is technically and economically
23 feasible.

24 Clean Air Act -- Advocates witness Dr. McCabe
25 specifically makes that point in his rebuttal testimony,

1 and that means that to the extent that that may not have
2 been an issue, that it's been reopened for us to
3 investigate. Those comments were all made in rebuttal.
4 Therefore, we could not have responded to them prior to
5 that time frame.

6 On the general issue, though, of LDAR costs
7 and LDAR frequency, NMOGA's position has been pretty
8 clear since its direct testimony that it believes that
9 the costs do not warrant the benefits that are here,
10 although we agree that there should be LDAR overall, as
11 you heard from Mr. Smitherman in his testimony on
12 pneumatics.

13 So I think, then, that the whole question of
14 us not being able to speak to the relative frequency
15 when that has been an issue that we have placed in front
16 of the Board since the inception of this case is
17 counterfactual, charitably, by the other parties.

18 HEARING OFFICER ORTH: Thank you.

19 I saw Ms. Paranhos first and then Ms. Fox.

20 MS. PARANHOS: Thank you so much.

21 So I think in particular with respect to EDF's
22 LDAR proximity proposal, there was no testimony nor any
23 type of exhibit even that directly rebutted Hillary
24 Hull's cost effectiveness estimate of our enhanced LDAR
25 proximity proposal.

1 In Hillary's direct she estimated the
2 reductions and the costs that EDF believes are
3 applicable to our LDAR proximity proposal, and no party
4 in their rebuttal rebutted that particular analysis.
5 That analysis is different than what NMED did, because
6 EDF used its own estimate of the VOC emissions that
7 would accrue, as well as our own estimate of cost.

8 And so it is particularly prejudicial to us
9 that on surrebuttal NMOGA is now rebutting our cost
10 effectiveness estimate. I would have been happy to have
11 responded in our surrebuttal had they responded in their
12 rebuttal. However, now we don't have that opportunity.

13 HEARING OFFICER ORTH: Thank you.

14 Let's see. Ms. Fox and then Ms. Katz.

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

16 You know, all that I have to add to what
17 Ms. Paranhos just said is -- if I could have screen
18 sharing ability, I'd like to just briefly show you
19 Ms. Hull's testimony just so you have a sense of the
20 detail of it.

21 Thank you.

22 We see -- there we go.

23 So Ms. Hull presented pretty detailed
24 testimony in her direct testimony on the estimated costs
25 of our LDAR proposal in the estimated emissions

1 reductions.

2 I have seven pages up here where she
3 describes, you know, how they got to the number of
4 wells, for example, that would apply, the methodology
5 that we use to estimate the number of homes or EDF
6 number of homes in places of residence and business that
7 would apply, methodology to estimate leaks, cost
8 effectiveness of the proposal, and even comparing the
9 cost effectiveness of the proposal with other
10 jurisdictions.

11 So they're all backed up with numbers, and
12 then this testimony is backed up with numerous exhibits,
13 as well.

14 And so if NMOGA wanted to rebut the cost
15 estimates and the emission reductions, they should have
16 done it in rebuttal, not in response to a comment from
17 Dr. McCabe, who is not an economist, that merely said
18 that the fact that Oxy is joining in this proposal shows
19 that it's technically feasible. That's what they're
20 hanging their hat on to provide this kind of evidence
21 rebutting the proximity proposal, when they said in --
22 in NMOGA's rebuttal they did not mention the proximity
23 proposal at all.

24 HEARING OFFICER ORTH: Okay. Thank you.

25 Ms. Katz?

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

2 And NMED's concern was mainly regarding the
3 NMOGA model plant issue and the spreadsheets that NMOGA
4 has now put forward as surrebuttal, and in -- and in
5 their slides 10 through 11 of the surrebuttal. And they
6 point their -- in their table that they included with
7 their response, they say that they provided all the data
8 in their Exhibit 27.

9 You know, that is the GHGRP data, and so they
10 had that data, and then they just put the final numbers
11 that they had in their -- in their testimony. And now
12 in rebuttal, they -- they didn't show any of their work
13 on that, how they got to that -- those numbers, and
14 their -- that one page, tiny -- the tiny, little font
15 GHGRP data, there's nothing intuitive as to how they
16 went from that to these model plant numbers that they
17 put forward.

18 And so, you know, it's incumbent on them to
19 show their work, how they did that, and now they're
20 putting that forward in slides 10 and 11 and these
21 spreadsheets, and, you know, the -- and those
22 spreadsheets all point out that if you look at the file
23 data they were created on July 22nd and July 26. So
24 they -- they clearly had them -- or they had done the
25 work to -- and had that methodology that they could have

1 and should have provided with their direct testimony or
2 their rebuttal, but they didn't.

3 And so it's just really not appropriate for
4 that to come in now, in the middle of the hearing as
5 surrebuttal. And that was the Department's main issue.

6 HEARING OFFICER ORTH: All right. Thank you.

7 Mr. Hiser, is there some reason the data
8 wasn't provided earlier so that it would not be a
9 surprise?

10 MR. HISER: Well, Madam Hearing Officer, it
11 was discussed, and the basic point that we had made,
12 which was that the greenhouse gas reporting data, which
13 includes the equipment count, shows that the equipment
14 counts that were being used is pretty clear in terms of
15 its import and impact. And all that data is publicly
16 available to anybody.

17 We didn't think it was necessary to actually
18 show the math at the level of two times two equals four.
19 But the Department said that they were having trouble
20 following the math, and so we're merely providing the
21 math that shows that the -- what we did before is what
22 we said we did.

23 So I don't think that there's any question of
24 surprise here. The NMED devoted like eight pages to our
25 economic analysis and the cost data. They clearly

1 understood what the import of our analysis was. They
2 disagreed with our contention about the greenhouse gas
3 data.

4 And so this is really just supplying
5 additional information to help people understand what
6 that point was. There's no question about surprise, and
7 they -- plus they've had since last Thursday to look at
8 this. It's not like we've sprung this on them last
9 night, which has been sort of the practice for turning
10 in surrebuttal testimony.

11 So I don't believe that the Department has any
12 real thing that it can say.

13 Plus, the Department itself is changing its
14 position constantly about what its frequency is, and
15 that puts the cost effectiveness of its constant changes
16 of frequency certainly at issue. We couldn't respond to
17 that. They did that after the rebuttal deadline. So I
18 don't think the Department has anything really to say
19 here.

20 In terms of Ms. Paranhos and the environmental
21 groups, a quick and simple response to that is that our
22 principal beef here is with the Department's data, and
23 our response is to the Department's data. And so while
24 we believe that the issue of cost effectiveness is
25 certainly joined, we are particularly proposing to

1 surrebut the specific numbers that are in their data,
2 where our focus is on the Department's data, and that's
3 what we're showing here.

4 HEARING OFFICER ORTH: All right.

5 Oh, Ms. Fox.

6 MS. FOX: Just very briefly, Madam Hearing
7 Officer.

8 So I'm not -- I'm not sure, but maybe I heard
9 Mr. Hiser just say that he's withdrawing the slides with
10 regard to the occupied area proposal?

11 MR. HISER: I am not withdrawing them, because
12 we placed in issue frequency from our direct testimony
13 thereon.

14 MS. FOX: Okay.

15 MR. HISER: That means it's an issue before
16 the hearing, and if they want to rely on their data,
17 they may, but we're certainly entitled to rely on the
18 Department data on the frequency issue.

19 MS. FOX: Sorry.

20 Just again in order to really understand
21 what's going on here, the Department put forth their
22 LDAR costs and estimated reductions in a spreadsheet
23 that they put online in January -- in June and then put
24 that in their direct testimony.

25 And in NMOGA's comments in its direct case, in

1 its red-line, the comments that were struck because they
2 were inappropriately filed, NMOGA specifically
3 referenced that spreadsheet, which is -- I mean, it's
4 very complicated.

5 I'm sure, Madam Hearing Officer, you've seen
6 it. I'm just going to throw it up on the screen here.

7 Oh, hold on.

8 HEARING OFFICER ORTH: I see it. I'm holding
9 it, Ms. Fox.

10 MS. FOX: Okay. Great.

11 And so, you know, NMOGA was fully aware
12 that -- of that spreadsheet. It referenced it in its
13 direct case. As Ms. Katz has pointed out, the two
14 spreadsheets, which are really the most problematic
15 evidence to -- that they're offering at this late date,
16 were created before NMOGA filed its direct case.

17 And so it's -- it really is unfair not to
18 show -- have shown that evidence now. And we also
19 question whether Mr. Smitherman is the witness who
20 developed that table, those spreadsheets, and is the
21 correct witness to present that evidence.

22 HEARING OFFICER ORTH: All right. Thank you
23 for that.

24 We're now -- oh, Ms. Katz.

25 MS. KATZ: Sorry, Madam Hearing Officer.

1 Did you -- you froze so -- and I had raised my
2 hand. I don't know if you called on me.

3 HEARING OFFICER ORTH: I'm sorry if I froze.
4 Please, Ms. Katz.

5 MS. KATZ: I just simply wanted to respond to
6 Mr. Hiser's statement that NMED has been changing
7 constantly, and I just wanted to say that it's true in
8 our September 7th filing that we had proposed some
9 changes to the LDAR frequencies, but that then one week
10 later we changed it, and that simply went back to what
11 it was before.

12 So the suggestion that there have been, you
13 know, un- -- those were totally unanticipated and
14 difficult to understand, it simply went back to what it
15 had been the whole time before. So it changed for a
16 week, and then it went back to exactly what it was
17 throughout -- since it was -- as it was in May, when we
18 filed the petition.

19 HEARING OFFICER ORTH: All right. Thank you.

20 So we are now a few minutes past nine o'clock.
21 We do have four public commenters this morning.

22 If you're on the platform to offer public
23 comment, I will invite it in just a moment.

24 At this point, based on my understanding of
25 the Board's rulemaking procedures in 20.1.1, including

1 partly the responsibilities of the Hearing Officer,
2 partly the definition of record proper, for example,
3 what I'm inclined to do -- because I really am sensitive
4 to detailed information coming in as a surprise, I do
5 think it's fundamentally unfair to the petitioner, to
6 handle it more as an offer of proof, that is to say to
7 exclude it, but allow NMOGA to describe what they would
8 be offering if they were allowed to offer it, because it
9 will remain in the record proper for better or worse.

10 We can talk further about this after I accept
11 public comment if we need to have more discussion.

12 Okay. Board Members, if you're on the
13 platform, you can turn on your screen now.

14 Thank you very much for waiting while we
15 discussed some procedural matters just now.

16 Members of the public, my name is Felicia
17 Orth, Hearing Officer conducting a hearing in EIB 21-27,
18 a rulemaking on ozone precursors.

19 We have public comment sessions every day at
20 9:00, 1:00 and 5:00.

21 This morning I'll be calling on the public who
22 reached out to the Board administrator in this order,
23 Representative Andrea Romero, Representative Liz
24 Thomson, Duane Chili Yazzie and Adam Horowitz.

25 If you're on the platform and did not

1 communicate via e-mail with the Board administrator, I
2 am still happy to accept your comment. Please reach out
3 through the chat which is enabled for everyone.

4 Public comment is taken under oath, is taken
5 by audio, not video, and is limited to five minutes.

6 So let me look for Representative Romero.

7 I am not seeing Andrea Romero.

8 Let me look for Liz Thomson.

9 All right. Can you hear me, Representative
10 Thomson?

11 Hello?

12 MS. THOMSON: Yes. I can hear you. Thank
13 you.

14 Are you ready?

15 HEARING OFFICER ORTH: Oh, good. I can hear
16 your voice -- I can hear your voice clearly.

17 If would you please spell your name.

18 MS. THOMSON: Okay. Liz, L-I-Z, Thomson,
19 T-H-O-M-S-O-N.

20 HEARING OFFICER ORTH: Thank you.

21 If you would raise your right hand.

22 Do you swear or affirm to tell the truth?

23 MS. THOMSON: I do.

24 HEARING OFFICER ORTH: Thank you.

25

1 LIZ THOMSON

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

4 PUBLIC COMMENT

5 HEARING OFFICER ORTH: I'm going to start your
6 five minutes now.

7 MS. THOMSON: Thank you.

8 As I said, I'm Representative Liz Thomson. I
9 represent House District 24, which is in the Northeast
10 Heights of Albuquerque. But I'm speaking on behalf of
11 kids' lungs statewide.

12 I have served the previous six years as
13 co-chair of the New Mexico Tobacco Settlement Oversight
14 Committee, and one of our main goals is to keep teens
15 from using to -- youth from using tobacco, because we
16 know how important lungs are.

17 I support Governor Michelle Lujan Grisham's
18 call for nation-leading oil and gas pollution rules. To
19 achieve that goal, the Environmental Improvement Board
20 must strengthen the New Mexico Environment Department's
21 proposed ozone precursor rules to protect those living
22 closest to development.

23 As a mother and a grandmother, my top concern
24 is the lungs and health of all kids, my kids and
25 grandkids included. Every child in our state has the

1 right to breathe clean air without industry threatening
2 that -- that those same kids' schooling will be taken
3 away with these rules. That is not the case.

4 Every industry, no matter what it contributes
5 to society, has an obligation to be a good corporate
6 citizen. Industry contributes to our schools and our
7 state budget, but they also make billions of dollars in
8 profit by extracting publicly held resources off of our
9 public lands, and they export most of that profit out of
10 state. Spending a miniscule amount to protect our kids'
11 lungs is the least they can do.

12 These rules are a basic courtesy to the people
13 who live close to industry and threatening to leave the
14 state because of the same industry rules that it follows
15 in Colorado is unacceptable. In fact, Colorado has
16 successfully implemented more frequent inspection
17 schedules for homes and schools that have oil and gas
18 wells in their backyards, and New Mexico should do the
19 same.

20 Also, setting strong rules at the state level
21 sets a good bar for forthcoming federal methane rules
22 that can help protect New Mexicans from states like
23 Texas who does -- who don't have the same kind of
24 regulations.

25 Oil and gas pollution are taking a toll on all

1 New Mexicans' air, water and health, but rural
2 communities, tribal communities, children and the
3 elderly are especially at risk. And I will note that I
4 grew up in the Crownpoint area. I grew up in
5 Crownpoint.

6 More than 130,000 New Mexicans live within a
7 half a mile of oil and gas development, including
8 communities of color, that face disproportionate impacts
9 from climate change and air pollution. Leaks due to
10 equipment malfunction and lack of maintenance account
11 for 70 percent of the oil and gas industry's emissions
12 statewide.

13 I appreciate the strong rules that NMED has
14 put forward to a strong -- and they have put forward a
15 strong proposal. Here are three critical improvements
16 that EIB should make to protect communities and address
17 major sources of pollution.

18 One, protect those living closest to
19 development by requiring more frequent inspections to
20 find and fix leaks.

21 Two, ensure strong requirements for operators
22 to control pollution during completion of an oil or gas
23 well, as well as when they redevelop an existing well.

24 And strengthen requirements -- number three is
25 strengthen requirements to cut pollution from pneumatic

1 controllers that are used in oil and gas production.
2 The devices are the second largest source of oil and gas
3 methane emissions in New Mexico. NMED should require
4 companies to inspect pneumatics for leaks and accelerate
5 the timeline to retrofit equipment with zero bleed or
6 zero emission pneumatic controllers.

7 Thank you for taking the time to listen to me.
8 Thank you for all that you do, especially to protect a
9 New Mexican's kids. Thank you so much.

10 HEARING OFFICER ORTH: Thank you,
11 Representative Thomson.

12 Let me look for Duane Chili Yazzie.

13 I don't see him by name. Perhaps Call-in User
14 Number 5.

15 Caller Number 5, would you tell us who you
16 are?

17 Caller 5? Hello?

18 CALL-IN USER 5: (Unintelligible and/or
19 inaudible.)

20 HEARING OFFICER ORTH: Caller 5?

21 CALL-IN USER 5: (Unintelligible and/or
22 inaudible.)

23 HEARING OFFICER ORTH: Okay.

24 Let me move to Mr. Horowitz.

25 Mr. Horowitz, I've unmuted you.

1 Can you hear me?

2 MR. HOROWITZ: Yes, I can. Thank you.

3 HEARING OFFICER ORTH: If you would spell your
4 name first, please.

5 MR. HOROWITZ: Yes. Adam, A-D-A-M, Horowitz,
6 H-O-R-O-W-I-T-Z.

7 HEARING OFFICER ORTH: And if you would raise
8 your right hand.

9 Do you swear or affirm to tell the truth?

10 MR. HOROWITZ: I do.

11 HEARING OFFICER ORTH: Thank you.

12 ADAM HOROWITZ

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

15 PUBLIC COMMENT

16 HEARING OFFICER ORTH: I'll start your five
17 minutes now.

18 MR. HOROWITZ: Thank you.

19 Good morning, all, and thank you so much for
20 accepting public comment on this important methane
21 pollution rule.

22 My name is Adam Horowitz, and I'm a New Mexico
23 resident and a co-founder of three national nonprofit
24 organizations working at the intersection of faith,
25 community and social environmental justice. As a person

1 rooted in a faith tradition, which holds all of creation
2 as sacred, and as a citizen of the US, one of the
3 world's top contributors to climate change, I believe we
4 face a profound moral responsibility to do everything we
5 can to protect life on our precious planet.

6 My work brings me into contact with many young
7 adults who are fearful of the climate chaos in the world
8 they are inheriting. Earlier this month the results of
9 a worldwide survey of young people, ages 16 to 25,
10 showed that some 60 percent were very or extremely
11 worried about climate change, and 65 percent felt that
12 governments were failing young people when it comes to
13 climate change.

14 Here in New Mexico, a state that emits more
15 than 1.1 million tons of methane each year, a state that
16 made national news for its methane cloud visible by
17 satellite, we have a chance to make a difference, and to
18 model a government that is not failing its young people.
19 But it will take more effort.

20 We have many young people and children living
21 within critical ranges of the oil and gas industry in
22 New Mexico whose health is adversely affected by these
23 operations. We have a responsibility to care for our
24 children and youth whose voices are often not heard in
25 forums like these.

1 While the Environment Department has put
2 forward a strong proposal, more work needs to be done to
3 protect communities and to meet the Governor's
4 aspiration of nation-leading rules to cut pollution.

5 Specifically, the Environmental Department --
6 the Environment Department should require more frequent
7 inspections to find and fix leaks, ensure stronger
8 requirements for operators to control pollution during
9 the completion or redevelopment of an oil or gas well,
10 and to strengthen requirements to cut pollution from the
11 very high emissions pneumatic controllers that are used
12 in oil and gas production.

13 So let us prove to our young people and to
14 frontline communities that we are not willing to
15 sacrifice their health and well-being for convenience
16 and profit. Let us do our part to curb climate change
17 and ensure that young people in New Mexico and around
18 the world have a liveable future.

19 Thank you.

20 HEARING OFFICER ORTH: Thank you very much,
21 Mr. Horowitz.

22 Let's see. Let me look for Representative
23 Romero again.

24 I don't see an Andrea Romero in the list.

25 And I don't see Duane Chili Yazzie.

1 I'm going to go back to Caller 5.

2 Caller 5, can you hear me?

3 Nothing there. Okay.

4 There are several more opportunities to offer
5 public comment in this hearing, 9:00, 1:00 and 5:00
6 every day. Please reach out to Pam Jones, the Board
7 administrator, to identify the slot in which you would
8 like me to call your name.

9 Let's return to the technical case at this
10 time.

11 Board Members, we heard some argument between
12 8:30 and 9:00. We did not quite finish the
13 conversation, and at this point the -- let me sum up,
14 and I'll invite counsel to come back on the screen if
15 they have questions.

16 I denied the motion to preclude Professor
17 Villa from testifying, noting that I've taken a lot of
18 legal testimony as, quote, unquote, technical testimony.
19 I've served the Environmental Improvement Board, a
20 variety of boards over the years, 1999, and the
21 Environmental Improvement Board has a long history of
22 accepting legal testimony, if you will, expert legal
23 testimony, in its rulemaking hearings.

24 I also used to accept it at Department
25 hearings in permitting and enforcement cases, and I

1 believe Professor Villa clears -- clears the bar, as I
2 said, for providing knowledgeable testimony that may
3 assist this Board in its deliberations.

4 So we'll hear from CCP and Nava's witness on
5 rebuttal.

6 The motion to strike some of NMOGA's
7 surrebuttal was definitely more challenging.

8 MEMBER HONKER: Madam Hearing Officer, you're
9 cutting out at least on my system. I don't know if
10 everybody else is hearing that.

11 HEARING OFFICER ORTH: Oh, I'm very sorry.
12 I'm going to turn off my video, then, just to get
13 through this. I'm not getting any messages on my screen
14 so I'll just turn off my video.

15 Okay. Is this better? Yes?

16 Okay. I see Madam Chair nodding.

17 So we -- we -- if I could sum up, although
18 NMOGA has had certain data around the feasibility of
19 some of the LDAR provisions since July, it chose to
20 offer it in these spreadsheets just a handful of days
21 ago, after the hearing had started. The other parties
22 don't really have an opportunity to study the data and
23 provide their own analysis of it with just a couple days
24 left in the hearing.

25 My read of 20.1.1, which is your rulemaking

1 procedures, in terms of the duties of the Hearing
2 Officer and also the definition of record proper, say to
3 me that I cannot strike these documents in the sense of
4 directing the Board administrator to reach into the
5 files and remove them.

6 That's not, in my mind, a -- either possible
7 or desirable, particularly because this Board may
8 disagree with my conclusion that these -- this new data
9 should be excluded and not presented today, when we're
10 doing LDAR, on the basis that really no rulemaking
11 petitioner should be surprised by new data toward the
12 end of a hearing, particularly when, you know, in this
13 case the rulemaking petitioner has been so vigorously
14 engaged in negotiating on all fronts really throughout
15 the rulemaking.

16 So it -- my read of your procedural rules is
17 that I will grant the motion insofar as I would like to
18 say to NMOGA you cannot present this surprising data
19 today in the name of surrebuttal.

20 Having said that, again I have to contemplate
21 the possibility that this Board would -- would reach a
22 different conclusion, at which point my suggestion to
23 you would be to allow the other parties, particularly
24 the Department who would be surprised by this new data,
25 an opportunity to actually study it and develop their

1 own answer to it.

2 But that's not going to be possible this week,
3 it's not something they can do overnight, at which point
4 I think you would have to schedule another day of
5 hearing for sometime in the future.

6 Do the Board Members have any questions about
7 that?

8 MR. HISER: Madam Hearing Officer, if we may,
9 we have a lot of questions.

10 Are you excluding all of Mr. Smitherman's
11 testimony or just the two tabular Excel spreadsheets?

12 HEARING OFFICER ORTH: Right now the two
13 spreadsheets, and again to -- what I'm -- what I'm
14 seeking to exclude again is the surprising material, not
15 that portion of Mr. Smitherman's testimony that was
16 based on information that was already included in his
17 direct. So we may need to -- we may need to keep
18 talking about this.

19 Let me ask, though, the Board Members, first,
20 if they have questions.

21 Board Members, questions.

22 CHAIR SUINA: Thank you, Madam Hearing
23 Officer.

24 I did have the opportunity to listen in on
25 some of the discussion before the meeting. So I -- I

1 think I understand, you know, how you are phrasing this.
2 So I'll leave it to some of the other Board Members if
3 they have questions.

4 VICE-CHAIR TRUJILLO DAVIS: I'm going to take
5 the opposite. I came in late on the discussion. So I
6 wasn't really sure what the issue was.

7 Was this testimony that we already heard or
8 that we were going to hear?

9 HEARING OFFICER ORTH: This is NMOGA's LDAR
10 testimony. We were going to devote most of today to
11 LDAR, which is why we were having discussion before
12 public comment today.

13 VICE-CHAIR TRUJILLO DAVIS: Okay. I'm clear
14 on it now. Thank you.

15 HEARING OFFICER ORTH: Um-hum.

16 Other questions?

17 All right. So we can go back to -- to the --
18 Mr. Hiser, if you want to come back on screen, and any
19 other counsel who would like to come back on screen
20 briefly.

21 As I understand it, please correct me if I'm
22 wrong, what I would be excluding specifically would be
23 slides 52 to 56 and the Excel spreadsheets.

24 MS. KATZ: And I believe, Madam Hearing
25 Officer, the Department was ask -- the slides 10 and 11

1 that are associated with those spreadsheets.

2 HEARING OFFICER ORTH: That's right.

3 And I wonder, you know, obviously, about the
4 Department's September 16 final rule proposal following
5 rebuttal testimony, but I think you -- you've explained
6 that.

7 Let's see here. Ms. Fox?

8 MS. FOX: I have nothing more to add. Thank
9 you, Madam Hearing Officer.

10 HEARING OFFICER ORTH: Okay.

11 Mr. Rose?

12 MR. ROSE: Yes. My understanding of what
13 Mr. Hiser was offering were demonstrative exhibits. So
14 they weren't being offered into evidence, in any event.
15 So I don't know that you can necessarily strike them
16 because they're not part of the evidence. I thought
17 your ruling was with respect to the testimony that would
18 be adduced under the -- in respect to those -- those
19 slides.

20 So I think what you're talking about here is
21 excluding Mr. Smitherman from testifying on those issues
22 as opposed to excluding the exhibits. So I just wanted
23 to make it clear that it's -- your ruling on the
24 admissibility of his oral testimony in surrebuttal on
25 those issues.

1 HEARING OFFICER ORTH: Yes. Sorry.

2 Ms. Fox?

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

4 It's my understanding that NMOGA was offering
5 the two spreadsheets as exhibits so those would be
6 excluded from evidence.

7 And I agree with Mr. Rose that what we said in
8 our motion is that with respect to the slides, that they
9 should be excluded. They are demonstrative exhibits so
10 they won't technically come in, but in all associated
11 testimony.

12 And so while Mr. Hiser can make an offer of
13 proof, that doesn't mean he gets to offer all the
14 testimony in support. It's only an offer of proof.

15 HEARING OFFICER ORTH: That's -- that's
16 what -- if I didn't say that clearly, thank you,
17 Ms. Fox.

18 Let's see. I see Ms. Paranhos.

19 MS. PARANHOS: I'm just on the screen just so
20 that I'm here, but I understand what you're saying,
21 Madam Hearing Officer, and I appreciate what your ruling
22 is.

23 MR. HISER: I think, Madam Hearing Officer,
24 that we think that the proposal to exclude the NMOGA
25 model plant, which Mr. Smitherman addresses repeatedly

1 in his direct testimony, is not appropriate, because the
2 Board is entitled to hear the explanation of why NMOGA
3 did that so they can understand the cost context of
4 Mr. Smitherman's testimony.

5 The Department clearly understood, because
6 they devote several pages to the differences in the
7 model plant, what those issues are. And they are, I
8 might say, incremental to what's already in the record,
9 and the model plant data is already in the record as an
10 admitted exhibit for that.

11 So I don't believe that there's any prejudice
12 to the argument about whether there are six, four, seven
13 of a certain component at the model plant to the
14 Department.

15 HEARING OFFICER ORTH: I'll let Ms. Katz speak
16 now. My -- my memory was, though, that all the
17 Department was doing when it addressed the model plant
18 statements from NMOGA was pointing out that NMOGA wasn't
19 supporting those statements with data.

20 Ms. Katz, do I have that wrong?

21 MS. KATZ: Yes. There were two different
22 model plants. There was the CTG model plants, and those
23 were NMOGA's own model plants, and so we're not speaking
24 about CTG model plants. But NMOGA's model plants, we
25 said that there wasn't the data, they didn't show how

1 they got the numbers, and my understanding is that those
2 spreadsheets are -- show that, and that should have been
3 provided as part of their direct testimony.

4 MR. HISER: Very (unintelligible and/or
5 inaudible) Madam Hearing Officer.

6 The EPA's basis in the CTG document for the
7 model plant also is not in the record in that same way,
8 and so in the interest of a level playing field, I think
9 it's perfectly appropriate for there to be a discussion
10 about whether the model plant has six or seven of a
11 certain component and what the emissions impacts of that
12 are. And that's something that's useful for the Board
13 to understand.

14 HEARING OFFICER ORTH: Okay.

15 MS. KATZ: However, EPA -- the information is
16 in EPA's record. So we don't have to go create it
17 ourselves. And that is the problem with NMOGA's model
18 plant, and they are -- they are providing spreadsheets
19 now that show how they got where they did, and that was
20 not obvious or clear from what they had presented in
21 their direct testimony.

22 HEARING OFFICER ORTH: All right. Thank you.

23 Ms. Fox?

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

25 You know, as I'm looking through the other

1 demonstrative slides that we moved to exclude, I am
2 seeing that some of the data in some of the other slides
3 besides the two that Ms. Katz referenced is data from
4 the spreadsheets that are excluded.

5 And I'm not able to go through all these
6 slides right now very quickly, although I can later
7 during a break, to identify those which reflect data in
8 the spreadsheets that are being excluded, and so those
9 slides should be -- at least the testimony around those
10 slides should be excluded, as well.

11 MR. HISER: Madam Hearing Officer --

12 HEARING OFFICER ORTH: All right.

13 MR. HISER: -- those spreadsheets are merely
14 the same thing as what's in Mr. Smitherman's direct
15 testimony, and therefore, the fact that they may also be
16 in the spreadsheet doesn't change the fact they've
17 already been testified to and admitted.

18 HEARING OFFICER ORTH: All right. Thank you.

19 It seems that we may need further discussion
20 as the -- as the testimony is offered. And I am not
21 sure we're going to be able to do any more as part of a
22 general discussion before we actually get to
23 Mr. Smitherman and the slides.

24 So, Mr. Hiser, are there other -- other things
25 we can do before we actually get to the testimony?

1 MR. HISER: I guess, Madam Hearing Officer,
2 I'm not sure what other things you're asking us to do.

3 HEARING OFFICER ORTH: So when you put on
4 Mr. Smitherman on -- on LDAR, I would like to navigate a
5 distinction here between testimony he would be giving
6 that was based on data already in the record and
7 testimony that he might have given based on data that
8 was presented only on September 23rd.

9 When we get to the testimony related to the
10 spreadsheets and the other new information from
11 September 23rd, I'd like you not to go through
12 Mr. Smitherman's testimony, but instead to offer a
13 description of what he would be testifying to were it
14 not excluded on the basis of surprise.

15 MR. HISER: I guess, Madam Hearing Officer,
16 subject to, I think, our ability to request the Board to
17 review this decision to essentially exclude much of the
18 cost information from industry about one of the
19 significant provisions of this rule, which is our
20 understanding of what you're attempting to do.

21 HEARING OFFICER ORTH: Yes. Because my -- I
22 understand completely the Board is the decision-maker in
23 this matter, but I think it's important that the Board
24 understand that if, in fact, they're to take this new
25 and surprising data into account, that in fairness to

1 the petitioner and the other participants in this
2 proceeding, they would have to schedule another day of
3 hearing at a time that allows for mitigation of the
4 surprise.

5 So it's not something they can do by Friday.

6 MR. HISER: So, Madam Hearing Officer, one
7 last question before you move on.

8 My understanding is that we are to use the
9 information in Mr. Smitherman's testimony as it was in
10 his direct. We may draw reasonable extensions from that
11 information, because otherwise you're also saying that
12 NMOGA can only repeat what it said previously without
13 any opportunity for surrebuttal.

14 Is that your intent?

15 HEARING OFFICER ORTH: No. My intent is to
16 carve off that surrebuttal which is based on surprising
17 information that should have been provided earlier in
18 this process.

19 MR. HISER: Subject to that understanding, and
20 understanding that we will certainly be challenging that
21 characterization before the Board, we will do that, and
22 where we believe appropriate, we'll be happy to offer
23 proof at that time.

24 HEARING OFFICER ORTH: Thank you very much.

25 Ms. Fox?

1 MS. FOX: Madam Hearing Officer, sorry to
2 prolong this, but thank you.

3 So I think in the interest of efficiency -- I
4 think it would be helpful if we did identify the
5 specific slides in NMOGA's proffered surrebuttal that
6 reflect data in the spreadsheets that have been
7 excluded, and then I think that we won't get into
8 arguments during Mr. Smitherman's presentation whether a
9 particular slide is allowed in or not or whether
10 particular testimony on that slide is allowed in or not.

11 And during -- during a break, you know, we
12 can -- we can endeavor to identify those slides that
13 reflect information in the spreadsheets that have been
14 excluded.

15 HEARING OFFICER ORTH: Right. Thank you very
16 much.

17 As I understand it, we're going to turn, then,
18 from this discussion. We've had public comment. We're
19 going to go to Ms. Devore of the National Park Service.

20 I see Ms. Devore.

21 Thank you for coming onto the screen,
22 Ms. Devore.

23 I don't know if I've sworn you before.

24 MS. DEVORE: You swore me in when Mr. Vimont
25 gave his testimony last Monday, but I --

1 HEARING OFFICER ORTH: All right.

2 MS. DEVORE: -- if you feel more comfortable.

3 HEARING OFFICER ORTH: No, no. That's fine.

4 You're still under oath.

5 LISA DEVORE

6 (Relating to Topic Orders 1, 2 and 24)

7 having been first duly sworn or affirmed, was

8 examined and testified as follows:

9 DIRECT TESTIMONY

10 HEARING OFFICER ORTH: Please proceed with
11 your presentation.

12 Do you need screen sharing?

13 MS. DEVORE: Yes, I do. Yes.

14 HEARING OFFICER ORTH: All right.

15 THE REPORTER: Excuse me one second. I'm
16 having technical issues.

17 Okay. Thanks. I don't know why that keeps
18 happening.

19 MS. DEVORE: Before I share my screen, I'm
20 going to be referring in this rebuttal and surrebuttal
21 to the Park Service --

22 THE REPORTER: Excuse me one second. Sorry
23 about that. It happened again.

24 HEARING OFFICER ORTH: Cheryl, you might want
25 to turn off your video.

1 THE REPORTER: No. It's in my software.

2 HEARING OFFICER ORTH: Oh, okay.

3 THE REPORTER: Yeah. Can we just take two
4 minutes and let me restart it?

5 HEARING OFFICER ORTH: Certainly.

6 THE REPORTER: Thank you. Sorry.

7 (Proceedings in brief recess.)

8 HEARING OFFICER ORTH: Cheryl, are you back,
9 or no?

10 THE REPORTER: Yes, I am.

11 HEARING OFFICER ORTH: You are. Okay.

12 So I was just responding to a question from
13 Member Garcia about posthearing submittals.

14 Let's see. Mr. Rose, do you have something to
15 offer?

16 MR. ROSE: Yes. And that was in response to
17 Board Member Garcia's comments.

18 My -- while this can be raised in posthearing
19 submittals, my understanding under the Board's rules is
20 they can review your determination on admissibility of
21 the evidence even before posthearing submittals are due,
22 depending on if NMOGA intends to raise them directly to
23 the Board. So I -- I mean, given the nature of this,
24 they may be raised even before we get to posthearing
25 submittals.

1 So I wanted to make sure that the Board Member
2 had a clear picture of this. I don't know what advice
3 the Board's counsel will give them as to how they should
4 address this issue. But I think that's something
5 between the Board and its counsel.

6 HEARING OFFICER ORTH: I agree with you,
7 Mr. Rose.

8 Thank you, Member Garcia.

9 Let's see here.

10 Oh, I have a question from Member --
11 Vice-Chair Trujillo Davis. If you'd like to put it on
12 the record, go ahead, Vice-Chair.

13 VICE-CHAIR TRUJILLO DAVIS: Yes. I was just
14 kind of following Member Garcia's question here.

15 Do -- does the Board need to make a decision?
16 Do we need to vote on a decision here?

17 I'm just kind of curious about our -- our next
18 steps.

19 HEARING OFFICER ORTH: So my suggestion would
20 be to allow your counsel, who I believe has been on the
21 platform for the entirety of the hearing, to consider
22 this question and to advise the Board. I'm not going to
23 ask her to jump onto the discussion onto the record
24 right -- right this second. She may want to offer her
25 counsel to you privately, which is certainly an option

1 for her.

2 So when we next break, I will reach out to
3 your counsel and come back with an answer, or she will
4 come back with an answer, one way or another.

5 VICE-CHAIR TRUJILLO DAVIS: Okay. Thank you
6 very much.

7 HEARING OFFICER ORTH: Sure.

8 MR. HISER: I just wanted to reserve my
9 ability to make a formal motion if appropriate.

10 HEARING OFFICER ORTH: All right. Thank you
11 very much, Mr. Hiser.

12 Let's see. Ms. Devore, we are back to you.

13 If you would spell your name for the
14 transcript, please, and then proceed with your
15 statement.

16 MS. DEVORE: Okay. So Lisa, standard
17 spelling, and then Devore, D-E-V-as-in-Victor-O-R-E.

18 And I was about to say before technical issues
19 and logistical conversation that I will be referring to
20 the National Park Service's exhibits from rebuttal, so
21 Exhibits B, C, D and E, as well as our notice of
22 rebuttal statement. And I may also need to pull up some
23 of the -- let's see. It's the Department's Rebuttal
24 Exhibit 23, just depending on the conversation and
25 questions.

1 So with that, I am going to go ahead -- I'm
2 going to formally introduce myself. So I'm Lisa Devore
3 with the National Park Service. I am the Intermountain
4 Region's air quality specialist. The Intermountain
5 Region spans from Texas to Montana. So I manage the
6 states within those regions for air quality issues.

7 I have over 15 years of experience in the air
8 quality -- in the air pollution control industry. I
9 came from the Department -- the Colorado Department of
10 Public Health and Environment, where I worked on policy
11 issues, rulemakings and engineering analyses. So I held
12 multiple positions with that department, including
13 engineer, policy planner.

14 I am a mother. I have a bachelor of science
15 in environmental engineering and a master of science in
16 civil engineering from the University of Colorado at
17 Boulder, and I hold my professional engineering license
18 in the State of Colorado.

19 I also worked on the recent rulemaking in
20 Colorado for engines 1,000 horsepower and above.

21 So with that, I'm going to share my screen.

22 Can we all see -- it should say The data
23 support the need for this rule?

24 Anybody --

25 VICE-CHAIR TRUJILLO DAVIS: Yes. We see it.

1 MS. DEVORE: Okay. I just want to make sure
2 before I go ahead. So I'm jumping in.

3 So Mr. Vimont last Monday presented some of
4 this presentation, and we are now continuing this for
5 the engines part of this conversation for rebuttal and
6 surrebuttal.

7 So just going back to -- I'm just going to
8 summarize this slide real quick, just to have everybody
9 remember how we discussed Carlsbad Caverns and how the
10 air quality at that park frequently exceeds the
11 standards for ozone.

12 The air quality there is actually on the order
13 of cities like Santiago, Chile and Mexico City, Mexico.
14 And I think those are some -- something that's important
15 to note for all of us to remember when we're having
16 these conversations about all these aspects of this
17 rule, what's at stake here.

18 So then the information presented highlights
19 the need for both NOx and VOC reductions. And at the
20 time of the rebuttal, we had thought that the proposed
21 engine and turbine standards were going to be what --
22 like 1,000 horsepower and up for engines, and then --
23 and there was only one category for that, and they were
24 lower than what NMED came out with in their rebuttal
25 statement. So I'm going to talk a little bit about

1 that. And that's why I may need to pull up their
2 tables.

3 And then the turbine standards also
4 subsequently changed. So the ones I'm going to show you
5 here are the outdated, but I can still refer to it in
6 surrebuttal where we're at now.

7 So the ones that were proposed have been
8 similar, and there's been a lot of conversation about
9 the similarities and some of the dissimilarities of the
10 standards in other states, including Texas and
11 Pennsylvania. There's also standards that are more
12 stringent. So we have standards in California that are
13 more stringent. Some of the standards in Texas are more
14 stringent for nonattainment areas.

15 I know we're treading a line here where we're
16 trying to get -- you know, New Mexico is trying to get
17 ahead of being nonattainment, but it's important to be
18 thoughtful about, you know, coming back again and again
19 and what kind of standards you may be looking at and
20 what's also possible.

21 So, you know, we have Colorado just to the
22 north. From a lot of the information from New Mexico,
23 there is a lot of similarities between Colorado's recent
24 rule and what's being proposed today. However, there
25 are a couple of stark differences.

1 All right. So -- I don't know why I cannot
2 get rid of this. Okay. There we go.

3 So, you know, based on the example from
4 Pennsylvania's requirement, I'm not going to really talk
5 a lot about this, because we're in a different place
6 now, but, you know, rich-burn engines is -- it's easier
7 to control rich-burn engines than it is to control
8 lean-burn engines. I'll completely agree to that fact.
9 And so, you know, some of the lower limits for the
10 rich-burn engines are appropriate.

11 One thing I would like to note, and kind of
12 combining rebuttal and surrebuttal here, but we don't --
13 I would strongly encourage New Mexico to come back and
14 look at standards for engines lower than
15 1,000 horsepower with the exception of the
16 500 horsepower that remains on the books for the future.
17 So I think at this point, you know, there's so much
18 going on with this hearing, just sorting out some of the
19 issues with the engines that are on the books for over
20 1,000 horsepower, and we do not have any concerns with
21 the 500 rich -- or 500 rich-burn. It's really for more
22 of the specific categories.

23 So for lean-burns, we do assert that it's
24 possible to control again under 1,000 horsepower, and we
25 are not bringing a lot of this back up at this point.

1 We just want to reassert that New Mexico should go back
2 and visit these in the future. I would note that there
3 were plans for Colorado to go back and visit smaller
4 engines. So I encourage New Mexico to keep an eye on
5 that rulemaking whenever that occurs. It should be
6 fairly soon.

7 And as far as turbines go, we're also not
8 going to talk a lot about this today. Unfortunately,
9 the staff member that was more familiar with this topic
10 is -- had surgery on Monday and can't be here, but we
11 still encourage New Mexico to look at revisiting
12 turbines in the future.

13 Right now a lot of the limits are -- do --
14 like as NMOGA -- as some of their exhibits, you know,
15 they've been back and forth, but is New Mexico trying to
16 just duplicate the requirements of Quad K, or are you
17 trying to go further? So I think that's important to
18 think about.

19 And some other notes that I want to make is
20 that the removal -- and now I'm going to move to the
21 table so we can -- we can look at that. Zoom in a
22 little bit.

23 But -- so a couple of notes here is that -- so
24 the removal of "or installed" -- so for these areas that
25 are subject to this rule, this means that the engines

1 from other places can still be moved into these areas,
2 and we'll be looking at -- they won't be subject to
3 these rules. And so I think it's that -- the removal of
4 this language is a really key point.

5 You know, in Colorado we've been working on
6 this rule -- or on a similar rule, tried to be really
7 thoughtful about relocation and engines not being moved
8 around into these areas that have these ozone issues to
9 become dumping grounds for old engines. And those can
10 come from out of state, or they can come from other
11 areas in New Mexico and then be subject to this rule.
12 So I think that's really something that we feel strongly
13 should be pulled back into the rule and not be removed.

14 And then the second point I'd like to make is
15 that this 2 grams per horsepower-hour here for
16 four-stroke lean-burn engines -- so in Colorado the
17 standard for all lean-burn engines is 1.2 grams per
18 horsepower-hour, and so I think that should be the
19 ceiling. And right now this number is higher. We don't
20 have any opinion on the carbon monoxide standard or
21 the -- the VOC standard.

22 So those are -- those match this -- this table
23 doesn't match Colorado, but some of the proposed numbers
24 match Colorado. So the 2 grams per horsepower-hour for
25 CO matches Colorado. You have to have a balance between

1 NOx and CO. So I will admit that I think that's
2 appropriate, just because we're really trying to get at
3 NOx here.

4 And there does need to be a limit on CO so the
5 operators are applying their controls properly and we're
6 not seeing levels of CO shift into high realms, but at
7 the same time we don't want it so low that it's not --
8 it's not technically feasible for operators to work
9 their controls properly.

10 So those are the comments that I had. And
11 with that -- let me see -- let me make sure I didn't
12 miss anything here.

13 You know, I just want to really re-emphasize
14 that we think it's really important those couple of
15 things be strongly reconsidered in the final rule by the
16 Board. So again the addition -- "installed" needs to
17 come back, and it actually applies for engines and for
18 turbines in this case. So, you know, if it isn't taken
19 out, then -- sorry. If it isn't added back in, then you
20 can move those type of equipment into these areas and
21 they won't be subject to the rule. So I think that's a
22 really important aspect to think about.

23 We just want to also point out that the
24 modeling was -- originally assumed, you know, much
25 greater reductions, and, you know, the revised standard

1 is much lower. And we need to reduce both pollutants,
2 so NOx and VOCs, if we want to see is the ozone levels
3 also be reduced in Carlsbad and in other areas of New
4 Mexico that are close to the ozone standards.

5 So with that, I will take questions.

6 And I will stop sharing my screen if I can
7 figure out what's going on here.

8 HEARING OFFICER ORTH: Thank you, Ms. Devore.

9 If you are a party, counsel and have questions
10 of Ms. Devore, please turn on your camera.

11 I see Mr. Rose.

12 Mr. Rose?

13 MR. ROSE: Again, yes, Madam Hearing Officer.
14 I just need some clarification from Ms. Devore, if
15 that's possible.

16 CROSS-EXAMINATION

17 BY MR. ROSE:

18 Q. My understanding is you are testifying on
19 behalf of the Park Service; is that correct?

20 A. Yes. The National Park Service.

21 Q. And I'm just wondering since I didn't see an
22 attorney enter an appearance in this matter on behalf of
23 the Park Service, has your testimony been vetted with
24 management of the Park Service before it's been offered,
25 and does it represent the official position of the Park

1 Service?

2 A. We did report out that we would be testifying
3 in this hearing to National Park Service management.
4 Yes. And we have -- we have coordinated with -- so for
5 the Park Service we don't call them lawyers per se.
6 They're solicitors that help with the Department of the
7 Interior, and we have coordinated with them, as well.

8 Q. Okay. And they have an office in Albuquerque
9 so -- and there are solicitors here. I was just curious
10 as to -- as to whether it was your testimony or had been
11 vetted from -- through management and been approved as
12 the official position of the Park Service.

13 I have no further questions.

14 HEARING OFFICER ORTH: All right. Thank you.

15 I see Mr. Swift.

16 Mr. Swift?

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

18 CROSS-EXAMINATION

19 BY MR. SWIFT:

20 Q. Ms. Devore, my name is Whit Swift. I am
21 counsel for the Gas Compressor Association.

22 And I just had one again at least starting off
23 more clarifying.

24 You discussed that -- and in your Exhibit B
25 you had included some recommended standards for those

1 smaller size category engines, that is generally under
2 1,000 horsepower, but then in your discussion in your
3 testimony that you've just given us, you've represented
4 those as -- as, I guess, things that you want New Mexico
5 to consider in a future proceeding, but you're not
6 necessarily recommending them as part of this particular
7 rulemaking; is that correct?

8 A. Yes. So we have changed our position on that
9 fact.

10 Q. Okay. All right. Well, with that
11 clarification, I did have some questions for you about
12 those smaller engine source -- or size categories, but I
13 will not -- in the interest of keeping you -- keeping
14 things moving along, I won't drag you through them, and
15 I'll keep things moving here with the hearing.

16 Thank you very much for your testimony.

17 HEARING OFFICER ORTH: Thank you.

18 Mr. Hiser?

19 MR. HISER: Yes.

20 CROSS-EXAMINATION

21 BY MR. HISER:

22 Q. Thank you, Ms. Devore.

23 I'm Eric Hiser, and I represent the New Mexico
24 Oil and Gas Association.

25 Appreciate your appearing here today. I know

1 that folks from the Park Service are quite busy.

2 You expressed some concern about the
3 installation -- "or installed" and how that was removed
4 from, I believe, Table 1 and Table 2 and a concern that
5 that might allow other turbines or engines to be brought
6 into an area and not be subject to the rules; is that
7 correct.

8 A. Yes.

9 Q. And wouldn't those units still regardless of
10 where they were first installed -- still have a
11 construction or reconstruction date on them?

12 A. They would. But -- if so they're brought in
13 from out of state, then it becomes more difficult for
14 the state to figure out if they're going to be subject
15 to the rule or not.

16 Q. Yes.

17 But isn't it the obligation of the owner or
18 operator of that unit to provide that information to the
19 state as part of its either permitting or notice
20 provisions?

21 A. It would be.

22 Q. Okay. Thank you.

23 But if that date is available, then that
24 would -- that would answer your concern about making
25 sure that they were appropriate classified as between

1 Tables 1 and 2, would it not?

2 A. But -- I think, yeah.

3 MR. HISER: Thank you.

4 I don't have any other questions. Appreciate
5 it.

6 HEARING OFFICER ORTH: Okay. Thank you.

7 I think I saw Mr. Baake briefly.

8 Are there any other questions from -- oh,
9 there you are, Mr. Baake.

10 MR. BAAKE: Yes.

11 HEARING OFFICER ORTH: Go ahead.

12 MR. BAAKE: I just had two brief questions.

13 If I could have sharing privileges.

14 CROSS-EXAMINATION

15 BY MR. BAAKE:

16 Q. Let's see. I just wanted to look at the
17 Colorado language. Let's see if it works.

18 I don't know if that's -- is this -- can you
19 see the Colorado language there?

20 A. Yes.

21 Q. So I appreciate your testimony, Ms. Devore. I
22 just wanted to make sure I understood two things.

23 You mentioned you worked on this Colorado
24 rule, right?

25 A. Yes.

1 Q. That was last year?

2 A. Last year. It was really three years long,
3 but yes. We ended up in rulemaking last year.

4 (Simultaneous discussion.)

5 Q. And I wanted to ask first about this issue
6 about the installation date. So -- and I'm not familiar
7 with the rule. I didn't work on it.

8 But as I -- it seems to me that Colorado does
9 make it based on the installation data that it --
10 you're -- that a newly installed engine is considered
11 subject to the standards; is that correct?

12 A. Yes.

13 Q. So they use the word "placed in service." So
14 it -- in service date. Okay. So I think that's
15 helpful.

16 And the second, I just wanted to make sure I
17 understood, too.

18 So with this -- these four-stroke lean-burn
19 engines, I think that I understood you to say that New
20 Mexico had proposed a standard of 2 grams
21 horsepower-hour; is that correct?

22 A. For the class size, yes. For one of the class
23 sizes, um-hum.

24 Q. And Colorado has it at 1.2?

25 A. I feel like that should be the ceiling, if not

1 lower, especially when --

2 Q. Okay.

3 A. -- a need to have a -- you know, room for
4 Alternative Compliance Plans, which is the case for both
5 Colorado and New Mexico's rules.

6 Q. Okay. That's -- that's very helpful. So we
7 should probably be taking a look at what they did in
8 Colorado.

9 All right. Thank you so much, Ms. Devore.

10 MR. ROSE: Madam Hearing Officer, I just --

11 HEARING OFFICER ORTH: Yes, Mr. Rose.

12 MR. ROSE: Is the exhibit that Mr. Baake
13 showed her -- is that in the record somewhere?

14 MS. DEVORE: That's one of New Mexico's
15 exhibits.

16 MR. ROSE: Okay.

17 MS. DEVORE: Look at their list to see --
18 (Simultaneous discussion.)

19 MR. ROSE: -- record is clear what we're
20 referring to here.

21 (Simultaneous discussion.)

22 MR. BAAKE: I just pulled this up. This is
23 the --

24 THE REPORTER: Excuse me. One at a time,
25 please.

1 HEARING OFFICER ORTH: One at a time.

2 MR. ROSE: The Hearing -- the court reporter
3 is -- seems to be having problems discerning who is
4 saying what to whom.

5 So that was the only question, is to where in
6 the record is it so that the record is clear what you're
7 talking about, because the written transcript only
8 refers to the screen, and the Board won't have in front
9 of them what you're referring to.

10 MR. BAAKE: Yeah. Thank you, Mr. Rose.
11 That's a -- that's a good point for the record.

12 So I had -- I had just pulled up the 5
13 Colorado Code Regulations Section 1001-9EI. I pulled it
14 up online, but I think that it's -- I don't think
15 there's any dispute that that's what the regulation is.

16 MR. ROSE: And I assume that's Reg 7 or --
17 it's referred to, I think, throughout the hearing as
18 Colorado Reg 7? Is that what -- or is this another
19 Colorado reg?

20 MS. DEVORE: It's Reg 7.

21 MR. ROSE: Okay.

22 That's all I needed. Thank you.

23 MR. BAAKE: And I just put the code section in
24 the -- in the chat if any -- thank you.

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

1 Chat is only enabled to the host.

2 If you would, I'll read it. It's 5 Colorado

3 Code Regs Section 1001-9-E- -- I imagine that's an I.

4 (Simultaneous discussion.)

5 HEARING OFFICER ORTH: Oh, it's a --

6 MR. ROSE: Madam Hearing Officer, the chat's
7 been enabled for everyone. So we can all see it.

8 HEARING OFFICER ORTH: Okay. Great. Thank
9 you.

10 Anything further from any counsel or parties?

11 No?

12 I'm going to turn to questions from the Board.

13 While I'm doing that, if you're on the
14 platform as an attendee and would have a question,
15 please reach out in the chat.

16 EXAMINATION

17 BY THE BOARD:

18 HEARING OFFICER ORTH: Madam Chair, do you
19 have questions of Ms. Devore?

20 CHAIR SUINA: Yes. Thank you, Madam Hearing
21 Officer. I just have a few follow-up for Ms. Devore.

22 Thank you again for your testimony,
23 Ms. Devore. Appreciate it.

24 How many national parks are also in Colorado?

25 MS. DEVORE: There are four national parks in

1 Colorado.

2 CHAIR SUINA: And can you just tell -- share
3 with us the general location of those parks? Like is it
4 in the north? South?

5 MS. DEVORE: So there's Rocky Mountain
6 National Park, which is just to the northwest of Denver.
7 And then there's Black Canyon of the Gunnison, which is
8 just to the southeast -- southeast of Grand Junction, in
9 the middle of the state. And then there's the Great
10 Sand Dunes National Park and Preserve, which is just to
11 the west of Pueblo, so it's into -- into like kind of
12 southwest -- south -- mid-portion of the state. And
13 then Mesa Verde, which has actually been discussed a few
14 times in this rulemaking, which is in the southwest
15 portion of Colorado, on the border of New Mexico.

16 CHAIR SUINA: Thank you for that, Ms. Devore.
17 And I just ask that so I can get an idea as to where the
18 general location of the parks are in Colorado.

19 So in the Colorado rulemaking, did the
20 National Park Service also have similar stances as, I
21 think, Mr. Rose had mentioned from the National Park
22 Service perspective regarding more stringent or stricter
23 rules for Colorado?

24 MS. DEVORE: So the National Park Service
25 participated in the stakeholder process for Colorado's

1 engine rulemaking. They ultimately did not file to be a
2 party, I think because of some of the differences in the
3 language and the way that that rule was approached.
4 There were similar comments about lower standards for
5 future rulemakings. So Colorado at the time, the way
6 things work is the engines with lower horsepower weren't
7 considered as part of the scope of that rulemaking.

8 So if something's not part of the scope -- and
9 other parties did this, too, where, oh, we have comments
10 about this, and it's like, well, we're only looking at
11 this scope, and so we've -- Colorado at the time said,
12 okay, we'll think about that for the future. So it's
13 similar to what I echoed today for New Mexico.

14 CHAIR SUINA: Thank you for that, Ms. Devore,
15 that clarification.

16 So in some of the national parks in Colorado,
17 are there similar concerns in terms of air quality
18 because of oil and gas activities, as well?

19 MS. DEVORE: So for Rocky Mountain National
20 Park -- and then I should also mention there are two
21 national monuments in Colorado. I apologize, I didn't
22 say that a little earlier here, the monuments and the
23 park.

24 So Dinosaur National Monument is in the
25 northwest corner of Colorado, and they're very close to

1 a large oil and gas basin, as well. And the Colorado
2 National Monument, which is pretty much in Grand
3 Junction, also faces some similar challenges. So we are
4 seeing -- and Mesa Verde is impact -- is impacted by oil
5 and gas from that -- from the basin next to it, as well.

6 So we are facing a lot of these dilemmas,
7 albeit on different scales, but we do see them in other
8 parks in Colorado.

9 CHAIR SUINA: Okay. Thank you.

10 And then so just in terms of the National
11 Park's position on this, as Mr. Rose mentioned earlier,
12 is -- so as -- as ongoing activities or, I guess,
13 initiatives for the National Park Service, is there
14 going to be additional -- and maybe -- that's maybe too
15 far broad, but let me -- let me rephrase that.

16 As Carlsbad Cavern is -- I think was a part of
17 a lot of the testimony earlier on, but, as well, I think
18 you referred to it in your testimony this morning as the
19 national park, that you've been -- you -- the National
20 Park Service has some additional data on -- do you
21 foresee that this rule would help the National Park
22 Service's air quality within the Carlsbad area, Carlsbad
23 Caverns area?

24 MS. DEVORE: All -- all pollution reductions
25 for NOx and VOCs will improve -- will improve ozone. You

1 know, I think that more needs to be done. You know,
2 there's like a lot of different source sectors that need
3 to be examined. But oil and gas is a part of that pie,
4 and it will improve ozone if this rule is --

5 CHAIR SUINA: Okay.

6 MS. DEVORE: -- comes into effect.

7 CHAIR SUINA: Okay. Thank you, Ms. Devore.
8 That's all I have for now.

9 HEARING OFFICER ORTH: Thank you.

10 Vice-Chair Trujillo Davis?

11 VICE-CHAIR TRUJILLO DAVIS: Yes. I only have
12 a couple questions.

13 Thank you, Ms. Devore, for taking time to chat
14 with us today.

15 Is there a park-specific -- or National
16 Park-specific initiative to reduce ozone in all national
17 parks?

18 MS. DEVORE: Not a specific initiative, but
19 the Air Resources Division of the National Park Service
20 works on air quality issues for the Park Service, and
21 that division, which is a national office that I work
22 with, believes that ozone and -- you know, so working on
23 air quality issues that impact our parks is a priority
24 for that division.

25 VICE-CHAIR TRUJILLO DAVIS: So outside of

1 participating in rulemaking in various states, what
2 other activities has the National Park taken up to
3 reduce ozone in their parks?

4 MS. DEVORE: So one example would be for Rocky
5 Mountain National Park, and actually there is a lot of
6 parks throughout the nation. I just couldn't speak to
7 those as specifically. But the Park Service has worked
8 hard to do things like Clean Air Fleets, and there
9 are -- a lot of parks have Green Teams to reduce impacts
10 from within the parks on ozone and for -- you know,
11 off -- like we've heard a lot during this hearing, so
12 air pollution spans oftentimes multiple issues, you
13 know. So you may see like greenhouse gas reductions and
14 also improve ozone.

15 In Rocky Mountain National Park we have issues
16 with nitrogen deposition which comes from ammonia and
17 from nitrogen oxides. So we try to look at that
18 holistically.

19 And then parks oftentimes -- our larger parks
20 undergo the green opportunities to reduce their impacts
21 to said issues such as ozone.

22 VICE-CHAIR TRUJILLO DAVIS: So would you say
23 that participating in rulemaking is probably one of your
24 biggest initiatives to reduce ozone?

25 MS. DEVORE: I think it -- yes, because

1 oftentimes, you know, the parks don't -- aren't the
2 significant contributors to the ozone or whatever issue
3 may be impacting that park. So we try to participate in
4 hearings.

5 Another example would be for regional haze,
6 where we are participating across the US, that's
7 stipulated in that rule for, you know, states when
8 they're working on their plans about which sources
9 contribute to regional haze, which is basically
10 visibility at the parks.

11 VICE-CHAIR TRUJILLO DAVIS: Okay.

12 And the National Park Service is part of the
13 Department of Interior; is that correct?

14 MS. DEVORE: (Nods head.)

15 VICE-CHAIR TRUJILLO DAVIS: And BLM is also
16 part of that, as well?

17 MS. DEVORE: (Nods head.)

18 VICE-CHAIR TRUJILLO DAVIS: Okay. I just
19 want -- was trying to understand that structure.

20 So thank you. I don't have any more
21 questions.

22 MS. DEVORE: Okay. No problem. Thank you.

23 HEARING OFFICER ORTH: Thank you.

24 Member Cates?

25 Member Bitzer?

1 MEMBER BITZER: Yeah.

2 Thank you for your testimony.

3 I think it was counsel, Mr. Rose, who had
4 asked if your presentation was the official position of
5 the Park Service.

6 And was that a yes answer, that you gave?

7 MS. DEVORE: Yes.

8 MEMBER BITZER: That's all I have. Thank you.

9 MS. DEVORE: Okay. Thank you.

10 HEARING OFFICER ORTH: Okay. Thank you.

11 Member Garcia?

12 MEMBER GARCIA: Yes. Thank you.

13 And thank you for being with us today,
14 Ms. Devore.

15 You made a statement in the very beginning
16 which really struck me, and I want to make sure I got it
17 correctly.

18 Did I hear you say that the air quality around
19 Carlsbad National Caverns was on the order of the air
20 quality in Santiago, Chile and Mexico City? Did I hear
21 that correctly?

22 MS. DEVORE: Yes.

23 MEMBER GARCIA: Wow. I travel to Mexico City
24 fairly often, and it's pretty horrible. So --

25 MS. DEVORE: Yeah.

1 MEMBER GARCIA: -- that's -- that's quite a
2 statement.

3 Do you mean in terms of a particular
4 constituent or just general smog?

5 MS. DEVORE: So in terms of ozone. So we're
6 seeing the frequency of the elevated ozone levels in
7 Carlsbad. It's -- it's bad as those other two cities
8 that you just mentioned, in terms of like -- in VOC
9 levels.

10 MEMBER GARCIA: Thank you.

11 MS. DEVORE: Um-hum.

12 HEARING OFFICER ORTH: Member Honker?

13 MEMBER HONKER: Thanks for your testimony,
14 Ms. Devore.

15 I have no questions.

16 HEARING OFFICER ORTH: All right. Thank you.

17 Ms. Devore, is there anything else at all you
18 would add based on the questions you've been asked by
19 the parties and the Board?

20 MS. DEVORE: I think the only other thing I'd
21 add is that the -- so the counselor -- Board Member
22 Davis' question about how the Park Service participates.
23 I did neglect to mention that we also participate in
24 what's called Prevention of Significant Deterioration
25 reviews. So that's when large facilities are built

1 within a certain distance from national parks. We do
2 weigh in on those permitting processes.

3 So -- and then we also work on what's called
4 National Environmental Protection -- or Policy Act, so
5 when we see activities within a certain distance of
6 national parks. And this can range from oil and gas
7 leases to mining leases, are a couple of examples.
8 That -- that rule is very broad. For example, there's a
9 highway near one of our parks in Arizona, and we give
10 input on to -- into those processes, as well.

11 Just for additional context from other things
12 that we work on with air quality priorities.

13 HEARING OFFICER ORTH: Thank you.

14 Vice-Chair Trujillo Davis, anything further
15 based on that?

16 VICE-CHAIR TRUJILLO DAVIS: No.

17 Thank you for the additional information.

18 HEARING OFFICER ORTH: Thank you.

19 Thank you very much, Ms. Devore.

20 So let's see. The two parties I remember with
21 rebuttal or surrebuttal to the National Park Service was
22 the Department and NMOGA.

23 I will certainly give you the choice,
24 Mr. Hiser and Ms. Katz, to do this later, if you'd like
25 to leap into LDAR sooner rather than later, or you can

1 do it now.

2 MR. HISER: I don't think that we have very
3 much time, Madam Hearing Officer, on this. I don't know
4 about Ms. Katz.

5 HEARING OFFICER ORTH: Okay.

6 Ms. Katz? Let's see.

7 MS. KATZ: I -- I believe our presentation
8 would be very short on this topic.

9 HEARING OFFICER ORTH: Okay. So we can
10 certainly go ahead and do that.

11 Mr. Rose, I see you on screen.

12 MR. ROSE: Yes. We had rebuttal testimony in
13 response to the Park Service, as well. We've reviewed
14 that and are withdrawing some of that rebuttal
15 testimony, which we'll have revised, and that's
16 Mr. Blewitt's rebuttal testimony, addressed the Park
17 Service proposal, and we'll be filing revised rebuttal
18 testimony withdrawing some of his comments on the Park
19 Service proposal. Hopefully if we get a break, doing it
20 during the break here today.

21 HEARING OFFICER ORTH: All right. Thank you
22 for that.

23 So do I take it, Ms. Katz, that you'd like to
24 do that rebuttal now?

25 MR. BAAKE: Madam --

1 MS. KATZ: Yes. We can --

2 HEARING OFFICER ORTH: I'm sorry.

3 (Simultaneous discussion.)

4 MR. BAAKE: Yes. This is David Baake.

5 I wanted to flag. I believe we had mentioned
6 that we did want to put on a -- I guess it's a
7 surrebuttal witness to the changes that were made in
8 rebuttal version of the NMED. The reason -- it's not
9 going to take very long, but our witness is not
10 available today. He would need to -- it's Dr. Daniel
11 Orozco, I believe you had mentioned. And he would
12 testify tomorrow.

13 HEARING OFFICER ORTH: That's fine. That's
14 fine. I'll make a note to loop back to Mr. Orozco.

15 So, Ms. Katz --

16 (Simultaneous discussion.)

17 MR. HISER: -- did come, Madam Hearing
18 Officer, we prefer to wait until it's all over so that
19 we can respond to it.

20 HEARING OFFICER ORTH: All right. Thank you.

21 Ms. Katz?

22 MS. KATZ: I guess that's probably -- yeah.
23 We should probably wait, as well, then.

24 HEARING OFFICER ORTH: All right. Great.

25 So let me see if Ms. Soloria would like to

1 join us for a discussion and let us know how she would
2 prefer to advise the Board.

3 Ms. Soloria, I see you on the screen.

4 MS. SOLORIA: Hi. Good morning, Madam Hearing
5 Officer and Board Members.

6 As Madam Hearing Officer mentioned earlier,
7 I -- while I have not been on screen, I have been here
8 present throughout the proceedings, and I did appreciate
9 the Board's inquiry about how we were going to handle
10 her recent ruling regarding potentially -- well,
11 exclude -- her ruling was to exclude certain evidence
12 proffered by NMOGA on surrebuttal on the basis of unfair
13 surprise to the other parties.

14 My advice at present, to avoid essentially
15 derailing the presentation of testimony for a mini
16 hearing on the legal propriety of that exclusion, was to
17 proceed as the Hearing Officer suggested, where the
18 NMOGA would proffer on the record what has a rule --
19 been ruled to be excluded. So all of that is going to
20 go onto the record with essentially the caveat that it's
21 not admissible at this point.

22 I think while it was suggested that you all
23 take up the legal argument about the exclusion now, I
24 just -- I just don't think that's practical --
25 practicable at this point. I think that's more

1 appropriately reserved for the parties to brief
2 posthearing, and you would essentially take up the
3 reconsideration of the motion that was ruled upon at the
4 top of your deliberations.

5 So when you meet to deliberate, you will
6 consider -- reconsider the Hearing Officer's ruling on
7 that motion. You can uphold it, you can reverse it. In
8 the event that you reverse it and decide that NMOGA's
9 proffered surrebuttal should have been admitted, you can
10 consider it in your deliberations.

11 And the rules also permit you to reopen the
12 record if you decide, hey, we're going to let this
13 evidence in, but we want to give the Department and
14 other parties a chance to then reply, to respond to
15 that.

16 But that is -- these are all considerations
17 that you can discuss freely during deliberations. I
18 just don't think it's practicable at this time, and I
19 think you should have the benefit of sitting with the
20 proffered evidence and the arguments that the parties
21 would present in their posthearing filings.

22 Does anyone have any questions for me?

23 CHAIR SUINA: This is madam -- this is Phoebe.

24 Thank you, Ms. Soloria, for that
25 clarification. I think that helps us all figure out how

1 we move forward on this.

2 And I see every -- other Board Members shaking
3 their head yeah. Okay. Sounds good.

4 Thank you so much.

5 MS. SOLORIA: And the other is -- this is more
6 of a suggestion to the Hearing Officer and the parties,
7 is that we -- if the Hearing Officer is agreeable, that
8 we take a short break so that the counsel can specify
9 what is being proffered and what is being -- essentially
10 have a list of what's being proffered based on the
11 Hearing Officer's order, because I don't think that was
12 clear during the earlier colloquy, and that would -- it
13 would just be more efficient for counsel to do that
14 before Mr. Smitherman is put on.

15 CHAIR SUINA: Thank you, Ms. Soloria. I think
16 I also support that, because it did sound like there was
17 some difference -- or confusion, if you will. And also,
18 I think that would be helpful prior to Mr. Smitherman
19 coming on, just that clarification.

20 I'm looking to the other Board Members, if you
21 have any comments on that, as well.

22 Sounds good.

23 VICE-CHAIR TRUJILLO DAVIS: I support that.

24 MEMBER HONKER: Me, too.

25 HEARING OFFICER ORTH: All right. So it --

1 MR. HISER: Hearing Officer, this is Eric
2 Hiser for NMOGA.

3 We will work, obviously, within the direction
4 of the Board and that you have provided, and -- but I
5 think that it would be appropriate to move
6 Mr. Smitherman back, because we, obviously, need to now
7 develop, you know, a proffer, as well as try to
8 participate in the hearing. But I do remind you that
9 he's not available tomorrow.

10 HEARING OFFICER ORTH: Okay. Thank you.

11 CHAIR SUINA: Madam Hearing Officer? This
12 is --

13 HEARING OFFICER ORTH: Yes.

14 CHAIR SUINA: -- Madam Chair.

15 And thank you for that, Mr. Hiser. I think --
16 and I appreciate that -- that information just so that
17 we know the constraints and -- of Mr. Smitherman's
18 availability, and I think we're all just trying to
19 navigate this and trying to make sure that we're --
20 we're inclusive as -- as appropriate. Thank you again
21 for working with us.

22 HEARING OFFICER ORTH: All right. Thank you.

23 So let me ask if this would be a good time for
24 a break or whether it's preferable to hear from the
25 Department for a little bit before breaking.

1 Ms. Katz?

2 MS. KATZ: I guess I would leave that up to
3 everybody else and the court reporter.

4 THE REPORTER: Yes. We've been going for
5 almost two hours so I would like a break.

6 HEARING OFFICER ORTH: We -- that's right.
7 That's right. We did get on at 8:30, didn't we?

8 All right. Let's take a longish break, then,
9 so that counsel can consider the slides, for example.
10 Let's come back at 10:45, and we'll start with the
11 Department.

12 (Proceedings in recess from 10:23 a.m. to
13 10:46 a.m.)

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

16 We're back after a break.

17 Mr. Rose, I see you on screen.

18 MR. ROSE: Two things.

19 One, and I think I alluded to this earlier, if
20 you were looking to limit the chat function to talk to
21 you, it doesn't. Right now it's for everybody, and I
22 think some -- I mean, in the past it's been just to
23 communicate with you. So if you wanted to do that,
24 you're going to have to make some changes.

25 And then secondly, I didn't know if this was

1 the proper time to talk about the discussion we had --
2 that you had this morning on my objections to
3 admissibility of certain evidence.

4 I think what -- just to be clear, our position
5 was -- is to allow basically you can admit the evidence
6 subject to objection, and we'll raise it probably with
7 the Board in the same manner that the Board's counsel
8 talked about, the NMOGA exclusions, but rather than
9 tying it up and arguing a motion, we thought rather just
10 admit it subject to objection, and then we'll raise it
11 in our posthearing submittals with the Board.

12 HEARING OFFICER ORTH: Okay. Thank you for
13 that, Mr. Rose.

14 I -- I'm happy to proceed as you've suggested,
15 and was reminded of the agreement amongst -- amongst the
16 parties about that objection. And what I was just
17 trying to do this morning was wrap up something I
18 thought was a loose end and be transparent about my
19 intentions.

20 I see Ms. Fox.

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

22 I think Mr. Rose and I are crossing wires,
23 because I thought that what we had more recently agreed
24 to was that we would argue the objections and get that
25 over with at this time so that our evidence, if you were

1 to rule on the objection, would come in not subject to
2 the objection, and so that we would not have to brief
3 the issue posthearing.

4 Our resources are limited, and since, Madam
5 Hearing Officer, you've already indicated your
6 feelings -- your thinking on the objections, we would
7 like to go forward with argument on that and -- and get
8 it out of the way. One less thing for us to have to
9 deal with.

10 MR. ROSE: And, Madam Hearing Officer, I think
11 we avoided the argument. We intend to raise it in our
12 closed hearing -- close -- our -- blah -- closing
13 argument anyway. So the issue will be, you know -- as I
14 think because it goes to the admissibility and the
15 Board's consideration of the evidence, we'll be arguing
16 whether the evidence is relevant in our posthearing
17 submittals in any event.

18 And so I thought the discussion was -- and
19 you're right. I think Ms. Fox is right. We seem to
20 have crossed -- talked past each other on this. But
21 what we were trying to do is avoid the argument here,
22 and then, because we're going to have it again
23 regardless, if the Hearing Officer's -- rather than just
24 take the evidence, make sure we don't get wound up in --
25 it will be a continuing objection even if it's

1 overruled.

2 And so I thought it might be more appropriate
3 to take the evidence and then allow us to argue in
4 close -- in our closing argument whether or not the
5 Board should consider it, mainly because we intend to
6 make that argument to the Board in any event. So I
7 don't think we save anything by arguing it now, and, in
8 fact, I think we -- we'll end up sort of lengthening the
9 process, not necessarily preserving limited resources
10 here.

11 So that was -- that was my intent, was to
12 avoid the argument on admissibility here and just do it
13 with counsel later, in the closing argument.

14 HEARING OFFICER ORTH: All right.

15 Ms. Fox, anything further?

16 MS. FOX: I'm sorry? Pardon me?

17 HEARING OFFICER ORTH: I'm sorry.

18 Anything further?

19 MS. FOX: No, Madam Hearing Officer. At this
20 point we would just like the objection dealt with as any
21 other objection is to the admissibility introduction of
22 evidence and argue it, and we'd like to see our -- all
23 that evidence admitted.

24 HEARING OFFICER ORTH: Right.

25 MS. FOX: So we would like -- we would like to

1 argue it, although I don't know if, you know, given what
2 you said this morning, I'm not sure you need to
3 entertain much argument. But we would like our evidence
4 admitted.

5 HEARING OFFICER ORTH: All right.

6 Ms. Katz, any thoughts?

7 MS. KATZ: I just would like to register that
8 anything that would make things move more quickly I
9 think would be better. So I would be in favor of
10 briefing that issue and admitting the evidence subject
11 to the briefing.

12 HEARING OFFICER ORTH: Okay.

13 So, Mr. Rose, what if we were to set aside
14 some time so that I could develop a recommendation to
15 the Board. I understand you're going to brief it
16 regardless. And yet what I have is my understanding of
17 the record, my understanding of the testimony we've
18 already had, my impression that the Board will not be
19 confused by the references to -- to methane.

20 But at least hearing whatever you'd like to
21 develop on the way to the close of the hearing, I could
22 address that in my recommendation to the Board.

23 I'm happy to find a time other than again when
24 we have this prize Board time to -- to put that on the
25 record. We could do it at the end of -- at the end of

1 the day, on a lunch break. Let's think about a good
2 time to -- to do that.

3 MR. ROSE: Madam Hearing Officer, that's fine.
4 I was just trying to avoid going through that exercise
5 and making sure that, you know, the Board had the
6 evidence, and then we could decide -- we could argue to
7 them. And I think they're capable of deciding whether
8 to consider it or not consider it. I don't think it's
9 going to taint the Board's deliberations. So that was
10 my thought, was to avoid an argument here in order to
11 expedite the process, but I'm open to either way.

12 HEARING OFFICER ORTH: All right. Let's just
13 think about a good time to do it so we're not using
14 premium Board time.

15 If I understand, we're going from here to the
16 Department's LDAR presentation.

17 MS. KATZ: Yes. Thank you, Madam Hearing
18 Officer.

19 Good morning, Madam Chair and Members of the
20 Board.

21 I'm -- the Department calls Liz Bisbey-Kuehn
22 and Brian Palmer.

23

24

25

1 ELIZABETH BISBEY-KUEHN and BRIAN PALMER.

2 (Relating to Topic Order 27)

3 having been first duly sworn or affirmed, were
4 examined and testified as follows:

5 DIRECT EXAMINATION

6 BY MS. KATZ:

7 MS. KATZ: For the Board, this testimony
8 pertains to Section 20.2.50.116, equipment leaks and
9 fugitive emissions. The testimony appears in NMED
10 Exhibit 32, at page -- beginning at page 79 and NMED
11 Rebuttal Exhibit 1, beginning at page 56.

12 Ms. Kuehn and Mr. Palmer have adopted their
13 testimony, and there's no corrections to this section.

14 So I'll have Ms. Kuehn begin with an overview
15 of what this -- this section of the rule regulates.

16 MS. BISBEY-KUEHN: Good morning, everyone.

17 As indicated, this is Section 116, equipment
18 leak and fugitive emissions. And I'll provide an
19 overview of what exactly fugitive emissions are for you.

20 So there are -- there's a large number of
21 equipment, including valves, pumps and other equipment,
22 associated with natural gas production and processing
23 that can be a significant source of VOC emissions.

24 And equipment leaks occur from pumps, pressure
25 relief devices, valves, flanges and connectors, and

1 seals. And sources of leaks also include open-ended
2 lines and valves, as well as corrosion of connections,
3 valves and flanges.

4 Leaks are typically caused by poorly fitted
5 connection points and deterioration of seals and
6 gaskets, and can also occur in changes in pressure,
7 temperature and mechanical stresses. Components that
8 emit fugitive emissions include valves, connectors,
9 pressure relief devices, open-ended lines, access doors,
10 flanges, closed vent systems, seals, pumps, vents, and
11 all the other equipment listed out here before you.

12 MS. KATZ: And, Ms. Kuehn, can you discuss how
13 fugitive emissions can be addressed?

14 MS. BISBEY-KUEHN: Yes. The control options
15 for fugitive emissions include the implementation of an
16 emission leak detection and repair program, otherwise
17 referred to as an LDAR program. These types of programs
18 reduce fugitive emissions by requiring owners and
19 operators to inspect their facilities and equipment to
20 find and repair leaking components and equipment.

21 And the leak detection methods include audio,
22 visual and olfactory inspections, or AVO inspections,
23 that we've seen in other parts of the rule. Also, an
24 instrument monitoring in accordance with an EPA Federal
25 Reference Method 21, or, alternatively, the use of

1 monitoring using optical gas imaging, OGI, which we have
2 also seen in other sections of the rule. And this is
3 typically done using a FLIR camera, a forward-looking
4 infrared camera, that can detect hydrocarbons.

5 AVO inspections rely on sight, sound and smell
6 to identify leaking components. The EPA Reference
7 Method 21 identifies leaks using a portable instrument
8 that detects the presence of certain organic gases and
9 is able to actual -- to measure the actual volumetric
10 concentration of emissions.

11 And optical gas imaging is a newer method for
12 leak detection and repair that uses, as I indicated,
13 forward-looking infrared cameras to inspect equipment
14 components to identify those leaking -- leaking
15 equipment.

16 Optical gas imaging can be used to survey
17 large numbers of components in a shorter period of time,
18 or in short amount of time, and while EPA Reference
19 Method 21 requires an instrument probe and requires
20 components to be evaluated on a -- on an individual
21 basis. OGI can also be used in aerial surveys, and so
22 you can -- you can identify much more -- many more types
23 of emissions from many more numbers of facilities using
24 that type of technology, as well.

25 The overall effectiveness of an LDAR program

1 to control fugitive emissions is based on the frequency
2 of the monitoring and the leak definition. And it
3 follows that more frequent monitoring means leaks are
4 discovered more quickly and repaired sooner, resulting
5 in less harmful air pollution.

6 MS. KATZ: Ms. Kuehn, can you summarize the
7 requirements of the proposed -- the rule for
8 addressing -- that address fugitive emissions?

9 MS. BISBEY-KUEHN: Yes. There are two
10 concepts in this rule that are important.

11 There's one set of requirements that are a
12 default monitoring requirements that prescribe certain
13 frequencies of monitoring, and that is what you see
14 before you. The default monitoring requirements apply
15 to the inspections of equipment and leaking components.

16 And facilities with a production or throughput
17 greater than 10 barrels per day or 60,000 standard cubic
18 feet per day of gas require weekly AVO inspections,
19 while facilities with production or throughput less than
20 10 barrels of oil per day or production less than 60,000
21 standard cubic feet per day require monthly AVO
22 inspection.

23 In addition, there are prescribed LDAR
24 frequencies for facilities using either EPA methods or
25 OGI, according to the following schedules:

1 Well sites and tank batteries are required to
2 be surveyed annually at facilities with a PTE less than
3 two tons per year, semiannually at facilities with a PTE
4 between two and five tons per year, and quarterly at
5 facilities with a PTE greater than five tons per year.

6 For gathering and boosting stations, gas
7 processing plants and transmission compressor stations,
8 the requirement is to conduct a quarterly LDAR survey at
9 facilities with a PTE less than 25 tons per year and
10 monthly at facilities with a PTE equal to or greater
11 than 25 tons per year.

12 There's also an alternative monitoring
13 component that I'll -- that I'll speak to in more detail
14 when we go through the actual requirements in the
15 proposed rule.

16 MS. KATZ: And can you summarize for the Board
17 the -- the Department's position now based on the
18 testimony that was provided by the other parties in
19 their direct and rebuttal filings?

20 MS. BISBEY-KUEHN: Yes. So both industry and
21 the environmental NGO parties submitted extensive
22 testimony related to LDAR inspection frequencies. Both
23 stakeholder groups cited studies related to LDAR with
24 very competing data sets that are -- provide kind of
25 opposing sets of data on LDAR effectiveness, the

1 emission factors, leakage rates, component counts,
2 fugitive emissions, costs, and representativeness of the
3 EPA's data in New Mexico.

4 The Department was unable to conduct the -- a
5 meta-analysis of those competing studies and provided in
6 the competing technical testimony and associated
7 exhibits provided by the parties.

8 The Department attempted to provide a middle
9 ground for the Board's consideration between these
10 competing data sets. That -- that frequency schedule
11 was more closely aligned with Colorado's LDAR program.
12 And the Department was unable to negotiate a middle
13 ground between these two competing data sets. And
14 further, the Department was unable to sufficiently
15 demonstrate the basis for that revision and has since
16 reverted back to the original proposal that was filed in
17 May.

18 The parties' subject matter experts need to
19 provide testimony regarding their cited peer-reviewed
20 studies, the cost estimates, leakage rates, LDAR
21 effectiveness, et cetera, directly to the Board for the
22 Board's consideration.

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

24 Can you please walk through the provisions of
25 Section 116 as they stand today?

1 MS. BISBEY-KUEHN: Yes. So similar to the
2 other sections that we've looked at previously, the
3 applicability section discusses the sources that are
4 subject to this section.

5 We've added a clarifying clause that
6 components in water or air service are not subject to
7 the requirements of this part, or this section. And
8 that -- that makes sense. If they're in water or air
9 service, they are not sources of fugitive VOC emissions
10 and so would not -- it's not appropriate to include
11 those components within the scope of this section.

12 In addition, we added a clause that clearly
13 states that the requirements of this part may be
14 considered in the facility-wide PTE and in determining
15 the monitoring frequency requirements in this section.
16 So other sections' control requirements may be taken
17 into consideration in a facility-wide PTE calculation in
18 order to determine what frequency you are subject to.
19 That's an important requirement that we clarified.

20 The emission standards identified again the
21 equipment that's subject to this part. I won't read
22 that for you all. I think that's fairly
23 self-explanatory.

24 The default monitoring requirements begin in
25 so -- in Paragraph C. We've struck the requirement to

1 monitor in accordance with Section 112. There are no
2 specific monitoring requirements applicable to this
3 section there.

4 Paragraph C.(1), as I spoke to you on a
5 previous slide, requires the AVO inspection for
6 facilities that have that production or throughput less
7 than those capacity rates identified on -- on a weekly
8 basis. And Subparagraphs (1)(a) through (d) require --
9 specify the type of combustion of -- specify the type of
10 inspection that has to be inspected and what an owner or
11 operator has to look for when they're conducting that
12 AVO inspection.

13 Paragraph (2), as I indicated on a previous
14 slide, also is the equivalent inspection -- AVO
15 inspection requirement for facilities that are -- have a
16 daily production or throughput rate less than those
17 capacity throughputs, and those are required on a
18 monthly basis.

19 And this section also references back to those
20 Subparagraphs (a) through (d) that I just went through,
21 and that -- and that specifies what the owner or
22 operator must look at when they're conducting the AVO
23 inspection.

24 Paragraph (3) outlines the OGI, the optical
25 gas imaging, or the EPA reference method LDAR surveys

1 that are required for all types of facilities that are
2 subject to this rule. In addition, we added a
3 requirement that the Department may request an owner or
4 operator to conduct a survey at any time for good cause
5 shown.

6 In addition, we added a timeline for existing
7 facilities to come into compliance within two years of
8 the effective date of this part. And given the volume
9 of facilities that will be covered under this rule, we
10 think that's an appropriate compliance timeline.

11 So the LDAR frequencies before you have been
12 presented to you on a previous slide. So I won't go
13 through those again here. They're exactly as they were
14 discussed prior.

15 Paragraph (4) requires calibration -- or
16 specifies how the unit must be calibrated prior to using
17 a Reference Method 21 survey. And Paragraph (4)(b)
18 identifies the leak detection rate that is considered --
19 that would be considered a leak under this part.

20 Inspection -- (5) outlines the requirements
21 for inspections using an OGI, and we're pointing to a
22 federal rule at -- that requires specifications and
23 daily instrument checks and other additional
24 requirements that are set forth in those subparagraphs,
25 Paragraph (i) of the federal rule.

1 (5)(b) clarifies that a leak detected
2 associated with normal operation, such as one that
3 occurs during pneumatic device actuation, is not
4 considered a leak. That's an important point to make.

5 Components -- Paragraph (6) identifies how
6 owners and operators handle inspections of components
7 that are difficult or unsafe or inaccessible to monitor.
8 It provides for specific circumstances for -- for how
9 owners and operators handle that type of situation and
10 how they're required to monitor those at the next
11 process shutdown.

12 Paragraph (7) requires that any -- prior to
13 any monitoring event the owner or operator shall date
14 and time stamp the monitoring event.

15 Paragraph D outlines the alternative equipment
16 leak monitoring plan. So Paragraph C went through the
17 default equipment leak monitoring plan. This is an
18 alternative set of equipment leak monitoring plans.

19 And the first option is for an individual
20 alternative monitoring plan to be utilized. This is an
21 alternative plan that would be proposed by a third party
22 and reviewed in advance by the Department to ensure it's
23 an enforceable, equivalent and appropriate monitoring
24 strategy. And those -- those would need to be approved
25 by the Department before an owner or operator could

1 comply with this section by complying with that type of
2 individual alternative monitoring plan.

3 There's also requirements for -- if violations
4 are discovered, there's requirements for them to notify
5 the Department of the violation, and there's a process
6 by which the Department can terminate the use of that
7 alternative monitoring plan.

8 And the purpose of the alternative equipment
9 leak monitoring plan is to provide an on ramp into this
10 section for the use of new technologies that are more
11 effective at -- and more efficient at discovering leaks.
12 And those can take many forms. They can take the form
13 of an aerial survey, satellite data, fence line
14 monitoring, and other types of technology.

15 So --

16 MS. KATZ: Ms. Kuehn --

17 MS. BISBEY-KUEHN: Yes.

18 MS. KATZ: Sorry.

19 I just wanted to clarify something, because
20 you had said these would be provided by a third party,
21 and I believe you meant that these would be proposed by
22 an owner or operator as an alternative to the default
23 monitoring plan.

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

25 And sorry if I was unclear about that.

1 So the first type of alternative equipment
2 leak monitoring plan are covered in D.(1), and then the
3 second type of alternative leak monitoring plans are
4 outlined in Paragraph (2). Those are preapproved plans
5 which still must go through an evaluation and review
6 process by the Department before they approve those
7 monitoring plans.

8 And the idea here is that the Department will
9 provide those preapproved alternative monitoring plans
10 on its web site so that the public and the owners and
11 operators know what the Department has considered an
12 equally effective and enforceable and equivalent
13 monitoring strategy. And the process is the same. They
14 must seek approval from the Department. The Department
15 maintains the authority to terminate that approval in
16 certain -- certain circumstances.

17 Paragraph E outlines the repair requirements
18 for these -- for leaks that are detected. And Paragraph
19 E.(1) requires owners and operators to place a visible
20 tag on the leaking component and unless -- unless that
21 it was -- it was repaired at the time of discovery.
22 E.(2) identifies the repair timeline for leaks
23 discovered in this section.

24 Paragraph (3) requires those leaks to be
25 remonitored no later than 15 days after the leak was

1 repaired, to demonstrate that it was repaired. And then
2 E.(4) requires that leaks that need to be delayed
3 because they can't be effectively controlled at the --
4 at that time within that timeline must be repaired at
5 the next process unit shutdown, which is equivalent to
6 other federal requirements that allow that type of leak
7 repair extension.

8 And Paragraph (5) authorizes that leaks that
9 can't be repaired due to a discovery of -- that can't be
10 repaired due to a shortage of parts may be also repair
11 delayed, provided that they document the basis for the
12 extension -- the necessary extension due to the -- due
13 to the delay of the shortage of parts.

14 Paragraph 4 goes through all of the
15 recordkeeping requirements to demonstrate compliance
16 with this section. I won't go through this entire list
17 here, but they're required -- owners and operators have
18 to record facility location, the monitoring method, date
19 and time of the inspection, the leaks that were
20 identified, and the description of the leak needing
21 repair, and then additional information on the type of
22 leak and when the leak was repaired.

23 MS. KATZ: And I'll just clarify for the
24 record that the -- it's the recordkeeping requirements
25 at Paragraph F. I believe Ms. Kuehn misstated that as

1 Paragraph 4.

2 MS. BISBEY-KUEHN: Yeah. Been a long week.

3 So the -- again these are additional
4 recordkeeping requirements before you.

5 And the reporting requirements are in
6 Paragraph G. We didn't receive any comments on those
7 paragraphs.

8 That concludes this presentation.

9 MS. KATZ: And that is the Department's
10 summary of the rule provisions at Section 116.

11 HEARING OFFICER ORTH: All right. Thank you
12 very much, Ms. Katz and Ms. Kuehn.

13 Parties, if you have questions of Ms. Kuehn
14 based on this testimony, please turn on your cameras.

15 I see Ms. Gutierrez.

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

18 CROSS-EXAMINATION

19 BY MS. GUTIERREZ:

20 MS. GUTIERREZ: And, Ms. Kuehn, thank you very
21 much for your presentation and walk-through of leak
22 detection.

23 I just have a few questions for you.

24 Does the Department recognize and agree that
25 the VOC content of natural gas transported by a

1 transmission compressor station is lower -- much lower
2 than the VOC content of gas moved in gathering and
3 boosting and at gas plants?

4 MS. BISBEY-KUEHN: Yes.

5 MS. GUTIERREZ: Do you agree, then, that it
6 would be reasonable to treat transmission compressor
7 stations differently than with respect to inspection
8 frequency under this rule program?

9 MS. BISBEY-KUEHN: Yes.

10 MS. GUTIERREZ: Were you able to review the
11 joint revised proposed language proposed by Kinder
12 Morgan and EDF and circulated to the parties on Friday,
13 September 24th?

14 MS. BISBEY-KUEHN: Yes.

15 MS. GUTIERREZ: And I'm happy to share my
16 screen if that would be helpful.

17 MS. BISBEY-KUEHN: That would be helpful.

18 MS. GUTIERREZ: The Department's -- sorry
19 about that.

20 Did I interrupt you?

21 MS. BISBEY-KUEHN: No. That would be helpful.

22 MS. GUTIERREZ: Okay.

23 Madam Hearing Officer, may I -- oh, thank you.
24 You're well ahead of me.

25 Okay. So for the benefit of the parties and

1 the Board, this was the filing from Friday -- sorry,
2 just making sure I had the right document up -- Friday,
3 September 24th, from both EDF and Kinder Morgan.

4 And I'll just scroll down here to the proposed
5 language.

6 HEARING OFFICER ORTH: Ms. Gutierrez?

7 MS. KATZ: I'm not seeing anything,
8 Ms. Gutierrez.

9 MS. GUTIERREZ: Oh, you're not?

10 MS. KATZ: I don't know --

11 MS. GUTIERREZ: Let's try again, then. Sorry
12 about that.

13 Do you see anything now?

14 MS. KATZ: No. There's just a gray window
15 there.

16 MS. GUTIERREZ: Okay. Let me try again.

17 MS. BISBEY-KUEHN: I may add that I do recall
18 what the -- the reference that you are referring to, and
19 we did -- I did have a chance to review that.

20 MS. GUTIERREZ: Okay. I think -- let me try
21 this one more time, and if it doesn't work, I'll move
22 this along, because I don't want to delay us.

23 I have a spinning wheel so I'm going to let
24 that think.

25 Okay. Can you see the language on the screen

1 now?

2 MS. BISBEY-KUEHN: Yes.

3 MS. GUTIERREZ: Okay. Great.

4 Let me -- oh, you're probably going to see --

5 HEARING OFFICER ORTH: Ms. Gutierrez, we have

6 a --

7 MS. GUTIERREZ: Yes.

8 HEARING OFFICER ORTH: -- request from a Board

9 Member for the number of the exhibit.

10 MS. GUTIERREZ: A request for what? I'm

11 sorry. I didn't hear you.

12 HEARING OFFICER ORTH: Oh, sorry.

13 The exhibit number.

14 MS. GUTIERREZ: So this was filed by EDF and
15 Kinder Morgan as a notice of alternate proposal that we
16 would be presenting in our presentations. We would be
17 happy -- and this was through conversation with multiple
18 parties. We would be happy to additionally support
19 it -- submit it as an exhibit. We did file it with
20 Ms. Jones and I think understood that it would be
21 circulated to the Board Members.

22 HEARING OFFICER ORTH: Thank you.

23 MS. GUTIERREZ: Thank you.

24 Okay. Sorry about this. Too many screens.

25 Okay. So with the language now on the screen,

1 and your having reviewed it, does the Department support
2 the joint revised language proposed by EDF and Kinder
3 Morgan?

4 MS. BISBEY-KUEHN: Yes.

5 MS. GUTIERREZ: And is it your
6 understanding -- I'm just taking this a little bit more
7 into context -- that the current federal NSPS Quad 0a
8 applicable to transmission compressor stations is
9 quarterly, which is the same time frame or same
10 frequency that EDF and Kinder Morgan are proposing here
11 in this rule?

12 MS. BISBEY-KUEHN: Yes.

13 MS. GUTIERREZ: Okay.

14 And then in NMED's Exhibit 1, page 56, your
15 testimony states that the Department was previously most
16 concerned with the reference to compliance with federal
17 NSPS leak detection programs due to changes in the
18 federal program with changes in administration.

19 Is that understanding correct?

20 MS. BISBEY-KUEHN: Yes.

21 MS. GUTIERREZ: Okay.

22 So then do you agree that the EDF and Kinder
23 Morgan proposal with the use of language "at least as
24 stringent as NSPS Quad 0a," that's effective as of
25 today, provides the backstop that ensures the

1 Department's goals with leak detection are achieved
2 because the current NSPS Quad 0a applicable to
3 transmission compressor stations is quarterly?

4 MS. BISBEY-KUEHN: Yes.

5 MS. GUTIERREZ: Thank you.

6 I think one last question.

7 And just as clarification as to the
8 Department's interpretation of this joint proposal,
9 following that line, is it fair to say, then, that when
10 the Department evaluates that the federal NSPS is,
11 quote, at least as stringent as NSPS Quad 0a, existing
12 as of today, what we really mean is that the federal
13 NSPS must require at least quarterly frequency for leak
14 detection? Is that correct?

15 MS. BISBEY-KUEHN: Yes.

16 MS. GUTIERREZ: Okay.

17 Thank you. And I have no further questions
18 for Ms. Kuehn.

19 Thank you, Ms. Kuehn.

20 HEARING OFFICER ORTH: Thank you,
21 Ms. Gutierrez.

22 I see Mr. Rose.

23 MR. ROSE: Yes, Madam Hearing Officer. Just a
24 question of clarification.

25

1 CROSS-EXAMINATION

2 BY MR. ROSE:

3 MR. ROSE: Ms. Kuehn, I assume -- and we heard
4 testimony, which seems like a year ago now, with respect
5 to small businesses that there were some provisions of
6 your proposal that -- that were applicable to small
7 businesses, and it was my recollection that this was one
8 of them.

9 Is that still the case? Did I remember that
10 correctly?

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

12 MR. ROSE: That was the only question I had,
13 Madam Hearing Officer.

14 HEARING OFFICER ORTH: Thank you.

15 I think I saw Mr. Hiser there briefly.

16 There you are.

17 MR. HISER: Yes, Madam Hearing Officer. I'm
18 here.

19 And I will say that we are happy that Kinder
20 Morgan, EDF and the Department have reached an
21 agreement, but we would note that that seems
22 inconsistent with the prior rulings of this Hearing
23 Officer about NMOGA and its information.

24 But rather than belabor that point, let's move
25 on to the -- Ms. Kuehn.

1 CROSS-EXAMINATION

2 BY MR. HISER:

3 MR. HISER: So, Ms. Kuehn, in the provisions
4 of your -- of your rebuttal testimony on page -- your
5 Exhibit 1, NMED Rebuttal Exhibit 1, page 56, you
6 expressed concern about allowance of Subparts Quad 0 and
7 Quad 0a to meet the requirements of Part 50.

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

9 MR. HISER: And putting aside the fact that
10 you just agreed to accept those for Kinder Morgan in the
11 prior testimony, your objection here is to the programs,
12 it's not -- is it to the use of the methods, or is it to
13 the program that your objection relates to?

14 MS. BISBEY-KUEHN: I'm not clear on your
15 question, Ms. Hiser.

16 MR. HISER: And that's fair, because it wasn't
17 as articulate as it may be.

18 If we were to go out and conduct a Subpart
19 Quad 0 or Quad 0a investigation using the appropriate
20 methodology that also meets the Department's
21 specifications in Part 50, would you accept that LDAR
22 activity as meeting the requirements of Part 50, even
23 though it was also done for purposes of complying with
24 Subparts Quad 0 or Quad 0a?

25 MS. BISBEY-KUEHN: Only if it was conducted on

1 the -- on the frequency as required in Part 50. If
2 everything else aligned, it would be an acceptable --

3 MR. HISER: So you're not proposing to require
4 us to do -- to sniff the valve once for Quad 0a purposes
5 and then to sniff it again for Subpart -- or Part 50
6 purposes.

7 MS. BISBEY-KUEHN: No. An operator, you know,
8 if -- if Part 50 is more stringent than ideally,
9 complying with Part 50 would also comply with -- with
10 Quad 0a.

11 MR. HISER: So as long as the technical
12 requirements are met, then it can be used for multiple
13 purposes. Thank you for that clarification.

14 You also stated that you didn't believe that
15 the -- that the Quad 0 and Quad 0a frequency information
16 that was gathered by the federal EPA in terms of the
17 frequency for leak detection and repair activities were
18 appropriate because a number of the facilities across
19 New Mexico are older than the NSPS equipment at issue in
20 that survey; is that correct?

21 MS. BISBEY-KUEHN: That's -- that's one point
22 that was made. Yes.

23 MR. HISER: Okay.

24 Would not that newer equipment be relevant to
25 new equipment under the new equipment provisions of this

1 proposal, or could it not be?

2 MS. BISBEY-KUEHN: I'm unclear about what the
3 question is.

4 MR. HISER: Well, your complaint was that -- I
5 believe that there was older equipment across New
6 Mexico.

7 But is there not also newer equipment across
8 New Mexico?

9 MS. BISBEY-KUEHN: There is both older and
10 newer equipment across New Mexico.

11 MR. HISER: And so would not the federal
12 information that NMOGA provided about leak frequency at
13 that newer facilities be relevant to newer facilities?

14 MS. BISBEY-KUEHN: It would be relevant to
15 newer facilities.

16 MR. HISER: Did you give any consideration to
17 that as part of your evaluation?

18 MS. BISBEY-KUEHN: We -- it's unknown if we
19 gave consideration to that in the evaluation.

20 MR. HISER: Okay. Thank you.

21 What is the frequency of AVO inspections that
22 you're requiring the operators to do? Is it basically
23 monthly or -- in the rule? Can you tell us --

24 (Simultaneous discussion.)

25 MS. BISBEY-KUEHN: Quarterly or monthly

1 depending on the production or throughput rate.

2 MR. HISER: And in part were you responding to
3 testimony that you've seen from experts such as Mr. Lyon
4 that much of the leak depends upon the maintenance
5 status of the equipment?

6 MS. BISBEY-KUEHN: No. That wasn't the basis
7 for that requirement.

8 MR. HISER: So what was the basis for the
9 requirement, then?

10 MS. KATZ: And may I -- I believe that that
11 was included in the original petition, May 6th.

12 MS. BISBEY-KUEHN: It was.

13 MR. HISER: It may be. I think I'm still
14 entitled to an answer. This is her summary of both
15 direct and rebuttal.

16 MS. KATZ: I would just say that I don't see
17 how we would have been relying on information from
18 Mr. Lyon if we were proposing it initially in the
19 petition.

20 MR. HISER: Excellent question.

21 So let me rephrase it and say without regard
22 to what Mr. Lyon may or may not have said in this
23 hearing, what was the basis for the Department's choice
24 of the AVO frequency?

25 MS. BISBEY-KUEHN: That higher production

1 facilities will have necessarily higher -- more
2 equipment with more leakage opportunities and should be
3 inspected more frequently.

4 MR. HISER: And what's the -- what's the
5 Department's hope behind the inspection provision?

6 MS. BISBEY-KUEHN: That leaks are discovered
7 and fixed.

8 MR. HISER: Okay.

9 And it's your understanding that that's
10 required under the OCD rules, as well, either weekly or
11 monthly depending on certain thresholds?

12 MS. BISBEY-KUEHN: That is correct.

13 MR. HISER: In page 59 of your testimony on
14 Exhibit 23 -- or Rebuttal Exhibit Number 1, NMOGA
15 proposed that if certain equipment was fixed at the time
16 it was discovered, that no tagging would be required,
17 and the Department accepted that; is that correct?

18 MS. BISBEY-KUEHN: Yes.

19 MR. HISER: And so do you agree that it's
20 desirable that industry be able to fix it right away,
21 that that's what you're seeking to occur?

22 MS. BISBEY-KUEHN: Yes.

23 MR. HISER: And then you also -- there was an
24 Oxy comment that you responded to where they talked
25 about leak survey for equipments constructed prior to

1 the effective date, and this is where you -- I'm sorry.

2 I can't read my note here.

3 Let's skip that for the moment.

4 Now, you talked about inactive and wellhead
5 facilities are required to conduct a one-time survey in
6 your rebuttal testimony.

7 Why did you move to a one-time survey at the
8 time of your rebuttal testimony for those facilities?

9 This is the bottom of page 59.

10 MS. BISBEY-KUEHN: Yeah. So as I -- as I
11 discussed, we are -- we dealt with very -- a voluminous
12 set of direct and rebuttal testimony on equipment leaks,
13 and we were -- the objective was to provide a middle
14 ground proposal for the Board's consideration that was
15 crafted as a -- kind of a middle -- middle ground
16 approach based on the two competing sets of information
17 that was provided by the different stakeholders.

18 MR. HISER: I appreciate the -- I guess the
19 politicness of that, but I'm wondering what the
20 technical basis is that underlied the Department's
21 decision to move from one time to annual, I believe, for
22 these facilities, that had been raised in Oxy's
23 comments.

24 MS. BISBEY-KUEHN: So I'm not clear what
25 your -- what your question is.

1 MR. HISER: So did you undertake any type of
2 technical evaluation on the tons that would be reduced
3 or the costs that were incurred by industry by moving
4 from the one time only to an annual standard?

5 MS. BISBEY-KUEHN: So we prepared cost
6 estimates and emission reductions on our original
7 proposal, and so to the extent that that was covered in
8 our original proposal, we did conduct that analysis.

9 MR. HISER: Did you ever consider any
10 incremental costs for moving from one standard to
11 another, for example, from annual to semiannual or from
12 one time to annual?

13 MS. BISBEY-KUEHN: That information is in our
14 direct testimony, in the cost spreadsheets. I think
15 it's broken out. There's a series of frequencies. The
16 cost estimates are based on a series of frequencies, and
17 that information is in -- is found within our
18 spreadsheets.

19 And Mr. Palmer can confirm that.

20 MR. HISER: Okay. Thank you.

21 (Unintelligible and/or inaudible.)

22 Let's see. NMOGA proposed to revise
23 certain -- exempting certain facilities that process
24 only coal bed methane.

25 Can you explain to us the Department's

1 understanding of the VOC content of coal bed methane
2 versus natural gas produced from conventional
3 operations?

4 MS. BISBEY-KUEHN: It -- coal bed methane
5 typically has a much lower VOC content.

6 MR. HISER: Okay.

7 And then in the recent discussion that you had
8 with Ms. Gutierrez for Kinder Morgan, I believe that
9 they raised the fact that there is lower VOC and that
10 you accepted that as a basis for reduction in frequency.

11 Is that rationale also appropriate for coal
12 bed methane?

13 MS. BISBEY-KUEHN: Yes.

14 MR. HISER: Thank you.

15 On page 60 of your testimony, you said that
16 you went to the rebuttal proposal to more closely align
17 with the Colorado rules.

18 Can you give us a brief finger -- thumbnail
19 description of the rationale for why you thought
20 Colorado was appropriate?

21 MS. BISBEY-KUEHN: They have a similar set of
22 facilities. They have an established LDAR frequency
23 program that has been in effect for some time and that
24 was agreed upon at those rulemaking hearings.

25 MR. HISER: And in fact, I think you testified

1 earlier in this proceeding that those rules have been in
2 effect since around 2009 and subject to periodic
3 redevelopment and reevaluation in Colorado; is that
4 correct?

5 MS. BISBEY-KUEHN: Those were for pneumatics.
6 Yes. So to the extent the LDAR program -- yes. That
7 are -- I don't know the exact date of the -- their --
8 when they implemented their LDAR program.

9 MR. HISER: Okay. Thank you.

10 Now, earlier you noted that we have in New
11 Mexico, thanks to the OCD and now also to the proposal
12 from NMED, a fairly extensive AVO investigation of these
13 facilities.

14 Does that weigh in our decision about how
15 frequently we should conduct the instrumental evaluation
16 or OGI evaluation under LDAR?

17 MS. BISBEY-KUEHN: No. I think they
18 complement each other.

19 MR. HISER: Can you explain what it is that
20 we're seeking to do that's different between those
21 programs?

22 MS. BISBEY-KUEHN: AVO is a less -- it doesn't
23 require a specific technology. It's going to be more
24 subjective. But it happens more frequently, and it's
25 looking for -- it's a screening evaluation, or looking

1 for obvious leaks that can be detected using those
2 methods.

3 MR. HISER: And what --

4 MS. BISBEY-KUEHN: It's a technology-based
5 inspection that's targeting specific pollutants.

6 MR. HISER: So is it fair to say that the
7 Department thinks that an AVO inspection might find
8 particularly big leaks that are obvious? That might --

9 MS. BISBEY-KUEHN: Yes.

10 MR. HISER: Okay.

11 And that your interest in the -- sorry. I'm
12 losing my voice. And that your interest in the LDAR
13 program is for the smaller leaks, things like valve
14 stems, flanges, connectors, things of that nature?

15 MS. BISBEY-KUEHN: Yes.

16 MS. KATZ: And can we just clarify, Mr. Hiser?
17 We can maybe talk about it as enhanced LDAR, maybe might
18 help.

19 MR. HISER: Okay.

20 I have to struggle with the fact I printed
21 stuff on two pages and I keep getting them flip-flopped.

22 So my next question, I think, goes to page 61,
23 and this was NMOGA proposed to add language to Paragraph
24 (6), Ms. Kuehn, and you probably remember this, where we
25 argued that leaks detected should not be subject to

1 enforcement action unless the owner fails to perform the
2 required repairs, and the Department declined to
3 present -- or to accept that change; is that correct?

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

5 MR. HISER: And what was the rationale that
6 the Department provided for not undertaking -- or not
7 including that in the rule?

8 And I believe it's set forth in that
9 paragraph.

10 MS. BISBEY-KUEHN: LDAR inspections provide
11 important information to owners and operators regarding
12 the condition of sources and the overall state of
13 operations at a facility. There may be instances where
14 the Department discovers egregious violations from
15 leaking components that present an imminent and
16 substantial danger to human health or the environment or
17 repeated leaks from the same components that indicate a
18 systemic pattern of failure by the owner or operator to
19 maintain sources and components in good working order.

20 The Board should not categorically limit the
21 Department's enforcement authority in the manner
22 proposed. Doing so would unreasonably hinder the
23 Department's ability to enforce on violations and would
24 conflict with the Department's existing regulatory and
25 statutory authority to take enforcement action for

1 violations of the Air Quality Control Act in Part 50.

2 MR. HISER: Thank you, Ms. Kuehn. I
3 appreciate that.

4 And do you still believe that today as you're
5 testifying here to the Board?

6 MS. BISBEY-KUEHN: Yes.

7 MR. HISER: Okay.

8 And I think your understanding based on
9 industry's prior statement in that is that industry
10 doesn't really disagree with the standard that you've
11 just articulated either, correct? We are interested in
12 a level playing field for good operators?

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

14 MR. HISER: Okay.

15 My question is -- I'm going to ask you a
16 hypothetical and crave the indulgence of your counsel,
17 who is glowering at me on the screen.

18 And so right now we have a -- you know, a
19 bureau which is interested in working with all parties
20 and moving this forward and making emissions reductions,
21 but the rule that you propose would actually make any
22 leak a violation just at the Department's say-so; is
23 that correct?

24 MS. BISBEY-KUEHN: I think it depends on our
25 evaluation of the leak and whether or not we would

1 consider that a violation or not.

2 MR. HISER: So basically you're saying it's at
3 your sole discretion as to whether or not it would be a
4 violation.

5 MS. BISBEY-KUEHN: It would be, but in that --
6 that decision is required, we must show good cause for
7 that decision, and that decision that -- is appealable.

8 MR. HISER: Do you think it's reasonable for
9 industry to push back on just handing a check to an
10 agency, because once this goes into the rules, any
11 agency, not just Liz and Lara and the people that we
12 know there now, can make those decisions in the future?
13 Do you think --

14 MS. KATZ: Objection. That --
15 (Simultaneous discussion.)

16 MR. HISER: -- in the future may be a
17 legitimate concern to industry?

18 MS. KATZ: And that's --

19 HEARING OFFICER ORTH: Ms. Katz? .

20 MS. KATZ: -- just a mischaracterization, I
21 think, of what the testimony that Ms. Kuehn just read
22 and what she's saying.

23 HEARING OFFICER ORTH: All right.

24 Would you rephrase, please, Mr. Hiser?

25 MR. HISER: So my question to Ms. Kuehn is

1 whether interpretations can change over time and whether
2 industry should be concerned about that.

3 MS. BISBEY-KUEHN: The record on this
4 rulemaking is clear, and our intent is clear.

5 MR. HISER: Okay. Thank you, Ms. Kuehn. I
6 appreciate that clarification, as well.

7 And Ms. Katz.

8 On page 63, I think, of your testimony -- I
9 think we're still in your -- nope, we're in the cost
10 analysis.

11 Are you speaking to this, or is it going to be
12 Mr. Palmer?

13 MS. BISBEY-KUEHN: That will be Mr. Palmer. I
14 can see if I can answer the question, but Mr. Palmer
15 should probably join us, also.

16 MR. HISER: Are we able to get Mr. Palmer?

17 MR. PALMER: I'm here.

18 MR. HISER: Okay. Good.

19 So in the -- your testimony, Mr. Kuehn and
20 Mr. Palmer, you talk about model plant information
21 between -- based on information in the greenhouse gas
22 reporting plant for the Permian and San Juan Basins, and
23 then you also talked about the 2016 CTG information that
24 you provided.

25 And you testified that you couldn't evaluate

1 the validity or representativeness of the alternative
2 model plants mentioned by NMOGA because you said NMOGA
3 didn't document its testimony or exhibits to the actual
4 model plants; is that correct?

5 MR. PALMER: That is correct.

6 MR. HISER: Did NMOGA provide the underlying
7 data in Exhibit 27 that was filed and admitted in this
8 proceeding?

9 MR. PALMER: Yes. NMOGA provided a printout
10 from the Greenhouse Gas Reporting Program, but there
11 were no spreadsheets indicating how those GHGRP data
12 were manipulated to create model plants or whatever you
13 used to present the results.

14 MR. HISER: Okay.

15 And did you consider those spreadsheets in
16 light of the testimony of Mr. Smitherman on direct?

17 MR. PALMER: I'm sorry. Could you please
18 restate that?

19 MR. HISER: Did you consider what was in the
20 spreadsheet in light of the testimony of Mr. Smitherman
21 on direct in this proceeding?

22 MR. PALMER: I'm sorry. Which test --

23 MR. HISER: It would have been NMOGA Exhibit
24 A1, the testimony of John Smitherman, in response to --

25 MR. PALMER: He --

1 MR. HISER: -- on LDAR.

2 MR. PALMER: His testimony referred to some
3 tables in the red-line of the rule.

4 MR. HISER: And so your testimony is that you
5 were unable to determine between Mr. Smitherman's
6 testimony, the red-line tables and the exhibit what he
7 was talking about.

8 MR. PALMER: I had a general sense, but I
9 could not draw a firm conclusion or evaluate how he came
10 up with those numbers that were in the tables in the
11 red-line. It was not clear that he had created those
12 tables in the red-line because the red-line was not
13 attributed to any particular witness. And so that's as
14 far as we took it.

15 MR. HISER: Okay. Thank you, Mr. Palmer.

16 A little bit further on that page, there's
17 testimony -- this sounds perhaps more like Ms. Kuehn,
18 but perhaps it was you, Mr. Palmer -- that it is beyond
19 the scope of this rulemaking to reassess EPA's response
20 to particular API, being American Petroleum Institute,
21 comments on the 2016 Control Techniques Guidelines in
22 the absence of additional information.

23 Is it your understanding that those API
24 comments went to the costs that were being used?

25 MR. PALMER: Yes. That was my understanding.

1 MR. HISER: And so how would discussion of
2 costs be beyond the scope of the Air Quality Control Act
3 which makes cost one of the considerations for the
4 Board?

5 MR. PALMER: I reviewed the EPA's response to
6 those API comments, and they seem to have responded to
7 them completely, and I assume, then, that those comments
8 and EPA's response were reflected in the CTG's costs.
9 And so I felt that it was beyond the scope of our
10 project using the CTG cost estimates to do any further
11 analysis.

12 MR. HISER: So your scope from NMED was to use
13 the CTG cost estimates and make a cost analysis.

14 MR. PALMER: That was what we decided to do
15 within the scope of our project.

16 MR. HISER: Okay.

17 And did you discuss that scoping decision with
18 Ms. Kuehn, or was that one internal to ERG?

19 MR. PALMER: That was covered in our regular
20 meetings that we had as a team.

21 MR. HISER: So, Ms. Kuehn, is it your belief
22 that those comments are outside the scope of this
23 rulemaking?

24 You're on mute. Sorry, Ms. Kuehn. Or at
25 least I can't hear you.

1 MS. BISBEY-KUEHN: I -- I don't think that --
2 well, I think we've addressed our position on that in
3 our rebuttal testimony.

4 MS. KATZ: Yeah. And I believe Mr. Palmer
5 stated what it was, which was that those comments were
6 already taken into account by EPA, and so that's why we
7 decided that we weren't going to take them up again and
8 rehash them and relitigate them here.

9 MR. HISER: Okay.

10 And did the -- is the Department taking the
11 same position on other proposals that were made by other
12 parties about expanding or increasing frequencies that
13 were raised in the scope of those prior testimony -- in
14 the EPA proceeding, or are you re-entertaining those
15 here?

16 MS. KATZ: If you can point us to where that
17 is in our testimony where we are willing to go over
18 those comments in the same way, we can address that.

19 MR. HISER: Okay. Fair.

20 MS. KATZ: I don't know who you're referring
21 to.

22 MR. HISER: In page 64 of your testimony,
23 NMOGA cited a Pacsi, Adam & Ferrara study on equipment
24 leak detection and quantification at 67 oil and gas
25 sites in Western United States.

1 Do you remember that, Ms. Kuehn, or
2 Mr. Palmer?

3 MS. BISBEY-KUEHN: Yes.

4 MR. PALMER: Yes, I do.

5 MR. HISER: Okay. Thank you.

6 Didn't NMOGA produce this study in Exhibit 5?

7 MR. PALMER: Yes.

8 MR. HISER: And doesn't that study provide
9 fairly detailed information on leak frequencies for
10 different types of components?

11 MR. PALMER: I believe it does.

12 MR. HISER: Okay.

13 So what part of additional detailed comparison
14 were you requesting that NMOGA provide?

15 MS. KATZ: And can I just clarify? Can I just
16 bring us back to -- I just -- that the -- we have
17 said -- that is Ms. Kuehn said in her presentation that
18 we were not able to go through all the studies of
19 everything, and that is why we were relying on the
20 parties to present that information to the Board, and
21 for the Board to make that decision, and that they -- we
22 weren't advancing anything here about those studies,
23 because we didn't -- we weren't able to process all of
24 them.

25 So I feel like it's probably better for that

1 to be put on through your own witnesses.

2 MR. HISER: So your testimony is we should put
3 that on on our own witness? Is that what you just said?

4 MS. KATZ: On those studies that you included
5 in your -- as your exhibits.

6 MR. HISER: At this point your -- the
7 Department's testimony is that you did -- you and ERG
8 did not particularly review this study.

9 MS. KATZ: (Nods head.)

10 MS. BISBEY-KUEHN: I think I -- I think maybe
11 we reviewed the abstract. I did not go -- I did not
12 review the study in detail.

13 MR. HISER: Okay.

14 Now, in the -- you also cited a Colorado State
15 University study, and I'm sure I'm going to draw the
16 same basic comment from you, but there, however, you
17 went on to say that the study indicates that the study
18 emission factors agree with or are larger than the
19 current greenhouse gas reporting.

20 Doesn't this show some issues with the CTG
21 document that you were relying upon, and, obviously, you
22 evaluated it to that extent, because there's
23 discrepancies between the CTG and Greenhouse Gas
24 Reporting Program?

25 MR. PALMER: That testimony was from the

1 abstract of the study.

2 MR. HISER: So -- okay. So this is -- this.

3 And then, Mr. Palmer, perhaps this is better
4 to you. What is the Greenhouse Gas Reporting Program,
5 and what does it involve?

6 MR. PALMER: The Greenhouse Gas Reporting
7 Program is a mandatory reporting program for generally
8 facilities that have facility-wide emissions greater
9 than 25,000 metric tons per year of CO2 equivalents.

10 MR. HISER: And for the oil and gas industry
11 in specific, does not that reporting program require
12 that you give specific equipment counts for things like
13 connectors or compressors or acid gas units or things
14 like that as part of the reporting program?

15 MR. PALMER: That's correct.

16 MR. HISER: And aren't we as operators
17 required to update that information each year that we've
18 filed those reports, in order to be true, complete and
19 accurate under the federal program?

20 MR. PALMER: That's correct.

21 MR. HISER: So if we look back at the CTG
22 document that was the basis for the ERG report, when was
23 much of that data developed?

24 I'll represent to you that it's 1996.

25 Does that comport with your memory?

1 MR. PALMER: Yes. That's correct. That
2 was -- yes.

3 MR. HISER: So, Mr. Palmer, given that you
4 have two sources of data, one that point dates back to
5 1996 and one that is relatively current, like 2018, at
6 the point you would have been working at this in 2019,
7 why the preference for the CTG document and not the
8 greenhouse gas reporting document?

9 MR. PALMER: Greenhouse gas reporting -- there
10 is no greenhouse gas reporting document. There's a
11 rule. There are data. Those data would need to be
12 synthesized. The CTG has not been withdrawn as guidance
13 by EPA in response to the data that have been collected
14 through the GHGRP.

15 MR. HISER: So --

16 MR. PALMER: So --

17 MR. HISER: Anything else, Mr. Palmer? I
18 don't want to cut you off. I want to make sure we get
19 all of your testimony.

20 MR. PALMER: Within the time frame, scope and
21 resources of this project, we used the CTG.

22 MR. HISER: So, Mr. Palmer, Ms. Kuehn, at the
23 time that the 1996 CTG was done, was there extensive
24 coal bed methane production, or is that all postdated
25 that 1996 review?

1 MS. BISBEY-KUEHN: I'm -- yes. I believe coal
2 bed methane was being extracted in the state at that --
3 during that time.

4 MR. HISER: Okay.

5 And then was there extensive use of what we've
6 heard referred to as unconventional production in 1996,
7 or has that been a more recent development?

8 MS. BISBEY-KUEHN: There was unconventional
9 drilling at that time, as well.

10 MR. HISER: Was it as prevalent as it is now?

11 MS. BISBEY-KUEHN: Probably -- I would say no.

12 MR. HISER: Thank you.

13 So you said that the NM -- NMOGA analysis
14 didn't take into account estimated leak rates, including
15 the presence of large emitters relative to those that
16 were found in the 2016 CTG estimates.

17 Does the 2016 CTG actually include large
18 emitters, or is that information we've heard from other
19 sources?

20 MR. PALMER: I am not sure.

21 MR. HISER: Thank you.

22 And then there's another statement on page 65
23 that NMED has concluded it's beyond the scope of this
24 rulemaking for the Board to conduct a literature review
25 on fugitive emissions.

1 And so I guess once again that goes to your
2 concern that you think we, as industry, need to provide
3 that to you, not that you need to do those or -- that
4 work?

5 MS. BISBEY-KUEHN: So we received extensive
6 testimony from both -- from all stakeholders, and both
7 stakeholder groups cited opposing scientific studies
8 that supported their own position, and it was
9 numerous -- numerous studies supporting their own
10 position. And so it's not -- it's not within the scope
11 of this rulemaking to do a meta-analysis, which is what
12 it would take to review all of those peer-reviewed
13 scientific studies, to come up with new emission factors
14 for New Mexico sources.

15 That is well beyond the scope of this
16 rulemaking, and so we correctly relied upon accepted
17 emission factors and the CTG which is -- provides a
18 model rule for states doing just what we are here doing
19 today.

20 MR. HISER: So your position is that if you
21 have an EPA document additional testimony by other
22 parties is really not relevant to the Board's
23 consideration.

24 MS. BISBEY-KUEHN: No. That's not what I
25 stated.

1 MS. KATZ: And I believe once again we've said
2 that we are asking the parties to put that testimony on
3 for the Board, for the Board's consideration, because we
4 did not have a chance to be able to process all of it.

5 MR. HISER: On page 66 you go back to the Quad
6 0 and Quad 0a and expressed a concern that they may be
7 revised as a basis for not allowing use of Quad 0 or
8 Quad 0a to demonstrate attainment.

9 Haven't you already addressed that concern,
10 though, Ms. Kuehn, with provisions that you made in
11 Section 20.2.50.112, I think it's C -- A.(10), which
12 freezes the date of those programs as of the effective
13 date?

14 MS. BISBEY-KUEHN: I think you're asking sort
15 of two different questions.

16 We don't agree that Quad 0 and Quad 0a are
17 effectively controlling fugitive emissions since we are
18 proposing to go beyond those federal requirements, which
19 is what we are required to do to -- in order to reduce
20 VOC emissions from sources.

21 MR. HISER: Not to contradict you, Ms. Kuehn,
22 but your statement is that your -- that the purpose of
23 this is to provide statewide reg that is not subject to
24 changes that occur at the federal level.

25 MS. BISBEY-KUEHN: We were highlighting that

1 federal regulations can have -- and we just went through
2 a new administration rolling back federal requirements,
3 and so formalizing those requirements in the state rule
4 establishes certainty about what those inspection
5 frequencies are, and removes the possibility that new
6 federal administrations can roll back those standards.

7 MR. HISER: And my question to you is didn't
8 you solve that issue by the change you made to
9 Section 112A.(10)?

10 MS. BISBEY-KUEHN: We didn't for those
11 facilities where we think it's an acceptable level of
12 frequency, but that is where we're -- we've only agreed
13 to that for one specific type of operation within this
14 sector, and it's not appropriate for those remaining
15 upstream and midstream operations.

16 MR. HISER: Okay.

17 And then this looks like it's a Mr. Palmer
18 question.

19 On the bottom of page 67 of the rebuttal
20 testimony, there are a series of discussions about OGI
21 and Method 22 instrument monitoring at these facilities.

22 Why were you recommending at that time these
23 provisions, Mr. Palmer?

24 MR. PALMER: Which are you referring to
25 specifically?

1 MR. HISER: The bottom of page 67, lines 13
2 through 23 in particular. It says NMED is proposing
3 changes to the LDAR inspection frequencies and emission
4 thresholds to align with Colorado Reg 7, and accepting
5 NMOGA's proposal regarding gas processing plants and
6 gathering and boosting stations. If that refreshes your
7 memory.

8 MR. PALMER: I believe I'm going to defer to
9 Ms. Kuehn on that, because this is part of our rebuttal
10 testimony that we've gone back to the earlier version of
11 the rule. And so --

12 (Simultaneous discussion.)

13 MR. HISER: -- at the rebuttal time and the
14 rationale that was advanced by you and Ms. Kuehn for
15 this provision.

16 MR. PALMER: I'm going to just say that we are
17 going back to the earlier version of the rule.

18 MR. HISER: Madam Hearing Officer, I've asked
19 a pretty clear question, and I think it's clear the
20 witness is not answering.

21 HEARING OFFICER ORTH: So I remember Ms. Kuehn
22 earlier referencing the fact that they had simply
23 reverted.

24 I'm sorry. Did -- do I misunderstand that
25 you're asking a different question of Mr. Palmer?

1 MR. HISER: I'm asking the question for why
2 they switched to the position in their rebuttal, which
3 I'm entitled to know, because that's their testimony in
4 rebuttal. They can change their mind, but I'm entitled
5 to know the rationale for why they moved at that point
6 in time.

7 HEARING OFFICER ORTH: All right.

8 Mr. Palmer, can you answer the question?

9 MS. KATZ: And that's actually a question for
10 Ms. Kuehn.

11 So can Ms. Kuehn please answer that question?

12 MR. HISER: Absolutely. If Ms. Kuehn is more
13 appropriate, Ms. Katz, I'm fine with --

14 (Simultaneous discussion.)

15 MS. KATZ: She's already stated it, but she
16 can state it again.

17 (Simultaneous discussion.)

18 MS. BISBEY-KUEHN: We will state it again.

19 We were attempting to provide a middle ground
20 proposal for the Board's consideration that balance the
21 two competing and opposing sets of information that was
22 provided by -- by stakeholders.

23 MR. HISER: Okay.

24 So you say you were trying to balance.

25 I'd like to understand what the balancing was

1 that you were considering as you were making that
2 decision.

3 MS. BISBEY-KUEHN: That we have two opposing
4 stakeholder groups providing sets of scientific data
5 that support their own position, that either -- so we
6 have one stakeholder group saying that we have
7 overestimated the costs, radically overestimated the
8 costs, and then the leak rates are far, far fewer than
9 what EPA believes they are and what the Department
10 believes they are, and then a competing set of
11 stakeholder positions that say we have radically
12 underestimated the cost of these, and that the leak
13 rates are much, much, much higher, orders of magnitude
14 higher than what EPA and the Department believes they
15 are.

16 And so between those two opposing sets of
17 information, data, cost analysis, we were attempting to
18 strike a balance between those two competing data sets.

19 MR. HISER: Okay.

20 And at least at the time of the rebuttal, that
21 balance had shifted in favor of slightly less frequent
22 LDAR; is that correct?

23 MS. BISBEY-KUEHN: It shifted. Yes.

24 MR. HISER: Okay.

25 This is perhaps a question for -- well, it

1 might be for either one of you. It's on page 68 of your
2 rebuttal.

3 You state that NMED is updating the emissions
4 reductions and cost estimate spreadsheet to reflect the
5 revised frequencies and will submit the updated
6 spreadsheet prior to the hearing to allow time for the
7 other parties to review.

8 What exhibit number is that, that was updated
9 and submitted to the other parties?

10 MS. BISBEY-KUEHN: I'm sorry. What --

11 MR. HISER: It may be a question for you.

12 MS. KATZ: And I don't believe -- I believe
13 once we went back to the previous proposal, then we
14 wouldn't have been updating those at --

15 MR. HISER: Okay.

16 So that was not -- you didn't -- you didn't do
17 it because you reverted, is your testimony?

18 MS. BISBEY-KUEHN: Correct.

19 MR. HISER: Thank you, Ms. Kuehn, for that.

20 And then at the -- throughout your testimony
21 you state in a couple places, and I think the one here
22 is on page 68, while NMED is proposing to revise the
23 monitoring frequencies, NMED will consider further
24 testimony provided by any of the parties that would
25 support a recommendation that the Board adopt different

1 frequencies and/or cost effectiveness estimates; is that
2 correct?

3 MS. BISBEY-KUEHN: Yes.

4 MR. HISER: Except that you've moved to
5 exclude all the NMOGA testimony on those issues, more or
6 less; is that true?

7 MS. KATZ: Objection.

8 MS. BISBEY-KUEHN: No.

9 MS. KATZ: We didn't move to exclude all the
10 testimony, mischaracterizing our --

11 (Simultaneous discussion.)

12 MR. HISER: Thank you.

13 Madam Hearing Officer, that's all my questions
14 for Ms. Kuehn and Mr. Palmer.

15 HEARING OFFICER ORTH: Thank you very much,
16 Mr. Hiser.

17 Are there other parties with questions of the
18 Department panel? Please turn on your camera.

19 I don't see anyone.

20 In that case, we will turn to questions from
21 the Board.

22 While I'm doing that, in the event you're an
23 attendee on this platform and have a question, please
24 reach out through the chat.

25 Madam Chair, do you have questions?

1 CHAIR SUINA: Thank you, Madam Hearing
2 Officer.

3 And I appreciate the panel and discussion and
4 the cross.

5 At this time I don't have any additional
6 questions.

7 HEARING OFFICER ORTH: Thank you.
8 Vice-Chair Trujillo Davis.

9 VICE-CHAIR TRUJILLO DAVIS: I don't have any
10 additional questions, and I do appreciate the -- the
11 discussion up until this point. Thank you.

12 HEARING OFFICER ORTH: Thank you.
13 Member Cates?

14 Member Bitzer?

15 MEMBER BITZER: I was waiting for Demi Moore,
16 Jack Nicholson and Tom Cruise to come on and say "You
17 can't handle the truth!"

18 Anyway, no, I don't have any questions, but I
19 enjoyed the lively of that one -- the lively discussion.
20 Thank you.

21 HEARING OFFICER ORTH: Thank you.
22 Member Garcia?

23 MEMBER GARCIA: No questions. Thank you.

24 HEARING OFFICER ORTH: Thank you.

25 And Member Honker.

1 MEMBER HONKER: No questions. Thank you.

2 HEARING OFFICER ORTH: All right. Thank you.

3 Ms. Katz, will there be any redirect?

4 MS. KATZ: No, nothing from me at this time.

5 Thank you, Madam Hearing Officer.

6 HEARING OFFICER ORTH: All right. Thank you

7 so much, Ms. Kuehn and Mr. Palmer.

8 Let's see. It is about five after 12:00.

9 I wouldn't necessarily want to put anyone in
10 the position of just needing to put on 10 minutes of
11 testimony. We would be going from here -- let me just
12 see where we'd be going from here.

13 We would be going to Mr. Smitherman.

14 MR. HISER: Madam Hearing Officer, I would
15 need to check with Mr. Smitherman about our effort to
16 rejuggle our slides. So it might be better to start
17 with a different industry or other party witness while
18 we're trying to accommodate your ruling from earlier
19 today.

20 HEARING OFFICER ORTH: All right. Well,
21 let's -- you know what? Let's spend just a little more
22 time on -- on that, then, and then we'll break for lunch
23 and come back at 1:00.

24 And, please, any counsel who have something to
25 offer here.

1 We do have an e-mail from Ms. Fox, sent a
2 little more than an hour ago, identifying the slides
3 that NMED, EDF and Clean Air Advocates believe reflect
4 information from the two slides with data that was
5 offered, in my opinion, late. Those slides are 10, 11,
6 29, 31, 32, 34, 35, 38, 46, 47, 48, 50 and 52 through
7 56.

8 Now, as I understand, again just to summarize
9 my feelings about it, I believe that they should be
10 excluded from the Board's consideration because they
11 reflect data that NMOGA has had since July that was
12 offered on the afternoon of the fourth day of hearing.

13 Your counsel, Ms. Soloria, advised you to hear
14 the evidence and to take up the question of whether it
15 should be, A, excluded from deliberations, or, B,
16 included with perhaps an opportunity for the parties who
17 would be prejudiced by the inclusion of the data in the
18 record without an opportunity to rebut it, thus
19 necessitating a reopening of the record. But again the
20 Board would not be reviewing the exclusion from
21 deliberations -- oh, yes, until the beginning of
22 deliberations.

23 So it's -- let me put it this way. I guess it
24 sounds as though we would proceed, Mr. Hiser, and the
25 other counsel, with the understanding that the Board

1 would not be deciding on exclusion until the beginning
2 of their deliberations.

3 So if Ms. Soloria has heard this summary and
4 I've said it wrong, I would invite her to leap back onto
5 the screen. Otherwise I'll accept counsel's comments.

6 MS. SOLORIA: Madam Hearing Officer, this is
7 Counsel Soloria.

8 And I agree that you have summarized my advice
9 and what we discussed accurately. Thank you.

10 HEARING OFFICER ORTH: All right. Thank you.

11 Ms. Fox, do you have an observation?

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

13 I have nothing to add, except that I would
14 just again emphasize that what NMOGA would do is make a
15 proffer of evidence and not give the evidence itself.

16 HEARING OFFICER ORTH: All right. Thank you.

17 Ms. Soloria, would you leap back on, please,
18 and clarify your advice there for the Board.

19 MS. SOLORIA: Yes. My -- as I stated earlier,
20 my understanding and my advice for the Board would be at
21 this juncture to consider a proffer of the evidence. I
22 do believe that, as stated by NMOGA's counsel, they
23 should have a reasonable opportunity at this point to
24 ready that proffer, for the presentation through their
25 witness, and that it would be considered as a proffer

1 right now. The Board would be exposed to it, but they
2 would make the ultimate decision whether or not to
3 consider it as evidence at the top of their
4 deliberations.

5 HEARING OFFICER ORTH: Okay.

6 Anything to add, Ms. Katz?

7 MS. KATZ: No, nothing from me.

8 HEARING OFFICER ORTH: Mr. Hiser?

9 MR. HISER: Madam Hearing Officer, are you
10 asking me to explain what Mr. Smitherman would proffer,
11 or are you asking Mr. Smitherman to briefly state what
12 he would state about the slides? It's little bit
13 unclear to me whom you're asking to do that.

14 HEARING OFFICER ORTH: All right. What I'm
15 trying to do is honor Ms. Soloria's role in advising the
16 Board.

17 Ms. Soloria, what would you advise?

18 MS. SOLORIA: I would advise that it be done
19 at this point through counsel. I think it's probably a
20 clearer distinction between a proffer versus what is
21 evidence if it's done through counsel versus a witness.
22 So I -- in that sense I retract what I think I was
23 unclear a minute ago. And I do think that's more in
24 keeping with it being a proffer, you know, in any other
25 case rather than a presentation of -- of admitted

1 evidence.

2 HEARING OFFICER ORTH: All right. Thank you.

3 That's what I -- I would have offered, as
4 well.

5 Any questions about any of this?

6 MR. HISER: So, Ms. Orth, I don't believe that
7 we necessarily agree with Ms. Fox's rather
8 latitudinarian approach of your ruling earlier today.
9 There's a number of items that she's striking that are
10 from Mr. Smitherman's direct testimony where he refers
11 to facts and figures that are set forth in the NMOGA
12 comments, which are in the administrative record, or you
13 call the record proper, and where that needs to be
14 considered in light of what he said in order to
15 understand what Mr. Smitherman's testimony is.

16 There are other parts of her testimony which I
17 think we can do a proffer on, and I'm happy to do that,
18 I guess, at this time as best I can, given that we've
19 been in hearing the whole time since I was asked to do
20 this.

21 HEARING OFFICER ORTH: Okay. Thank you,
22 Mr. Hiser.

23 So it sounds as though there might be, then,
24 three categories of evidence coming in through
25 Mr. Smitherman, the evidence and testimony that is not

1 objectionable; the evidence and testimony that should --
2 to the extent it merely reflects the new data from the
3 spreadsheets should simply be made part of the proffer
4 through your lips, Mr. Hiser; and then perhaps a third
5 category in which if you want to point to
6 Mr. Smitherman's direct testimony, perhaps we should
7 just take it subject to objection.

8 Because I don't want to clutter up the record
9 while Mr. Smitherman is speaking with a lot of argument.
10 I'd like to move through this.

11 MR. HISER: Okay. So my understanding is --
12 and I will ask Ms. Katz, because I think she's speaking
13 to slides 10 and 11, and I'm trying to look at what the
14 slides are at the same time.

15 This is our example of the model plant in
16 response to the question, but -- so on this I assume
17 that you're looking for a proffer, Ms. Katz; is that
18 correct?

19 MS. KATZ: Yeah. I believe that the -- yeah,
20 the proffer would be right as Ms. Soloria stated. Those
21 are slides that we identified as containing new
22 information that we haven't seen previously.

23 MR. HISER: Okay. So our proffer on this is
24 that in the direct testimony there were tables that
25 provided information about a NMOGA model plant. In the

1 rebuttal there were questions about what that NMOGA
2 model plant is. In NMOGA's testimony in Exhibit -- I
3 believe it's 27, NMOGA provided the greenhouse gas
4 reporting data.

5 Mr. Smitherman's testimony would have
6 explained that he took that data in Exhibit 27, divided
7 by the number of well counts, divided the number of
8 wells by two, to calculate the number of facilities, and
9 then divided the number of pieces of equipment by the
10 number of facilities, to come up with a so-called
11 Greenhouse Gas Reporting Program model plant, which is
12 not very different, honestly, from the -- it's a little
13 bit different from the CTG model.

14 HEARING OFFICER ORTH: Okay. Thank you.

15 I'm wondering, though, if it would be helpful
16 to break for lunch, Mr. Hiser.

17 MR. HISER: Yeah. I mean, would it be
18 helpful -- we could put together -- maybe Ms. Fox could
19 provide a little bit more explanation behind why she
20 thinks certain slides -- I think we understand 52 to
21 56 -- Tannis, Ms. Fox, why -- your objections are to
22 those, but -- and I think we understand 10 to 11, but we
23 would be helped if you could provide maybe a line about
24 what the questions are about the other slides, so that I
25 can tailor it more specifically to what your concern is.

1 MS. FOX: That sounds good, Mr. Hiser.

2 We collaborated with NMED and Mr. Palmer on
3 this list, and so we'll provide you that information.

4 MR. HISER: I think our particular questions
5 are on slides 29 through 46, if that -- yeah, between
6 those two -- between 29 and 46 are the ones that we had
7 the most question about what the concern was.

8 And so, Madam Hearing Officer, why don't we
9 postpone this to the end of the day so that we don't
10 waste any more hearing time, and we'll move forward, and
11 I may come back and say that there are a couple slides
12 in the 29 to 46 range which we think are in the direct,
13 and maybe we can hash that out then, and then on the
14 proffers we can push all that back to the end of the
15 hearing, so we're not using people's feisty period when
16 they're awake on those issues --

17 HEARING OFFICER ORTH: All right.

18 MR. HISER: -- or if that makes sense.

19 HEARING OFFICER ORTH: It does make sense.

20 Thank you, Mr. Hiser.

21 It's 12:16. Let's break until 1:00. We'll
22 return for public comment and proceed as you've just
23 described.

24 Thank you, all.

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

1 (Proceedings in recess from 12:16 p.m. to
2 1:00 p.m.)

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

5 Good afternoon.

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

9 We are in day eight of the hearing and have
10 reached the 1:00 p.m. public comment session.

11 I will call expressly on those of you who
12 reached out to the Board administrator, Pam Jones. If
13 you are on the platform to offer public comment and did
14 not reach out to the administrator, I'm still happy to
15 take your comment. Reach out, please, in the chat. And
16 if you have any trouble with the chat function, which is
17 enabled for everyone, please reach out to Pam at (505)
18 660-4305.

19 I'll call on you in this order, Harold Pope,
20 Rebecca Long, George Greenlee, Elizabeth Ortega, Lori
21 Walters, Shelley Mann-Lev, Patricia Stern, Jonathan Sena
22 and Jesse Barnes.

23 Three things about public comment. It is
24 taken under oath, as with all testimony before the
25 Board, it is taken by audio, not video, and it's limited

1 to five minutes.

2 So let me find Senator Pope first.

3 All right. I am not seeing Senator Pope.

4 Let me go to Commissioner Long.

5 Commissioner Long, I've unmuted you.

6 Can you hear me?

7 MS. LONG: Good morning.

8 Yes, ma'am. I appreciate you.

9 Can you hear me okay?

10 HEARING OFFICER ORTH: Yes. Your voice is
11 coming through clearly.

12 If you would please spell your name for the
13 transcript.

14 MS. LONG: It's R-E-B-E-C-C-A L-O-N-G.

15 HEARING OFFICER ORTH: Thank you very much.

16 Raise your right hand.

17 Do you swear or affirm to tell the truth?

18 MS. LONG: I do, yes.

19 HEARING OFFICER ORTH: Thank you.

20

21

22

23

24

25

1 REBECCA LONG

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

4 PUBLIC COMMENT

5 HEARING OFFICER ORTH: I'm going to start your
6 five minutes now.

7 MS. LONG: Okay. Thank you.

8 I appreciate this opportunity today.

9 So I am the Lea County Commission Chair, and
10 my name is Rebecca long.

11 I just want to give a few comments of what the
12 oil and gas industry does for my county.

13 Lea County has about 75,000 people, and oil
14 and gas provides over 18,000 good-paying jobs. Oil
15 and -- oil and gas production, it's the foundation of
16 New Mexico's economy. We all know that. And it's by
17 far the largest employer in Southeastern New Mexico.

18 Some of the particulars here are we have 844
19 teachers in 37 schools in Lea County. The oil and gas
20 industry provides over 46 million a year to fund our K
21 through 12 schools, and it also provides 2.2 million in
22 funding for higher education in Lea County. So you can
23 see that our education system is highly dependent on the
24 oil and gas industry.

25 But we also have 40 megawatts of solar and

1 50 megawatts of wind energy. So we do embrace all of it
2 here in Lea County.

3 You know, our small businesses depend on sales
4 of their goods and services to the folks that work in
5 the oil and gas industry. So again, you know, our whole
6 economy is -- surrounds the oil and gas industry here.
7 Last year oil and gas provided 2.8 billion to the state
8 budget and 1.4 billion for public schools and higher
9 education. We all know that we are a state that
10 benefits greatly from our natural resources.

11 So I guess today what I really want to say,
12 besides give you a little bit of what's going on in Lea
13 County, you know, we all want a clean environment. We
14 live here, and that's very, very important to us. And
15 what I'm asking the Board to consider is regulation that
16 allows the oil and gas industry to continue providing
17 this large volume of jobs while investing in new
18 technology and equipment that promotes a clean
19 environment.

20 Flexible, regulatory approaches recognize and
21 encourage the adoption and development of creative
22 solutions to reduce emissions, and we are all about
23 reducing emissions, and we -- we are good partners, and
24 we want to continue to be good partners with everyone in
25 New Mexico.

1 So I appreciate your time today. Thank you.

2 HEARING OFFICER ORTH: Thank you, Commissioner

3 Long.

4 I believe I just saw Senator Pope join the
5 platform. So we'll go back to --

6 Senator Pope, can you hear me?

7 MR. POPE: Yes, I can.

8 HEARING OFFICER ORTH: I can hear you clearly.

9 If you would please spell your name for the
10 record.

11 MR. POPE: H-A-R-O-L-D, last name Pope,
12 P-O-P-E, and J-R for Junior.

13 HEARING OFFICER ORTH: Thank you very much.

14 If you would raise your right hand.

15 Do you swear or affirm to tell the truth?

16 MR. POPE: I do.

17 HEARING OFFICER ORTH: Thank you.

18 HAROLD POPE, JR.

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

21 PUBLIC COMMENT

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

24 MR. POPE: Good afternoon.

25 My name is Senator Harold Pope, Junior,

1 representing District 23 In Northwest Albuquerque in
2 Bernalillo County.

3 I would like to thank the Environmental
4 Improvement Board for the opportunity to provide
5 comment.

6 I would like to give full support of Governor
7 Michelle Lujan Grisham's call for nation-leading oil and
8 gas pollution rules. In order for this to become a
9 reality, though, the EIB must strengthen the New Mexico
10 Environment Department's proposed ozone precursor rules
11 to protect those living closest to development.

12 Oil and gas pollution are negatively impacting
13 our air, water and health, but rural communities, tribal
14 communities, children and even our elderly are
15 especially at risk. I think there's around 130,000 New
16 Mexicans that live within about a half mile of oil and
17 gas development, including communities of color in the
18 BIPOC community, which disproportionately impact them
19 with climate change and air pollution.

20 Leaks due to equipment malfunction and lack of
21 maintenance account for about 70 percent of oil and gas
22 industry's emissions statewide. I am encouraged by the
23 in fact that leading producers at the federal and state
24 level are standing up to support firm regulations that
25 cut pollution and methane and protect our communities.

1 This will ensure that New Mexico's regulations lead the
2 nation, which is also important when the EPA considers
3 federal rules.

4 Setting strong rules at the state level sets a
5 good bar for forthcoming federal methane rules that can
6 help protect New Mexicans, even from states like Texas
7 whose regulations are limited. New Mexico can lead and
8 show the nation how to protect our air, water and
9 health.

10 We'd like to commend the NMED once again for
11 putting forward a strong proposal. I would propose
12 adding three critical improvements that the EIB should
13 make to protect communities and address major sources of
14 pollution.

15 One, I'd like to see more protections to those
16 living closest to development by requiring more frequent
17 inspections to find and fix leaks.

18 Number two, that we ensure strong requirements
19 for operators to control pollution during the completion
20 of an oil and gas well, as well as when they redevelop
21 these wells.

22 And finally, three, strengthen requirements to
23 cut pollution from pneumatic controllers that are used
24 in oil and gas production.

25 Many of these emission leaks are avoidable,

1 and we can avoid many of the serious health problems
2 that many in our frontline communities are facing,
3 especially those in the BIPOC communities. Emissions
4 from oil and gas operations can take toxic, even deadly
5 gases like hydrogen sulfide, toluene, xylene and
6 benzene.

7 Methane leaks also release volatile organic
8 compounds, which can also be building blocks for many of
9 the ozone pollution that we're really concerned with,
10 which can also harm our respiratory system, trigger
11 asthma attacks and worsen emphysema.

12 I speak to you today not only as an elected
13 official, but also as a voice for our youth that is
14 asking us to do more to protect our environment and
15 health.

16 Thank you once again for the work that you're
17 doing and giving me this opportunity to speak.

18 HEARING OFFICER ORTH: What'd I just do?

19 Thank you, Senator.

20 Excuse me.

21 Let me go to George Greenlee.

22 I don't see Mr. Greenlee by name. I think I
23 saw a call-in user.

24 Caller 13, please tell us your name.

25 Caller 13?

1 All right. That's the only call-in user.

2 I'll move, then, to Elizabeth Ortega, see if

3 Ms. Ortega is on the platform.

4 No.

5 And then Lori Walters.

6 Oh, I see Ms. Walters.

7 Ms. Walters, can you hear me?

8 MS. WALTERS: Yes, I can.

9 Can you hear me?

10 HEARING OFFICER ORTH: Yes. I can hear you

11 clearly.

12 If you would please spell your name.

13 MS. WALTERS: It's L-O-R-I, and my last name

14 is W-A-L-T-E-R-S.

15 HEARING OFFICER ORTH: Thank you.

16 And raise your right hand.

17 Do you swear or affirm to tell the truth?

18 MS. WALTERS: Yes, ma'am.

19 HEARING OFFICER ORTH: Thank you.

20 LORI WALTERS

21 having been first duly sworn or affirmed, gave

22 public comment as follows:

23 PUBLIC COMMENT

24 HEARING OFFICER ORTH: I'll start your five

25 minutes now.

1 MS. WALTERS: Okay. Thank you again.

2 My name is Lori Walters, and I work for a
3 small company called San Juan Resources, whose main
4 operations are located in New Mexico.

5 And my background is I've been working in the
6 financial accounting side of oil and gas for over 25
7 years.

8 I'm speaking here today to provide a viewpoint
9 from a small business perspective and US citizen of the
10 current regulations on methane emissions. I am
11 concerned that additional administrative burden will
12 have a major impact on small business and may ultimately
13 put many oil -- small oil and gas operators in a
14 situation where they may need to prematurely plug and
15 abandon wells due to regulations or costly equipment
16 upgrades and additional administrative and reporting
17 requirements.

18 According to the New Mexico Tax Research
19 Institute, production -- oil production could drop by
20 13 percent, and natural gas production could drop by
21 23 percent. This would greatly impact New Mexico
22 budgets with decreased revenue and increase unemployment
23 for oil field workers.

24 Every citizen wants a clean environment, and I
25 think the US does a pretty good job of keeping a clean

1 environment in the US. These type of mandates in New
2 Mexico and the US do not even consider the methane
3 emissions from foreign developing countries like China
4 and Russia. Since foreign countries manufacture many of
5 our products used in the US with limited environmental
6 regulations, the US is in effect transferring their
7 consumed methane emissions to foreign countries.

8 This is really a US consumption problem. US
9 manufacturers like oil and gas companies are at a huge
10 disadvantage compared to these foreign companies since
11 the US companies are required to install costly
12 equipment and implement additional regulation
13 procedures. There is an ultimate price that will be
14 paid by the US consumer, primarily the lower and middle
15 class, with higher oil and gas prices and dependence on
16 foreign countries for critical energy supply.

17 As a parent, I want my children to do better
18 than me. I would guess that's the American dream. I am
19 deeply concerned these type of mandates and the rising
20 US debt will ultimately cripple this American dream.

21 I would like to conclude as an employee of a
22 small business. The small business exemption is
23 critical in any final rule. Larger businesses can
24 implement certain regulations more readily because they
25 can purchase equipment in large quantities, potentially

1 discounted under a contract. Large businesses can hire
2 additional personnel to help in reporting such mandates.

3 For a bis -- for a small business who operate
4 under conservative budgets, these type of mandates could
5 ultimately cripple their business model.

6 Small businesses are so critical to the US and
7 New Mexico economies that a crippling of these
8 businesses could have far-reaching devastating
9 consequence to the economy as a whole. Small businesses
10 are like the small cells in the human body. Each cell
11 supports the body as a whole, just as small businesses
12 support the general overall economy.

13 On a personal note, I have seen small
14 business -- the small business I work at support me
15 while I was sick with cancer. Although small businesses
16 are exempt under the mandates when it comes to family
17 leave, my company did everything they could to support
18 me during this time. This is what small business do.
19 They support their employees, and they support their
20 local economies.

21 Instead of the local government issuing
22 burdening regulations on small business, it's time for
23 governments like New Mexico to support small business
24 and its citizens who work for these companies. I feel
25 the American dream is at stake.

1 That's all I have to say.

2 Thank you.

3 HEARING OFFICER ORTH: Thank you, Ms. Walters.

4 We go now to Shelley Mann-Lev.

5 I have unmuted you.

6 MS. MANN-LEV: Thank you so much.

7 My name is Shelley Mann-Lev.

8 Can you hear me?

9 HEARING OFFICER ORTH: Hold on. Hold on.

10 Would you spell your name, please.

11 MS. MANN-LEV: Sure. Shelley, S-H-E-L-L-E-Y,

12 M-A-double-N-hyphen-L-E-V-as-in-Victor.

13 HEARING OFFICER ORTH: Thank you.

14 And raise your right hand.

15 Do you swear or affirm to tell the truth?

16 MS. MANN-LEV: I do.

17 HEARING OFFICER ORTH: Thank you.

18 SHELLEY MAN-LEV

19 having been first duly sworn or affirmed, gave

20 public comment as follows:

21 PUBLIC COMMENT

22 HEARING OFFICER ORTH: I'll start your five

23 minutes now.

24 MS. MANN-LEV: Thank you so much.

25 And thank you so much to the Environmental

1 Improvement Board who is considering this testimony and
2 making these important decisions.

3 My name is Shelley Mann-Lev, and I have the
4 honor and privilege of serving as the president of the
5 New Mexico Public Health Association. The mission of
6 the New Mexico Public Health Association is to promote
7 public health practice, policies and systems that
8 support health equity in New Mexico.

9 We have over 500 members, public health
10 practitioners and students, who are all deeply committed
11 in their work and education lives to supporting the
12 well-being of all New Mexicans and to address
13 disparities, health equity issues that negatively impact
14 those who are most vulnerable and underresourced.

15 The issues at stake here, ozone, pollution,
16 methane emissions, deeply, deeply impact our communities
17 and impact health equity in New Mexico. I know you've
18 heard many statistics and that you are all aware of, you
19 know, the large numbers of New Mexicans who are directly
20 impacted, and, of course, why you are present here and
21 doing this work, that we are dealing with emissions and
22 compounds that have both immediate health impacts and
23 long-term health impacts for everyone.

24 Those communities that are most immediately
25 impacted, the children and elderly and communities of

1 color, black, indigenous, Hispanic, Latinx
2 communities -- many people in those communities already
3 are suffering from those health impacts, and we have got
4 to as a state, as a nation, as a world do what --
5 everything that we can to minimize those harmful impacts
6 and protect the well-being and health of those who are
7 most vulnerable.

8 Ozone, methane emissions -- we know that
9 methane in particular has one of the strongest impacts
10 on global climate change, the global climate emergency
11 that we find ourselves in today.

12 I want to again, as one of the other people
13 who testified, speak to and appreciate the work that's
14 been done by Governor Lujan Grisham and the New Mexico
15 Environmental Department and urge that we take this
16 critical opportunity to do all that we can in terms of
17 our rules and regulations to reduce the major sources of
18 pollution and to add in the three things I've heard you
19 mention just before, as well.

20 To protect those living closest to development
21 by requiring more frequent inspections to find and fix
22 leaks. Rules that don't have inspections aren't
23 necessarily followed. It's difficult to change
24 long-standing behaviors and practices, and so we need
25 both inspections and enforcement to ensure that the

1 rules that we adopt will, in fact, be implemented.

2 The second area is to ensure that strong
3 requirements are in place for all operators. It needs
4 to be an equitable playing field to control pollution
5 during the completion of an oil or gas well, as well as
6 when they redevelop an existing well.

7 And finally, the third area, opportunity to
8 strengthen the current requirements is to cut pollution
9 from pneumatic controllers that are used in oil and gas
10 production. These devices are the second largest source
11 of oil and gas methane emissions in New Mexico, and we
12 need to in New Mexico for the Environment Department to
13 require companies to inspect these pneumatics for leaks
14 and accelerate the timeline to retrofit equipment with
15 zero bleed or zero emission pneumatic controllers.

16 As a dedicated public health professional who
17 has spent decades in New Mexico caring for the
18 well-being of children in particular and all New
19 Mexicans, I know firsthand how much our communities have
20 suffered from air pollution and climate change.

21 I want to thank you again for considering how
22 we can provide even stronger leadership for our state
23 and for our country, especially for those who are most
24 vulnerable.

25 Thank you so much for your attention.

1 HEARING OFFICER ORTH: Thank you very much,
2 Ms. Mann-Lev.

3 I'll look for Patricia Stern next.

4 I don't see Patricia Stern.

5 Jonathan Sena. Excuse me. Jonathan Sena.

6 Mr. Sena, I've unmuted you.

7 Can you hear me?

8 MS. SENA: Yes, Ms. Orth.

9 Thank you so much for your time.

10 HEARING OFFICER ORTH: Thank you.

11 If you would spell your name, please.

12 MS. SENA: Yes, ma'am. Jonathan,

13 J-O-N-A-T-H-A-N, Sena, S-E-N-A.

14 HEARING OFFICER ORTH: Thank you.

15 And if you would raise your right hand.

16 Do you swear or affirm to tell the truth?

17 MS. SENA: Yes, ma'am, I do.

18 HEARING OFFICER ORTH: Thank you.

19 JONATHAN SENA

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

22 PUBLIC COMMENT

23 HEARING OFFICER ORTH: I'll start your five
24 minutes now.

25 MS. SENA: Thank you, Chair.

1 And I want to thank the Members of the Board
2 for this time. We appreciate your leadership and your
3 due diligence in this process.

4 Again my name is Jonathan Sena, and I live in
5 Hobbs, New Mexico. I'm a youth pastor at a local church
6 and a county commissioner here in Lea County.

7 I was born and raised in New Mexico, and I am
8 native New Mexican on my father's side. My family has
9 lived and worked in New Mexico for generations,
10 literally hundreds of years. New Mexico is my home.

11 The oil and gas industry provides me through
12 our funding from parishioners at church and to the
13 county. It provides for my family and provides for me.
14 And I'm so grateful for that. And it provides for so
15 many people in Lea County and throughout New Mexico
16 directly and in my case indirectly.

17 The oil and gas industry pays for the roads
18 that I use to drive my daughter, Gavila, to preschool
19 during the day, and it pays for the parks where I take
20 her to play. The oil and gas industry pays for the
21 diverse police officers, firefighters, county deputies,
22 EMS staff members who serve to keep my family safe every
23 day.

24 The industry supports education, supports
25 first responders and supports health care in our

1 community. The industry is filled with people who --
2 who want to work hard, are used to good, solid, level
3 regulations. They want to do it right. And I -- that's
4 what I see. And I see that the oil and gas industry
5 provides jobs for every demographic of our community,
6 especially the Latino community.

7 Our people are hard workers and are grateful
8 for the good salaries they receive from the oil and gas
9 industry. This in turn provides tax dollars for other
10 jobs, other forms of economic development in our
11 community.

12 In Lea County we do not have the mountains and
13 rivers that are available in other parts of New Mexico.
14 What we do have is extraordinary people, and we have
15 also the support of the oil and gas industry to provide
16 jobs, tax dollars to support teachers and police
17 officers and firefighters. The oil and gas industry
18 helps us to build schools and parks and opportunities
19 for our families to move from poverty to
20 self-sufficiency through good jobs.

21 Now, look, I genuinely believe that our state
22 can have fair rules while still reducing emissions and
23 continuing to strengthen our state's biggest and most
24 successful industry. It's important to get feedback
25 from oil and gas producers.

1 Look, we don't want unintended consequences
2 like shutting -- shutting in significant production
3 volumes or even putting small producers out of business.
4 These unintended consequences can harm minority-owned
5 small business owners, people who are my friends and
6 family members and people I go to church with.

7 Oil and natural gas production is a major part
8 of the foundation for our state's economy, and I believe
9 it's critical that the state rules permit the oil and
10 gas industry to continue to grow, create jobs for
11 families, to attract investment and to provide critical
12 funds for our state budget, public schools, while
13 absolutely still making sure our families are safe.

14 The oil and gas industry is proactively
15 working to limit emissions of methane and other
16 greenhouse gases. Producers are investing. I see it.
17 Producers are investing in new technology and equipment
18 and adopting the leading best practices in different
19 operations.

20 And I believe that flexible regulatory
21 approaches recognize and encourage this adoption in this
22 type of development in regard to creative solutions to
23 reduce emissions.

24 So I want to thank you so much for giving me
25 the opportunity to speak today. I appreciate your time.

1 I appreciate your leadership and your service to the
2 State of New Mexico.

3 Thank you so much.

4 HEARING OFFICER ORTH: Thank you, Commissioner
5 Sena.

6 Let's see. We'll go next to Jesse Barnes.

7 I've unmuted you.

8 Can you hear me?

9 MR. BARNES: Yes. Yes.

10 HEARING OFFICER ORTH: Oh. Terrific.

11 Hello. If you would spell your name, please.

12 MR. BARNES: J-E-S-S-E B-A-R-N-E-S.

13 HEARING OFFICER ORTH: Thank you.

14 And raise your right hand.

15 Do you swear or affirm to tell the truth?

16 MR. BARNES: I do.

17 HEARING OFFICER ORTH: Thank you.

18 JESSE BARNES

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

21 PUBLIC COMMENT

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

24 MR. BARNES: Thank you for this opportunity.

25 My name is Jesse Barnes. I'm a family

1 medicine physician currently based in Albuquerque, and
2 I've spent the last 14 years working all around New
3 Mexico, providing primary care.

4 For the last three years, I've been a member
5 of a new group called Primary Care Advocates for Healthy
6 Communities, along with a couple dozen of my fellow
7 primary care providers also with experience working all
8 around New Mexico. We started the group because we have
9 discovered in the course of our work that there are
10 issues much larger than what we can address during our
11 clinical visits with patients that have a huge impact on
12 their health.

13 Obviously, the quality of air that people
14 breathe in communities around New Mexico is one of those
15 issues. The science is clear. The medical science is
16 not debatable. Poor air quality worsens diseases such
17 as asthma, COPD, emphysema and bronchitis, and has a
18 very real impact on our communities.

19 It tends to target the most vulnerable members
20 of our communities, children who suffer from reactive
21 airway disease and asthma, elders who have diseases like
22 COPD, and it tends to target people of color, who are
23 disproportionately affected by the location of these
24 industries that pollute our air quality.

25 The American Lung Association has given three

1 New Mexico counties an F grade for ozone pollution this
2 year. Our communities should not have to choose between
3 economic development and health. Responsible
4 regulations are necessary to ensure that every New
5 Mexican is able to breathe healthy air and that industry
6 does not pollute our air quality and damage the health
7 of New Mexicans.

8 I'm very grateful to the Governor and the New
9 Mexico Environmental Improvement Department for taking
10 this issue seriously.

11 I don't want to repeat in depth what Senator
12 Pope and others have already mentioned, but we call for
13 continuing strong regulations and identify three areas
14 which we think that these regulations need to be
15 strengthened. That includes protecting frontline
16 communities by requiring more frequent inspections,
17 ensuring protection during well completion and when
18 redeveloping existing wells, and strengthening
19 requirements to cut pollution from the pneumatic
20 controllers.

21 Thank you for your time.

22 HEARING OFFICER ORTH: Thank you, Dr. Barnes.

23 I will go, then, to Sanders Moore who reached
24 out through chat. Let me see here.

25 I've unmuted you.

1 Can you hear me?

2 Hello?

3 Sanders Moore.

4 He may have stepped away.

5 All right. I have rechecked for those names I

6 called earlier and don't see them on the platform.

7 Let's see here.

8 Try unmuting Sanders Moore one more time.

9 Hello. Can you hear me?

10 No. It's not working.

11 Sanders Moore is saying "I cannot unmute

12 myself on my end."

13 I've done what I can on the platform. We do

14 have several more public comment sessions. So in the

15 event you're able to rejoin us at 5:00, 9:00, 1:00 or

16 5:00 any day, please rejoin us. Thank you.

17 All right. Let's return to the technical

18 case.

19 Mr. Hiser?

20 Or Ms. Katz?

21 If you'd rejoin us on screen.

22 Mr. Hiser, I would ordinarily go to you at

23 this point for Mr. Smitherman's testimony or Mr. Meyer's

24 testimony.

25 MR. HISER: Mr. Meyer is not on -- Mr. Meyer

1 is not a witness on this issue for us.

2 HEARING OFFICER ORTH: Okay.

3 MR. HISER: I think all we have is
4 Mr. Smitherman.

5 HEARING OFFICER ORTH: All right.

6 And are you ready to present Mr. Smitherman,
7 or will we be coming back?

8 MR. HISER: I think it would be better if we
9 came back, if that's okay.

10 HEARING OFFICER ORTH: All right. That's
11 fine.

12 So let's go to -- should we go to Davis, then,
13 for IPANM?

14 MR. ROSE: Madam Hearing Officer, I don't
15 believe -- excuse me. I don't believe we have any
16 testimony on this issue. Mr. Davis testified as to the
17 application of LDAR to facilities yesterday in
18 connection with that testimony. So I don't think we had
19 any testimony directly with LDAR itself.

20 HEARING OFFICER ORTH: All right. Thank you.

21 So I believe we go to Mr. Holderman.

22 We're obviously --

23 MR. JANOE: Madam Hearing Officer, we're -- I
24 am policing up Mr. Holderman right now. He was down the
25 hall on another phone call. We -- we -- we anticipated

1 there being two more witnesses between us and them, but
2 if you bear with me for a moment, I think we can get
3 Mr. Holderman over here.

4 HEARING OFFICER ORTH: Thank you.

5 MS. SHEEHAN: Madam Hearing Officer, while
6 we're waiting for Mr. Holderman, if it's okay with you,
7 I could go ahead and present Mr. Copeland.

8 HEARING OFFICER ORTH: All right.

9 How do you feel about that, Mr. Janoe?

10 MS. SHEEHAN: It shouldn't take more than one
11 minute.

12 HEARING OFFICER ORTH: I'm all in favor,
13 Ms. Sheehan.

14 MS. SHEEHAN: Thank you, Madam Hearing
15 Officer.

16 Mr. Cope --

17 HEARING OFFICER ORTH: All right.

18 MS. SHEEHAN: Mr. Copeland's direct written
19 prefiled testimony, which is GCA Exhibit 15, addressed
20 the GCA's proposed modest amendments to the Department's
21 default monitoring requirements as set forth in the
22 Department's May 6th version of the rule at
23 Section 116C.(1)(e). Since that time, NMED has
24 addressed the GCA's concerns with its provision in NMED
25 Rebuttal Exhibit 23.

1 Given this cooperation and in an effort to
2 streamline this proceeding, if parties or Board Members
3 have questions for Mr. Copeland, he's available to
4 answer those. Otherwise, the GCA is satisfied with the
5 admission of Mr. Copeland's resume and testimony, GCA
6 Exhibits 15 and 16 respectively, into the record as
7 support for Section 116C as set forth in NMED Rebuttal
8 Exhibit 23.

9 HEARING OFFICER ORTH: Wow. Thank you very
10 much, Ms. Sheehan.

11 Let me pause a moment in the event any party
12 would like to turn on their camera for questions of
13 Mr. Copeland.

14 Not seeing anyone.

15 Board Members, please wave a hand if you think
16 you would have a question.

17 No.

18 All right. Thank you very much, Ms. Sheehan.
19 I think we're going to move along, then. Thank you.

20 MS. SHEEHAN: Thank you, Madam Hearing
21 Officer.

22 HEARING OFFICER ORTH: Let's see if Mr. Janoe
23 got ahold of Mr. Holderman. Otherwise, we could take
24 Ms. Nolting next.

25 MR. JANOE: Let's move forward with

1 Ms. Nolting. Mr. Holderman is finishing up what he
2 needed to finish up and should be about five or 10 more
3 minutes.

4 HEARING OFFICER ORTH: All right. Thank you,
5 Mr. Janoe.

6 Ms. Gutierrez and -- let's see.

7 MS. GUTIERREZ: I believe Ms. Nolting is
8 ready, as well.

9 HEARING OFFICER ORTH: I believe I made her a
10 panelist.

11 There you are.

12 MS. GUTIERREZ: There she is.

13 HEARING OFFICER ORTH: Go ahead.

14 MS. GUTIERREZ: Thank you.

15 LESLIE NOLTING

16 (Relating to Topic Order 27)

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

19 DIRECT EXAMINATION

20 BY MS. GUTIERREZ:

21 MS. GUTIERREZ: Madam Hearing Officer, could
22 you please give me screen share permissions?

23 See if I can improve my ability to do this
24 this time.

25 Okay. Are we looking at a slide deck?

1 Great. Thank you.

2 Ana Gutierrez with Hogan Lovells on behalf of
3 Kinder Morgan.

4 This is testimony relating to equipment leaks,
5 and this relates to Kinder Morgan's direct technical
6 testimony at Exhibit 7, as well as Exhibit 15.

7 Q. Ms. Nolting, as your qualifications have
8 already been presented to the Board, can you please
9 introduce yourself for the record?

10 A. Yes. My name is Leslie Nolting, and I am an
11 EHS manager at Kinder Morgan, focusing on air permitting
12 and compliance.

13 Q. Thank you.

14 And did you submit written direct technical
15 testimony at Exhibit 7 and rebuttal technical testimony
16 at Exhibit 15 regarding leak detection?

17 A. Yes.

18 Q. Do you have any changes to that testimony?
19 And if not, do you adopt that testimony in full today?

20 A. I have no changes to my testimony, and yes, I
21 adopt it in full.

22 Q. Thank you.

23 Could you please summarize for the Board your
24 testimony regarding leak detection and Kinder Morgan's
25 particular request for the Board's consideration.

1 A. Yes.

2 Good afternoon, Madam Hearing Officer, Madam
3 Chair and Members of the Board.

4 Thank you again for the opportunity to speak
5 with you.

6 As you have heard from the Department, Kinder
7 Morgan and EDF engaged in the issue of leak detection.
8 As a result of that engagement to understand each
9 party's -- and to understand each party's priorities,
10 Kinder Morgan and EDF propose a joint proposal for leak
11 detection at transmission compressor stations.

12 I will be brief because, as NMED testified, we
13 understand that the Department plans to incorporate this
14 joint proposal to an updated red-line, and we have heard
15 no objections from other parties.

16 Under the joint proposal, transmission
17 compressor station operators would have two alternative
18 compliance options. They could either conduct quarterly
19 monitoring, or they could comply with federal New Source
20 Performance Standards with an important caveat. In
21 order to take advantage of this second compliance
22 option, the federal standards -- the federal standards
23 must be at least as stringent as the version of the NSPS
24 Quad 0a in effect on the effective date of Part 50,
25 which is quarterly.

1 The priority purpose for the joint proposal is
2 twofold.

3 First, to ensure operators are inspecting
4 stations at an appropriately regular frequency, in
5 particular here considering that the fugitive VOC
6 emissions at transmission compressor stations are very
7 low.

8 And second, to eliminate the unnecessary
9 challenges associated with complying with a state LDAR
10 program and a separate and competing federal LDAR
11 program.

12 I'm going to move through a few slides rather
13 quickly, but I can answer any questions after if there
14 is any follow-up.

15 This slide breaks down the emissions profile
16 of one of our stations. The key point here is that
17 while the station on the whole exceeds the VOC PTE
18 thresholds proposed in the original NMED proposal,
19 requiring monthly LDAR, the fugitive emissions component
20 of that total, which is what we would inspect for at
21 leak -- during LDAR surveys, are typically below -- well
22 below one ton per year facility-wide.

23 Because of this extremely low VOC profile,
24 monthly monitoring breaks down to approximately \$17,400
25 per ton of VOC reduced, which is simply not cost

1 effective.

2 The second key goal of the joint proposal is
3 to avoid unnecessary overlap in competition with federal
4 leak detection programs. It is extremely resource
5 intensive with no emissions benefit to manage compliance
6 with two leak detection programs with different
7 requirements.

8 This chart shows just a few of the competing
9 obligations between the state and federal program.

10 With that, we believe that the joint proposal
11 between Kinder Morgan and EDF as shown on the screen is
12 reasonable, and we ask the Board to adopt it.

13 Q. Thank you, Ms. Nolting.

14 Does that conclude your summary of direct and
15 rebuttal testimony on this topic?

16 A. Yes.

17 Q. And in the spirit of streamlining this
18 hearing, we're going to just quickly move through
19 surrebuttal, as well.

20 As for surrebuttal, Ms. Nolting, did EDF
21 present data and calculations in their rebuttal
22 testimony at Exhibit JJJ related to the potential
23 emissions they estimated from transmission compressor
24 stations resulting from inspections less frequently than
25 monthly?

1 A. Yes.

2 Q. And specifically did EDF assert that accepting
3 the changes proposed by NMOGA and Kinder Morgan
4 originally for semiannual and quarterly leak detection
5 at compressor stations and gathering and boosting
6 instead of quarterly and monthly would result in up to
7 8,400 additional tons of VOC emissions per year released
8 and up to 34,000 additional tons of methane emissions
9 per year released?

10 A. It -- yes. That's correct.

11 Q. And although Kinder Morgan worked closely with
12 EDF to develop this joint proposal, do you agree with
13 the calculations and assumptions related to transmission
14 compressor stations?

15 A. No, we do not. There were just some basic
16 assumptions that were -- I don't believe were correct.
17 Using a more reasonable set of assumptions, if
18 transmission compressor stations conducted quarterly or
19 semiannual leak detection instead of monthly or
20 quarterly, the differential between the two sets of
21 frequencies would only result in an additional
22 approximately 6.5 tons per year of uncontrolled VOC
23 emissions released from transmission compressor
24 stations.

25 To be clear, we remain supportive of the joint

1 proposal between Kinder Morgan and EDF, and we
2 appreciate EDF's engagement on this important issue.
3 However, for purposes of the record, we do feel it's
4 important to state that Kinder Morgan does not agree
5 with the assumptions and the calculations reflected in
6 EDF's Exhibit JJJ.

7 And while I have prepared slides and talking
8 points to offer more detail on our specific concerns
9 with EDF's analysis, in the interest of time, I will
10 refer the Board to my slide deck on this topic, and am
11 happy to answer any questions you have regarding our
12 concerns with EDF's analysis on this issue.

13 MS. GUTIERREZ: Thank you, Ms. Nolting.

14 And I offer Ms. Nolting for cross-examination
15 and questions.

16 HEARING OFFICER ORTH: Thank you, Ms. Nolting
17 and Ms. Gutierrez.

18 Parties, if you have questions of Ms. Nolting,
19 please turn on your camera.

20 I'm not seeing anyone.

21 I'm going to turn to the Board for their
22 questions.

23 While I'm doing that, if you're an attendee on
24 this platform and have a question, please reach out
25 through chat.

1 Madam Chair, do you have questions of
2 Ms. Nolting?

3 CHAIR SUINA: Thank you, Madam Hearing
4 Officer.

5 I don't have any questions, but I just want to
6 say, you know, thank you to both parties, EDF and to
7 Kinder Morgan, even though we have some dispute, if you
8 will, debate over the numbers, base numbers, that you
9 could come to a resolution on language. So I appreciate
10 that. Thank you.

11 HEARING OFFICER ORTH: Thank you.

12 Vice-Chair Trujillo Davis.

13 VICE-CHAIR TRUJILLO DAVIS: I don't have any
14 questions at this time, but I'd also like to thank
15 Ms. Nolting for the testimony that she submitted.

16 And that's it. Thank you.

17 HEARING OFFICER ORTH: Thank you.

18 Member Bitzer?

19 MEMBER BITZER: No questions. Thank you.

20 HEARING OFFICER ORTH: Member Garcia?

21 MEMBER GARCIA: (Shakes head.)

22 HEARING OFFICER ORTH: No questions.

23 And Member Honker.

24 MEMBER HONKER: No questions.

25 HEARING OFFICER ORTH: Well, thank you very

1 much.

2 I don't imagine there's any need for redirect,
3 Ms. Gutierrez.

4 MS. GUTIERREZ: Thank you.

5 HEARING OFFICER ORTH: Thank you, both.

6 MS. NOLTING: Thank you.

7 HEARING OFFICER ORTH: I see Mr. Janoe on the
8 screen.

9 Mr. Janoe, do we have Mr. Holderman?

10 MR. JANOE: We are ready to go, Madam Hearing
11 Officer.

12 HEARING OFFICER ORTH: Terrific.

13 Have him turn on his camera -- oh, no. He's
14 sitting next to you, isn't he?

15 MR. JANOE: We're the swap-out team. I -- I
16 wish I could get the technology fixed, I honestly do.

17 HEARING OFFICER ORTH: It's not bad. It's not
18 bad.

19 MR. JANOE: We have tried literally
20 everything.

21 HEARING OFFICER ORTH: No. It's fine.

22 Go ahead.

23 MR. JANOE: Madam Hearing Officer, Madam
24 Chair, Members of the Board, Mr. Holderman will be
25 speaking on the equipment leak and fugitive emissions

1 program today, three areas that Mr. Holderman will
2 cover. First, proposal for exclusions on low-emitting
3 facilities; second, provisions on the allowance of
4 alternative monitoring; and third, provisions on
5 monitoring in occupied areas.

6 Much of this has been addressed in a joint
7 proposal that was provided by Oxy and the ENGOs that has
8 been submitted to the Board, as well, will be covered
9 both in Mr. Holderman's testimony, as well as in
10 testimony of other of the environmentalists.

11 So I will turn it over to Mr. Holderman.

12 DANNY HOLDERMAN

13 (Relating to Topic Order 27)

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

16 DIRECT EXAMINATION

17 BY MR. JANOE:

18 Q. Mr. Holderman, could you please summarize your
19 direct and rebuttal testimony in connection with
20 Section 116.

21 A. Yes. As I discussed in my prior testimony,
22 this is another topic where many, but not all of Oxy
23 USA's concerns have been addressed through coordination
24 and open dialogue with the Department and other
25 stakeholders.

1 Although the Department has resolved Oxy USA's
2 concerns with leak repair requirements, Oxy USA
3 continues to believe that the rule should provide
4 exclusions for low-emitting facilities and include
5 alternate leak monitoring methods. Oxy USA also
6 supports also additions by EDF and the other ENGOs on
7 this topic related to occupied areas.

8 Regarding low-emitting facilities, cost of
9 conducting leak surveys at facilities such as satellite
10 facilities, injection facilities and wellhead-only
11 facilities far outweigh the minimal risk of leaks at
12 these locations.

13 Oxy USA requests that the proposed rule be
14 modified to include modified inspection requirements for
15 inactive wellhead sites while maintaining an exemption
16 for other facilities with little or no potential for
17 leaks. As noted in my previous testimony, Oxy USA has
18 proposed definitions for satellite facilities and
19 temporarily abandoned wellhead sites, along with an
20 updated definition of wellhead site in Section 7 that
21 excludes injection well sites and wellhead-only sites.

22 The Department's rebuttal testimony version of
23 the language filed on September 7 deleted a one-time
24 inspection requirement for facilities with a potential
25 to emit under two tons per year, as well as a phase-in

1 of two years for existing facilities. These would have
2 helped resolve many of my concerns. However, the
3 Department has dropped the one-time inspection
4 requirements from the September 16th version of the rule
5 and only retained the two-year phasing.

6 I encourage the Board to instead either accept
7 Oxy USA's prior proposals that excluded low-emitting
8 facilities, including wellhead-only sites, or implement
9 a phased-in annual inspection requirement for
10 wellhead-only facilities.

11 Although Oxy USA continues to prefer its
12 proposal excluding these facilities, using the
13 Department's September 16 proposal as a basis for the
14 second opinion, Oxy USA would propose that owners or
15 operators of existing wellhead-only facilities continue
16 annual inspections of these existing sites beginning two
17 years after the effective date of this part on the
18 following schedule: 30 percent by January 1st, 2024; an
19 additional 35 percent by January 1st, 2025; and another
20 35 percent by January 1st, 2026.

21 The second option is consistent with EDF,
22 Clean Air Advocates and Nava's proposals in their
23 September 19th submittal. Oxy USA also included this
24 proposal in the September 24th filing.

25 Turning to alternative monitoring, Oxy USA

1 supports the Department's proposal to allow for
2 alternative leak monitoring plans in Section 116D, and
3 also requests that the Department allow for alternative
4 methods to be utilized.

5 As an example, Oxy has been compiling
6 sensor-based technology to electronically capture gas
7 emissions, audio data and visual data from locations as
8 an alternative compliance method to AVO inspections.
9 This method has the potential to be a more cost
10 effective and accurate form of data capture than
11 traditional AVOs which can enable greater emission
12 reduction. Alternative technologies have potential to
13 result in more rapid identification and response than
14 AVO inspection.

15 Finally, as noted in my rebuttal testimony,
16 Oxy USA is also supportive of additional monitoring
17 obligation for wellhead sites within 1,000 feet of an
18 occupied area as requested by EDF, Clean Air Advocates
19 and NAVA. Oxy USA would incorporate this approach with
20 the following updates:

21 First, that a definition of occupied area that
22 covers a building or structure used as a place of
23 residency rather than designed for use as a place of
24 residency.

25 Second, a description of the process to

1 measure the thousand-foot distance.

2 And finally, a timeline for owners and
3 operators to evaluate whether any occupied areas are
4 within 1,000 feet of a facility.

5 EDF, Clean Air Advocates and NAVA have
6 included these clarifications in their filings, and we
7 appreciate and support their changes, for this proposal
8 is workable for Oxy USA's New Mexico operations with
9 modifications discussed. I can't speak for whether it's
10 feasible for every basin or for other operators in the
11 state. I can only speak to Oxy's individual
12 (unintelligible and/or inaudible).

13 HEARING OFFICER ORTH: Mr. Holderman, I'm
14 sorry to interrupt here.

15 You may have mentioned it, but what exhibit
16 were you referring to?

17 MR. JANOE: Mr. Holderman's two exhibits are
18 Oxy USA Exhibit Number 2, which is his direct testimony,
19 and Oxy rebuttal Exhibit Number 2, which is his rebuttal
20 testimony.

21 In addition, we had made a separate filing,
22 like Kinder Morgan and EDF, on the 24th that included
23 alternative proposed language. Additionally,
24 environmental NGOs have also submitted a similar
25 one-pager type submittal (unintelligible/and or

1 inaudible). Those have not been entered as exhibits.

2 HEARING OFFICER ORTH: Thank you. I think
3 that was some of the confusion that the -- not -- not
4 bad confusion, just some of this is exhibits, and some
5 of it is filings. Thank you.

6 MR. JANOE: And we present Mr. Holderman for
7 cross-examination.

8 HEARING OFFICER ORTH: All right. Thank you.

9 Let me ask if there are parties with questions
10 of Mr. Holderman. Please turn on your camera.

11 I see Mr. Hiser.

12 CROSS-EXAMINATION

13 BY MR. HISER:

14 Q. Good afternoon, Mr. Holderman.

15 A. Good afternoon.

16 Q. I'm Eric Hiser. I'm representing the New
17 Mexico Oil and Gas Association.

18 And I wanted to touch on an aspect of your
19 testimony that you just gave as reflects a change in the
20 wording of this agreement with Oxy and a number of the
21 environmental nongovernmental organizations.

22 And in that change in the agreement, you
23 agreed to change places that are used for residency from
24 those that are designed for residency; is that correct?

25 A. That's our proposal. Yes.

1 Q. And when Oxy is making that change, what
2 frequency of review are you anticipating that Oxy would
3 be undertaking to -- that there would be no use of an
4 area for residency within 1,000 feet of any of its
5 areas? Because can't that change depending on whether
6 somebody sets up a tent or something like that in that
7 area?

8 A. Yeah. I -- I believe we asked for annually
9 to -- to review.

10 Q. So you're thinking an annual review. Okay.

11 A. I guess I -- I guess I'll -- I'll say that we
12 asked for a timeline to be able to go evaluate those
13 areas and that we would confirm any areas identified
14 annually hadn't changed status.

15 Q. Okay.

16 And so is it your vision that this is one time
17 or annual or evergreen, I guess?

18 A. I -- I mean, it would have to be evergreen.
19 But once you've identified them, and you're doing the
20 inspections, at that point it's up to you if you believe
21 that they have -- they changed status to go do that, or
22 you continue with the inspections. But yes. That's
23 what we (unintelligible and/or inaudible).

24 Q. And in Oxy's experience, because you're, you
25 know, obviously, a well respected technical operator in

1 this space -- how long does it take you to set up an
2 LDAR program for a facility that would have one of -- a
3 person potentially move within that thousand feet from
4 when you discovered it to how long would it take you to
5 actually put that program up and have it available?

6 A. We would -- we would ask for 60 to 90 days,
7 I'd -- I think would be our standard approach.

8 MR. HISER: Okay. Thank you --

9 MR. HOLDERMAN: Depending on the circumstance.

10 MR. HISER: Thank you very much,
11 Mr. Holderman. That's -- that's helpful just to
12 understand. Appreciate it.

13 HEARING OFFICER ORTH: Thank you.

14 Other parties with questions of Mr. Holderman?
15 Please turn on your screen.

16 I'll turn now to the Board for their
17 questions.

18 While I'm doing that, if you're an attendee on
19 this platform with a question, please reach out through
20 chat.

21 EXAMINATION

22 BY THE BOARD:

23 HEARING OFFICER ORTH: Madam Chair, any
24 questions of Mr. Holderman?

25 CHAIR SUINA: Madam Chair, I don't have any

1 questions.

2 HEARING OFFICER ORTH: Thank you.

3 Vice-Chair Trujillo Davis?

4 VICE-CHAIR TRUJILLO DAVIS: Yes. I have a
5 couple, and actually I thought Mr. Holderman would be
6 the best person to answer -- one of the best people to
7 answer these question. They kind of came up in some
8 earlier testimony.

9 So I was curious about your LDAR program, and
10 not necessarily specifically Oxy's, because I doubt you
11 want to speak on that. You might want to speak
12 generalized for most operators.

13 But would you -- would you say that most
14 operators have an LDAR program that they carry out
15 for -- for all their facilities?

16 MR. HOLDERMAN: Actually, I -- I guess I made
17 every attempt to not try to speak for every operator and
18 only speak to Oxy's.

19 What I can say is that we do. And so -- so
20 in -- in referencing our ability to react when -- when I
21 said 60 to 90 days, that encompasses the fact that we do
22 already have an LDAR program for most of our large
23 facilities. So we are merely bolting onto an existing
24 program. Starting from scratch would, obviously, take
25 more.

1 VICE-CHAIR TRUJILLO DAVIS: And in that LDAR
2 program, do you have a --

3 MR. HOLDERMAN: I guess I -- sorry. I will --
4 I guess I will say in so much that operators -- I guess
5 I can generalize this. In so much as operators have
6 equipment at facilities built in a time frame that Quad
7 0a applies to them, then they should have an LDAR
8 program already established, just something to meet that
9 requirement. So that's a generalization I can make.

10 VICE-CHAIR TRUJILLO DAVIS: That's a helpful
11 one. Thank you.

12 And so in that program do you grade it on like
13 a pass or fail rate? Is that how you would look at
14 the --

15 MR. HOLDERMAN: The way -- the way -- the way
16 we execute our program is, I guess, twofold, and I'll --
17 I'll happily speak to it.

18 For Quad 0a, we follow the requirements of
19 Quad 0a to capture because that's the -- the technical
20 basis for -- for our voluntary LDAR program. We -- we
21 go out and inspect a site. It is -- it is pass/fail.
22 There's not a -- there's -- the things are either
23 leaking or not. If we identify leaks, then we measure
24 how long we -- we get them prepared, and we go do a
25 second closeout in order to make sure that we have no

1 leaks until the next -- next time we show up.

2 VICE-CHAIR TRUJILLO DAVIS: Do you set like
3 internal company metrics for -- to improve your pass or
4 fail rate? Do you -- basically, are you looking back at
5 your own performance with that program?

6 MR. HOLDERMAN: I -- I guess I would say we
7 do. I don't want to overstate the -- the maturity of
8 our LDAR program. And so we -- I would -- I would
9 characterize it that we're -- we have gathered enough
10 information to know the frequency that we need to go out
11 there, so that we're not doing tests that we don't
12 capture anything repeatedly.

13 I don't know that we've built up enough at it
14 to be able to extend, you know -- to say that we need
15 definitiveness, that -- that -- that we've improved our
16 PM program for leaks at this point in time. That would
17 be ideal. That's the route that we're going. But we're
18 still -- we're still on that path.

19 So that -- that's why I say we're -- we're
20 currently mostly on a quarterly inspection basis for our
21 large facilities, similar to what's -- (unintelligible
22 and/or inaudible).

23 VICE-CHAIR TRUJILLO DAVIS: Okay. Thank you.

24 And what I was kind of driving at with that
25 was -- or trying to understand was, you know, we hear a

1 lot about LDAR programs, we hear a lot about, you know,
2 putting these inspection programs into practice, and
3 since the Quad 0a LDAR is already in practice, I wanted
4 to know more about how that was progressing and if it
5 was evolving within the companies to -- to improve or if
6 they were kind of status quo.

7 And so I thank you for answering those
8 questions for me. And if you have any more to add to
9 that, I'd appreciate it.

10 MR. HOLDERMAN: I'm trying to think if I do or
11 not.

12 I don't think I could definitively say that --
13 that LDAR has caused our -- the failure rate of the
14 equipment to go down. I mean, it doesn't fundamentally
15 even touch the equipment. You know what I mean?

16 And so to the extent that you can use LDAR to
17 change the way that you service the equipment, to
18 identify where we talk -- we've heard a lot in the -- in
19 the testimony that you have these incremental bad actors
20 compared to, you know, most equipment. The degree to
21 where we can find the service situations or things where
22 those bad actors are, LDAR is -- is great for -- for
23 driving down our leak rate.

24 But really it's a tool for us to identify
25 where we need to do the work and drive down the -- the

1 emission rate. LDAR isn't -- like I said, it isn't
2 fundamentally touching anything. It's just telling you
3 where -- where your problems are and where you need to
4 get people to fix (unintelligible and/or inaudible).

5 VICE-CHAIR TRUJILLO DAVIS: Thank you. I
6 think that was a really enlightening explanation. So
7 thank you.

8 I don't have any more questions.

9 HEARING OFFICER ORTH: Thank you.

10 Member Bitzer?

11 MEMBER BITZER: No questions. Thank you.

12 HEARING OFFICER ORTH: Thank you.

13 Member Garcia?

14 MEMBER GARCIA: No questions. Thank you.

15 HEARING OFFICER ORTH: Member Honker.

16 MEMBER HONKER: No questions. Thank you.

17 HEARING OFFICER ORTH: Thank you.

18 Mr. Janoe, did any of the questioning -- does
19 it prompt follow-up with Mr. Holderman for you?

20 MR. JANOE: Nothing further, Madam Hearing
21 Officer.

22 HEARING OFFICER ORTH: All right.

23 Well, thank you very much, Mr. Holderman and
24 Mr. Janoe.

25 I believe now we turn to EDF.

1 Ms. Paranhos?

2 MS. PARANHOS: Thank you so much, Madam
3 Hearing Officer.

4 Elizabeth Paranhos here on behalf of EDF.

5 With me today is Dr. David Lyon, who we heard
6 from yesterday, Ms. Hillary Hull and also Dr. Tammy
7 Thompson, who we heard from a few days ago on the ozone
8 photochemical modeling.

9 Our first witness is going to be Dr. Lyon.

10 DAVID LYON

11 (Relating to Topic Order 27)

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

14 DIRECT EXAMINATION

15 BY MS. PARANHOS:

16 MS. PARANHOS: I think he is with us. So as
17 long as he's been turned into a presenter, he should pop
18 up here any moment.

19 MR. LYON: Hello. Can you hear me?

20 MS. PARANHOS: Yes, we can. Thanks, David.

21 Madam Hearing Officer, do you need to swear
22 Dr. Lyon in again?

23 HEARING OFFICER ORTH: No. He remains under
24 oath.

25 MS. PARANHOS: Okay. Perfect. Thank you.

1 Q. Dr. Lyon, you submitted direct and rebuttal
2 testimony on behalf of EDF with respect to Section 116,
3 equipment leaks; is that correct?

4 A. Yes.

5 Q. And do you have any corrections to that
6 testimony?

7 A. Yes, I do.

8 Q. So --

9 HEARING OFFICER ORTH: Can we get exhibit
10 numbers?

11 I'm sorry to interrupt.

12 MS. PARANHOS: Absolutely. So Dr. Lyon's
13 rebuttal testimony is XX, and we just filed an amendment
14 to that. That's EDF Exhibit XXa. His direct testimony
15 is EDF Exhibit RR. And he will be discussing all of the
16 exhibits, some of which were discussed yesterday, but
17 those again would be Exhibit -- EDF Exhibit A, C, D, E,
18 F, G, H, I, J, K, L, M, N, O, QQ, RR, YY, ZZ and AAA.

19 And I would move to admit those exhibits
20 subject to the outstanding objection that we will be
21 hearing about, I think, later today or tomorrow, as
22 well.

23 HEARING OFFICER ORTH: Yes. Thank you.

24 They're admitted subject to that objection.

25 MS. PARANHOS: Thank you.

1 (Exhibits EDF XXa, A, C, D, E, F, G, H, I, K,
2 QQ, RR, YY and ZZ admitted into evidence.)

3 Q. (BY MS. PARANHOS) Dr. Lyon, could you please
4 summarize your opinions in your direct testimony
5 regarding EDF's LDAR proposal that requires additional
6 inspections at well sites located near occupied places
7 such as schools, homes and playgrounds?

8 A. Yes. EDF in conjunction with Clean Air
9 Advocates, Oxy USA and the Center for Civic Policy, NAVA
10 Education Project propose to require operators with
11 wellhead sites --

12 HEARING OFFICER ORTH: Dr. Lyon, I'm sorry to
13 interrupt you.

14 If you would start again and speak much more
15 slowly.

16 MR. LYON: Yes. Yes.

17 EDF in conjunction with Clean Air Advocates,
18 Oxy USA, the Center for Civic Policy and NAVA Education
19 Project propose to require operators with wellhead sites
20 located within 1,000 feet of occupied places such as
21 schools, playgrounds and homes inspect such facilities
22 more frequently than otherwise would be required by
23 NMED's proposal.

24 Specifically, operators would be required to
25 inspect well sites within 1,000 feet of occupied places

1 quarterly if such well sites have the potential to emit
2 less than five tons of VOCs. For well sites within this
3 boundary that have the potential to emit five times per
4 year VOCs, we recommend monthly inspections. We refer
5 to this as the LDAR proximity proposal.

6 This proposal will help protect frontline
7 communities from excess emissions while also helping New
8 Mexico avoid ozone nonattainment for a more serious
9 ozone nonattainment designation.

10 Q. And what is your opinion of NMOGA's proposal
11 to reduce the inspection frequency proposed by NMED for
12 well sites that have a potential to emit of less than 10
13 tons per year of VOCs?

14 A. I strongly disagree with this proposal. The
15 calculation of a well pad's potential to emit is
16 estimated primarily based on a well pad's oil and gas
17 production.

18 The scientific studies have shown, including
19 a -- one conducted in New Mexico Permian as early as --
20 as recent as 2018, show that there's a weak relationship
21 between well pad emissions and production and that
22 low-producing wells can emit substantial amounts of VOC
23 emissions, sometimes in excess of the potential to emit
24 due to malfunctions such as stuck separator dump valves
25 that cause abnormally high emissions.

1 Frequent inspections with instruments such as
2 optical gas imaging cameras are necessary to mitigate
3 emissions from these low-producing wells.

4 Q. Thank you, Dr. Lyon.

5 And could you describe EDF studies of
6 emissions from oil and gas operations that you have
7 participated in that took place in New Mexico?

8 A. Yes. And at this point I'd like to share some
9 slides.

10 So if you can please give me permission.

11 THE REPORTER: While that's happening, I'm
12 going to ask you to still speak slower, please.

13 MR. LYON: Okay.

14 Yes. So I'll be talking about some of EDF's
15 research since 2018, some studies that were published in
16 peer-reviewed journals and particularly EDF's project
17 since late 2019, the PermianMAP project.

18 So I'm going to share some slides now. Let's
19 see.

20 One second. Too many PDFs up.

21 Can you see those slides?

22 MS. PARANHOS: We can.

23 MR. LYON: Great.

24 One second. Apologies. Let me share the PDF
25 instead. The PowerPoint.

1 Apologies for that. Hopefully now you can see
2 the slides.

3 MS. PARANHOS: We can.

4 MR. LYON: So I'll be talking about
5 Environmental Defense Fund's Permian Methane Analysis
6 Project, which is a research project, a campaign in the
7 Permian Basin of New Mexico and Texas, that collaborates
8 with leading scientists to assess emissions of methane
9 and VOCs and facilitate mitigation of those emissions.

10 This project uses multiple measurement
11 approaches in the Permian and has been ongoing since
12 late 2019 and is continuing to go on. We actually have
13 aircraft in the Permian today measuring emissions. And
14 I'll talk in detail about some of the approaches that
15 have been used and what we learned. So I'll be talking
16 about several measurement approaches being used to
17 quantify emissions of methane, other pollutants.

18 There is aerial mass balance and remote
19 sensing by Scientific Aviation and Carbon Mapper,
20 tower-based estimates of regional emissions by
21 Pennsylvania State University, vehicle-based site-level
22 estimates of well pad emissions by the University of
23 Wyoming, and then helicopter-based optical gas imaging
24 surveys by Leak Surveys, Incorporated.

25 And all of this data is publicly available on

1 PermianMAP.org.

2 So the first data I'll be talking about is
3 estimates of the total methane emissions in the Permian
4 Basin.

5 So the study Zhang et al., 2020 used data from
6 the satellite-based TROPOMI instrument to quantify
7 methane emissions in the Permian and found that
8 emissions were 2.9 million metric tons per year, which
9 is equivalent to 3.7 percent of the natural gas
10 production. So higher than national averages -- the
11 national averages are much higher than EPA estimates.

12 For PermianMAP, EDF partnered with Scientific
13 Aviation and Penn State University to come up with
14 aircraft- and tower-based estimates of methane emissions
15 since about March, 2020.

16 So what we found is that in early 2020
17 emissions were about 3 percent of production, pretty
18 similar to the earlier study. And then what we found
19 was that when oil price crashed in April, 2020, the
20 emissions dropped to about 2 percent of production due
21 to the drastic decrease in new well production and a
22 decrease in gas flaring. But the emissions quickly
23 rebounded and have since then be -- have been about
24 3 percent and above.

25 So really demonstrating that by using these

1 measurement approaches we find that the total emissions
2 are much higher than estimates by EPA and -- and others.

3 The next data I'll be talking about are
4 site-level measurements performed by a vehicle using an
5 EPA-developed approach, Other Test Method 33A. So we
6 partnered with scientists at the University of Wyoming,
7 and they used their Mobile Research Laboratory on
8 firstly measurements in 2018 and then later doing
9 measurements in 2020.

10 So this data I'm talking about is from their
11 2018 measurements and are published in the paper of
12 Robertson et al., 2020. In this paper what they did is
13 they used this vehicle driving downwind of 71 sites,
14 well pads in the New Mexico Permian, and quantified
15 their emissions with an approach that can detect very
16 low levels of emissions in addition to high emissions.

17 So what they found was that methane emissions
18 were about five to nine times higher than estimates
19 based on the EPA National Emissions Inventory and about
20 10 times higher than based on the Greenhouse Gas
21 Reporting Program.

22 One interesting finding is that the
23 wellhead-only sites did tend to have much lower
24 emissions than the complex sites, but they still did
25 have emissions. So we think that this supports phasing

1 in the inspections of these wellhead-only sites.

2 The next approach I'll talk about are aerial
3 and satellite detections of large emissions, sometimes
4 called super-emitters.

5 So there's several approaches that have been
6 used recently, including NASA's Jet Propulsion
7 Laboratory in the University of Arizona have flown their
8 vehicle called -- their aircraft called Carbon Mapper,
9 which uses remote sensing to quantify large emissions
10 from sources that are about -- that are over about 200
11 tons per year of emissions. So these are very large
12 emissions sources.

13 And as you can see on the left, they can
14 actually image the plume of the emissions so you could
15 see exactly which site images are coming from, and often
16 you can even see the equipment it's coming from such as
17 a tank or an unlit flare.

18 And additionally, a recent paper,
19 Irakulis-Loitxate et al., 2021, used three satellites to
20 quantify even larger emissions greater than -- I think
21 it's 4,000 tons per year, using satellites, and found
22 over 30 of these really large sources in the Permian.

23 And so all this data is very recent, and we
24 actually have -- the next slide will show that -- that
25 we, EDF, has used Carbon Mapper aerial surveys to survey

1 the Permian, including the New Mexico portion, this
2 August, and the aircraft found nine -- over 900 methane
3 plumes from 500 sources over this 200 tons per year.
4 And many of the plumes had emissions detected over
5 multiple surveys throughout two weeks, and -- and many
6 of them are also -- were the same sources that were
7 emitting in 2019.

8 And -- but -- but also, a lot of sources were
9 very intermittent. So you find high emissions during
10 one survey, but they were gone the next survey, showing
11 really that you need frequent inspections to find these
12 large emitters.

13 And also, I'll point out that the emissions
14 were detected from a diversity of sites, including well
15 pads, compressors, pipelines and processing plants,
16 and -- and gathering compressor stations are one of the
17 largest sources, contributing about 20 percent of
18 emissions.

19 Next data I'll talk about is helicopter-based
20 optical gas imaging, which is -- you can use to -- to
21 visualize the normally invisible hydrocarbons including
22 VOCs and methane.

23 So we partnered with Leak Surveys,
24 Incorporated. This is a contractor that's been doing
25 OGI inspections for over 10 years. They -- they have

1 worked for several people, including NMED and EPA,
2 doing -- doing inspections. And we've had them fly in
3 the Permian on multiple surveys, looking for unlit
4 flares and other problems that we see here on the right.
5 So this is showing a flare at a processing plant that
6 should be combusting the VOCs and methane, but instead
7 it's unlit and venting all the gas to the atmosphere.

8 So we performed over five surveys in the
9 Permian. We actually have the helicopter flying right
10 now, doing some more surveys. And we found consistently
11 that about 5 percent of flares are unlit and venting and
12 another 5 percent have issues, such as you can see a
13 hydrocarbon slip, indicating that's not burning the
14 emissions properly.

15 So we estimate that the combustion
16 efficiency -- the overall combustion efficiency of these
17 malfunctioning flares is no better than 93 percent
18 compared to the 98 percent estimated by EPA and that
19 these flares contribute over 10 percent of the total
20 emissions, showing that it's really important to make
21 sure flares are maintained well and inspected.

22 So that's all the slides I have.

23 MS. PARANHOS: Thank you so much, Dr. Lyon.

24 Q. And do the findings from the PermianMAP
25 studies correspond to findings from other studies that

1 you've been involved in in other basins in the US?

2 A. Yes. So the findings of -- in the Permian,
3 they have a lot of consistencies with -- with the rest
4 of the US. But I will say the Permian is -- is really
5 the extreme. The Permian has some of the highest
6 emissions encountered in -- in the US, but the patterns
7 are generally the same.

8 So some of these really common findings are --
9 one is that emissions occur across the supply chain,
10 including in transmission and compression and local
11 distribution, but really the largest sources of
12 emissions are upstream, particularly well pads and
13 gathering stations.

14 Second is that -- that emissions always have
15 what's called skewed distribution. So that if you rank
16 emissions, if you rank sources or sites by their
17 emissions, the top 5 to 10 percent highest emitting
18 sources or sites account for over half of the total
19 emissions. And we find this is true no matter what kind
20 of sites or sources you look at, at some of these
21 super-emitters.

22 But the issue is these super-emitters often
23 are intermittent and may occur for a day or hours or
24 even minutes, and -- and they can occur at all sites.
25 So it's critical that sites are inspected to really find

1 these super-emitting sites.

2 Additionally, another finding is that the
3 traditional emission inventory approaches used by -- by
4 EPA, NMED and operators, including for things like the
5 EPA Greenhouse Gas Reporting Program, tend to greatly
6 underestimate emissions. And this is because they rely
7 on emission factors and engineering equations that are
8 either based on a very limited number of measurements or
9 assume things are working correctly.

10 So they may assume that -- that a flare is
11 combusting the emissions at 98 percent, but if the flare
12 is unlit, it's combusting it at 0 percent. So the
13 inventory often don't account for these -- these --
14 what's really going on in the field. So it's -- it's
15 wise -- it's critical that you use measurements to
16 estimate emissions.

17 So a paper published in the Journal of Science
18 in 2018, Alvarez et al., was a meta-analysis summary, a
19 lot of the EDF and other studies, that we tried to come
20 up with the best estimate of the US oil and gas methane
21 emissions, so included over 24 collaborating scientists.
22 And what we found was that emissions in the US in 2015
23 were 13 million metric tons of methane, that's about
24 2.3 percent of natural gas production, and it's about
25 70 percent higher than the EPA greenhouse gas

1 inventory's current estimate.

2 And -- and really it's because of these
3 super-emitters that -- that these inventory approaches
4 are really underestimating emissions and then also
5 underestimating the benefits that can be gained by
6 mitigating those emissions.

7 Q. Thank you, Dr. Lyon.

8 And you've touched on some of this already,
9 but I suppose the question is why is it significant that
10 measured emissions, as you found in the Permian Basin,
11 are higher than those estimated by inventories in
12 particular for this rulemaking?

13 A. Yes. Because since the rulemaking analyses
14 that are based on these bottom-up approaches, so they --
15 they underestimate both the total emissions, they
16 underestimate the mitigation, and then therefore they
17 underestimate the benefits that can be gained by
18 reducing the emissions.

19 Q. Terrific. Thank you.

20 So turning now to the topic of cost
21 effectiveness, your rebuttal testimony stated that NMED
22 did not overestimate the pollution reductions that can
23 be achieved through LDAR.

24 Could you please explain the basis for that
25 opinion?

1 A. Yes. So I reviewed ERG's estimate of emission
2 reductions to result from the implementation of NMED's
3 proposed LDAR rules. So ERG estimates that the
4 approximately 24,000 well sites in New Mexico subject to
5 the proposed LDAR requirements emit 7,131 tons of VOC
6 that can be reduced by frequent inspections. And this
7 is a gross underestimate of the pollution emitted from
8 New Mexico well sites that can be mitigated by frequent
9 instrument-based leak -- leak inspections if you use
10 these measurement-based studies to estimate the
11 emissions.

12 So as noted in my testimony, the paper
13 Robertson et al., 2020, used 2018 vehicle-based data
14 from 71 sites in the Permian and found that the average
15 emissions were about 37 tons of methane per year,
16 equivalent to about 11 tons of VOC per year, based on
17 the WRAP inventory's average gas composition, and that
18 extrapolates to over 260,000 tons of VOC emitted per
19 year from New Mexico Permian well pads, so much -- much
20 higher than official estimates.

21 And other studies suggest that -- that this
22 estimate actually is quite low, because the Robertson,
23 et al. study used vehicles that would miss a lot of the
24 elevated sources. So things like an unlit flare, the
25 emission plume would actually pass over the vehicle and

1 not be included. So -- so we think it's actually a
2 conservative estimate.

3 And also to that, NMOGA asserts that New
4 Mexico facilities have less potential equipment leak
5 emissions than EPA's model plant that ERG used to model
6 the reductions associated with NMED's LDAR proposal. So
7 NMOGA bases this assertion on reports operators submit
8 to EPA's Greenhouse Gas Reporting Program, and according
9 to these reports, New Mexico facilities have less pieces
10 of equipment and components and potential to emit than
11 2016 CTG model plants.

12 But as I noted in my -- my testimony, that
13 these estimates, like model plants that are based on
14 bottom-up emissions data, are inaccurate, and that if
15 you use measurement-based approaches you actually come
16 to the opposite conclusion of NMOGA and that -- find
17 that NMED's estimate is an underestimate of the
18 emissions.

19 Q. Thank you. Thank you, Dr. Lyon.

20 And if NMED's estimate of the emissions that
21 can be reduced by frequent instrument-based inspections
22 is an underestimate -- underestimate, does that also
23 mean that NMED's estimate of the reductions that can be
24 achieved by frequent inspections is an underestimate?

25 A. Correct.

1 Q. Thank you.

2 And could you expound a little bit more on why
3 you disagree with NMOGA's suggestion that well sites
4 that have a PTE of less than 10 tons per year of VOCs
5 should be subject to less frequent, specifically annual,
6 instrument-based inspections?

7 A. Yes. Because as I explained, the -- there's
8 really a poor relationship between production and
9 emissions, and the -- the PTE, the potential to emit, is
10 primarily based on -- on the production, often the oil
11 production going to the tanks. But those are really
12 inaccurate reflections of the emissions from those
13 sites.

14 So although it -- over a few studies that
15 really show how that -- that marginal wells, which tend
16 to have a low calculated potential to emit, can actually
17 have quite high emissions.

18 So the first study, Deighton et al., 2020,
19 summarized direct measurements of methane and VOC
20 emissions from marginal oil and gas wells, from the very
21 marginal wells that were producing less than one barrel
22 of oil equivalent per day. I believe the -- the
23 definition nationally is for 15 barrels of oil. So
24 these are the most marginal wells.

25 So measured these wells in the Appalachian

1 Basin in Southeastern Ohio and found that they were a
2 disproportionate source of methane and VOC emissions.
3 So these wells only accounted for about -- only
4 accounted for 0.2 percent of oil and 0.4 percent of gas
5 production produced in the US in a year, but they
6 estimate they account for 11 percent of the upstream
7 methane emissions. So it's a really negligible
8 contribution of production but a substantial fraction of
9 emissions.

10 Omara et al., 2018, is a meta-analysis study
11 of well pad emissions from eight basins that also finds
12 that marginal wells are a large contributor of
13 emissions. So the researchers obtained site-level
14 methane emissions, primarily collected with the same
15 approach as University of Wyoming, from over 1,000
16 natural gas production sites throughout the US, and a
17 methane -- and looked at the characteristics of these
18 wells and emissions profile by production.

19 So they categorized wells by category,
20 including based on the gas production, and found that
21 the low -- the low natural gas production sites that
22 were producing less than 100,000 cubic feet per day of
23 natural gas accounted for 85 percent of the total number
24 of sites in the study and nearly two-thirds of the total
25 methane emissions.

1 Also, many studies have identified that poor
2 maintenance is a driver of observed methane leakage at
3 marginal sites. For example, Deighton et al. found that
4 the state of maintenance of these wells was poor and
5 some sites were in a state of disrepair, with rusty well
6 shafts, broken valves, et cetera, while others were
7 found to be venting as a result of fallen trees on the
8 wellheads.

9 Similarly, Omara et al. reported rusted or
10 corroded well casings, field piping, regulators, valves
11 or meters, and identified a few of these decrepit
12 components as substantial sources of leaks at the
13 low-production sites. So these avoidable methane
14 emissions typically are not well represented in the
15 traditional inventory calculations, and that is one of
16 the large reasons that there's been discrepancies
17 between these inventory-based estimates and measurement
18 studies.

19 So the studies I've discussed here really
20 indicate that low-production wells are a
21 disproportionate source of methane emissions nationally
22 and in the Permian. For example -- yeah. So really
23 it's essential that these wells are inspected to find
24 these emissions and reduce them.

25 Q. Thank you, Dr. Lyon.

1 You mentioned the methane emissions that were
2 studied.

3 Is it true that methane is a component of
4 natural gas and VOCs are also a component of natural
5 gas?

6 A. Yes. So methane is a primary constituent of
7 natural gas, but it often includes VOCs and sometimes
8 hazardous air pollutants including benzene. So the EDF
9 studies have generally focused on methane emissions, but
10 since the VOCs and hazardous air pollutants are
11 co-emitted with the methane, I believe that these
12 studies -- the same findings would apply to these other
13 pollutants.

14 Q. Thank you.

15 And is it correct that EDF actually compiled a
16 methane-specific inventory for New Mexico, that then we
17 converted that inventory to VOCs for purposes of this
18 rulemaking?

19 A. Yes.

20 Q. Thank you.

21 Turning now to some of the testimony we heard
22 earlier today from Mr. Holderman.

23 As Mr. Holderman mentioned, EDF did propose
24 jointly with Oxy that low-producing facilities or --
25 sorry -- low-emitting facilities should either not be

1 inspected at all as part of LDAR or should be inspected
2 very infrequently.

3 Do we agree that inactive wells, temporarily
4 abandoned wells and wellhead-only sites should be
5 subject to less frequent or no inspections as we have
6 jointly proposed?

7 A. Yes. So these sites can have emissions, but
8 they tend to much less frequently have at large
9 emissions. So I think it's reasonable to have less --
10 have them phased in and have a -- yeah, to have -- and
11 we agree that they could be exempt from -- from LDAR.

12 Q. Great.

13 And just to clarify, did we propose to exempt
14 satellite facilities, injection wellheads and
15 temporarily abandoned sites from the instrument-based
16 LDAR?

17 A. Yes. We did propose to exempt satellite
18 facilities, injection wellhead sites and temporarily
19 abandoned wellhead sites.

20 Q. And could you describe the joint proposal for
21 LDAR with respect to inactive wellhead sites?

22 A. Yes. We propose that operators inspect these
23 wellhead sites that become inactive after the rules take
24 effect no sooner than 30 days after the site becomes
25 inactive. And subsequently, we propose annual

1 inspections of wellhead sites, and this is because the
2 inactive wells can leak, however they are not as likely
3 to leak as much or as frequently as actively producing
4 wells.

5 Q. Thank you.

6 And then with respect to wellhead-only sites
7 as has been proposed by EDF and Oxy, can you please
8 summarize what the proposal is with respect to
9 instrument-based leak detection?

10 A. Yes. We propose to require phase-in of the
11 annual inspection requirements for wellhead-only sites
12 as follow: So for existing wellhead-only facilities,
13 annual inspections shall be completed on the following
14 schedule: 30 percent by January 1st, 2024; 65 percent
15 by January 1st, 2025; and 100 percent by January 1st,
16 2026.

17 Q. Thank you, Dr. Lyon.

18 And for the benefit of the Board, that
19 particular proposal was part of our joint notice of
20 second revised amendments which we filed on
21 September 19th.

22 And that concludes Dr. Lyon's summary of his
23 direct and rebuttal. We do have some surrebuttal if I
24 may proceed with that at this time.

25 HEARING OFFICER ORTH: Yes, please.

1 Q. (BY MS. PARANHOS) Dr. Lyon, we heard earlier
2 in the proceeding that the New Mexico Oil Conservation
3 Commission venting and flaring rule and its AVO
4 requirements reduce the need for frequent
5 instrument-based inspections.

6 Do you agree?

7 A. No, I do not agree.

8 So I do not think that AVO is a substitute for
9 instrument-based methods. AVO can occasionally detect
10 emissions, particularly large emissions, but it's highly
11 dependent on both the kind of skill and attention of the
12 operator and the conditions in the environment,
13 including things like the wind and what's -- you know,
14 are there other sources nearby that are allowed to make
15 it difficult to hear or see emissions.

16 So I think that there's been people in
17 industry that have -- have made similar things,
18 including there's been testimony from Jim Bolander
19 during the OCC rulemaking last January that -- that
20 agreed with this point. So I can bring up his
21 testimony. We are wanting to -- his summary was that
22 LDAR is not meant to be a robust -- a robust inspection
23 and repair and reporting requirement, and that this is
24 not a leak detection and repair program because we
25 know -- we know that's out of our lane.

1 Q. Thank you, Dr. Lyon.

2 And so just to clarify, you were just quoting,
3 and it might actually be helpful to pull that up on your
4 screen if you're able to, testimony from Jim Bolander,
5 who was an Oil Conservation Division consultant during
6 the New Mexico Oil Conservation Commission rulemaking
7 last January; is that correct?

8 A. Yes, that's correct.

9 I can share it briefly, I think.

10 MR. CURTIS: Real quick for our benefit, is --
11 is this in the record at this point?

12 MS. PARANHOS: This is not. We have not
13 submitted this. This is part of our surrebuttal
14 testimony.

15 HEARING OFFICER ORTH: Go ahead.

16 MR. CURTIS: Well, I think it may be
17 appropriate at this point to object on the basis of
18 unfair surprise. We -- if we did receive this
19 information, it wouldn't have been until yesterday, and
20 this looks quite extensive.

21 HEARING OFFICER ORTH: Ms. Paranhos?

22 MS. PARANHOS: So this is surrebuttal. We
23 honestly don't think it, A, should be surprising, since
24 this was public testimony that was provided in January.
25 This is directly responsive to NMOGA's argument that

1 frequent monthly or weekly AVO inspections basically
2 reduce the need to have frequent instrument-based
3 inspections as the Department has proposed.

4 And so the only point we're trying to make
5 here is that the New Mexico Oil Conservation Commission
6 rule does not require leak detection and repair, it only
7 requires AVO, and their own consultant specifically
8 stated that AVO is not in any way a substitute for leak
9 detection and repair.

10 HEARING OFFICER ORTH: Mr. Hiser?

11 MR. CURTIS: This is Mr. Curtis.

12 I don't believe that there's any statement in
13 the record to the effect that the OCD rule requires an
14 LDAR program such as OGI and Method 21, and so it's
15 unclear to the extent it's trying to rebut that that
16 there's a statement in the record as a basis for that
17 rebuttal.

18 Beyond that, it would seem more appropriate
19 that this statement should be made on the strength of
20 the witness' own experience and testimony as opposed to
21 hearsay that we have not had access to up until now.

22 HEARING OFFICER ORTH: I think the way to
23 proceed at this point will be, Ms. Paranhos, for
24 Mr. Lyon to refer to the testimony subject to the
25 objection and we will weigh that later. But I don't

1 want to get bogged down in the -- in the argument just
2 right now.

3 Go ahead.

4 MR. LYON: Go ahead and share? Okay.

5 MS. PARANHOS: Thank you, Madam Hearing
6 Officer.

7 MR. LYON: Okay. Yes. I think -- Elizabeth,
8 I believe this is the correct part, right? Let me know
9 if I should go up a bit.

10 MS. PARANHOS: Yes. Maybe just go up to the
11 very top so -- yeah. Stop.

12 MR. LYON: (Unintelligible and/or inaudible.)

13 MS. PARANHOS: Yeah. There you go.

14 Q. So in this -- in this testimony, Dr. Lyon, is
15 Mr. Bolander discussing the difference between AVO
16 inspections, which are sensory-based inspections, and
17 instrument-based inspections, which we tend to call LDAR
18 or leak detection and repair?

19 A. Yes.

20 Q. Thank you.

21 And if you could just show the highlighted
22 portion, I think this is the most important part. This
23 is Mr. Bolander himself -- that's perfect right there --
24 simply providing his opinion as to whether or not the
25 OCC AVO requirements are or are not LDAR.

1 Oh, and, Mr. Lyon, in -- Dr. Lyon, in your
2 opinion, based on your own knowledge, I think you have
3 already stated that you do not believe AVO is as
4 reliable in detecting leaks as instrument-based
5 inspections.

6 Is that an accurate summary of your testimony?

7 A. That is correct.

8 Q. Thank you so much.

9 I don't have any further questions for
10 Dr. Lyon.

11 HEARING OFFICER ORTH: Thank you.

12 I see Mr. Rose on the screen.

13 Mr. Rose, do you have questions of Dr. Lyon?

14 MR. ROSE: No questions of Dr. Lyon
15 specifically, but in response to the question earlier by
16 Mr. Curtis, it wasn't clear whether this -- the OCD
17 test -- or the OCC testimony that was being shown is
18 going to be offered as an exhibit in this proceeding.

19 And if it is, it seems to me that it needs to
20 include the entire question and answer for context,
21 because what we're seeing and what was shown on the
22 screen is an excerpt from that testimony. It didn't
23 show the question that was being asked or the response
24 that was -- that this is directed to. So the Board
25 can't gauge the probity of that evidence without looking

1 at the more complete statement.

2 So we would ask that if it's going to be
3 offered it be offered in its -- that question and
4 answer, if there are more questions and answers related
5 to that, that they be offered in their entirety.

6 HEARING OFFICER ORTH: Thank you, Mr. Rose.

7 Ms. Paranhos, I think that's a good point. If
8 you would, please, make your proffer just a little more
9 than that one page.

10 MS. PARANHOS: Absolutely.

11 HEARING OFFICER ORTH: All right.

12 I see Mr. Curtis on the screen.

13 MR. CURTIS: Yes, Madam Hearing Officer. Just
14 a few questions for Dr. Lyon.

15 CROSS-EXAMINATION

16 BY MR. CURTIS:

17 Q. Good afternoon.

18 I appreciate you being with us today.

19 I wanted to talk a little bit about some of
20 the studies that you referred to, and in particular I
21 wanted to ask you a few questions about Exhibit F, which
22 is entitled New Mexico Permian Basin Measured Well Pad
23 Methane Emissions Are a Factor of 5-9 Times Higher Than
24 U.S. EPA Estimates.

25 So in the study the authors, which as I

1 understand included yourself, used a method referred to
2 as Other Test Method or OTM 33A; is that correct?

3 A. That's correct, yes.

4 Q. And I'm going to butcher this as a
5 nontechnical person, but essentially it describes the
6 method as you -- you conduct rapid wind and methane mix
7 and -- mixing ratio directions over a minimum 20-minute
8 period. So basically you're parking a vehicle with a
9 probe that's downwind of a well site, and you're
10 collecting data for a few minutes.

11 A. Yes.

12 Q. Is that fair? Okay.

13 And so in that study you -- you indicate that
14 there are 71 facility measurements relied upon; is that
15 correct?

16 A. Yes.

17 Q. And you categorized the results -- those 71
18 measurements into two categories, and my understanding
19 is basically there were 42 measurements that you
20 referred to as OTM 33A measurements, and then you have
21 21 -- 29 that you refer to as below detection limit
22 measurements.

23 And -- and my question is did you apply a
24 nonzero value to those values that were measured at
25 below detection limit?

1 A. Yes. I believe the study did apply half of
2 the detection limit to those sites, which was
3 0.04 kilograms per hour. So that's going to be, I
4 think, less than a ton per year.

5 Q. So in fact, there were no emissions measured
6 for the -- for 29 out of the 71 measurements that are a
7 part of the study?

8 A. Correct. For those five there was emissions
9 below the detection limit.

10 Q. Okay.

11 You also indicated that for some of these
12 measurements the evaluation was only conducted for
13 approximately five minutes as opposed to 20 minutes; is
14 that correct?

15 A. Oh, for that study the below detection limit
16 sites were only monitored for five minutes. So if -- if
17 elevated methane was detected, they waited the entire 20
18 to 30 minutes to measure emissions, but if they did not
19 see elevated methane, for the speed of the project to
20 try to get as many sites as possible, they -- they
21 decided the site was below detection limit.

22 Q. Okay.

23 So let's assume that each of the measurements
24 were the results of a 20-minute observation. We've --
25 you've indicated that -- that that's not the case, some

1 of them were only for five minutes. But let's just
2 assume for the sake of argument that they were all 20
3 minutes.

4 And so that -- that gives us -- in order to
5 quantify the total measurement time, we would simply
6 multiply 71 by 20 minutes; is that right?

7 A. The emissions were reported in kilograms per
8 hour. So you could multiply by 8,760 if you wanted to
9 estimate annual emissions.

10 Q. What I'm trying to understand is how much
11 actual monitoring data formed the basis for the study.

12 And so conservatively we have 71 measurements
13 at 20 minutes apiece, correct?

14 A. Yes.

15 Q. And that's approximately -- we'll say 1,420
16 minutes less than 24 hours total?

17 A. Um-hum.

18 Q. Okay.

19 And so you're taking each measurement which
20 lasts at most 20 minutes, and you're extrapolating it to
21 determine an annual emission rate which is 8,760 hours,
22 correct?

23 A. Yes.

24 Q. And then on a larger scale, you're taking less
25 than 24 hours of data to project the emissions for the

1 entire Permian Basin --

2 A. We --

3 Q. -- on an annual basis?

4 A. We use the 24 hours to estimate emissions for
5 a year, assuming that the two weeks of those
6 measurements was representative of the year.

7 Q. And you did that for the entire Permian Basin,
8 right?

9 A. No. Just the New Mexico portion of the
10 Permian.

11 Q. Just the New Mexico portion. Okay.

12 And how much would you say you covered
13 geographically in New Mexico in conducting this study?
14 What percentage of -- of geographic space was this --
15 was this accounting for?

16 A. Less than 1 percent.

17 Q. Thank you.

18 So in your testimony you spoke quite a bit
19 about the inadequacy of some of the emission estimation
20 methodologies used by the greenhouse gas reporting
21 inventory that EPA collects. And so it sounds like
22 you're generally familiar with the procedures that are
23 used to estimate emissions in that context.

24 A. Yes.

25 Q. And you mentioned some things like mass

1 balance engineering equations, emission factors that are
2 based on measurement data for EPA or other studies; is
3 that correct?

4 A. Yes.

5 Q. And do you have a sense for how many hours of
6 measurement data underlies those emission factors or
7 emissions estimation methodologies on any given year
8 across the Permian Basin?

9 A. It depends which factor you're talking about.
10 Some of the emission factors used in the EPA Greenhouse
11 Gas Reporting Program are based on, I believe, less than
12 20 measurements collected in 1990s. Some of those were
13 actually collected for different facility types as
14 they're being used for emission factors.

15 Q. So let's look at this globally. Right?
16 Because we want to compare apples to apples. So the
17 apple that we're comparing is the 24 hours of
18 measurement that was conducted in your study. The other
19 apple we're comparing is all of the data collected by
20 all of the owners and operators for the entire year in
21 the Permian Basin.

22 What -- what does the hour comparison look
23 like?

24 A. I'm not sure what you're talking about. If
25 you mean the hours that people are entering numbers in a

1 spreadsheet, yes, there's more labor that goes into the
2 emission inventory approach, that being they're using
3 flawed assumptions so that they're not actually
4 estimating the emissions. So I think you can't compare
5 hours there.

6 Q. Let's take, for example, measurements on the
7 inlets of devices.

8 Aren't we measuring flow in that instance?

9 Aren't we measuring VOC concentrations?

10 A. Yes. Those are good measurements, but they're
11 not used very often, except for transmission facilities
12 do -- are required to use measurements for the reporting
13 program. But for most production sources, they're not
14 using measurements.

15 Q. But you would agree that there are quite a bit
16 of facility-specific site measurements that underlie
17 the -- the greenhouse gas reporting numbers that are
18 reported?

19 A. Only for very limited emission sources in a
20 limited number of segments. So mostly transmission
21 reciprocating compressor and centrifugal compressor,
22 some of those vent emissions are measurements. There
23 are some approaches like well completions with unloading
24 that operators are given the option of using
25 measurements, but to my knowledge, less than 1 percent

1 of operators actually use measurement approaches.

2 Q. So let's turn to the emission factors that
3 are -- are commonly used in the greenhouse gas reporting
4 context.

5 Would it surprise you to know that many of
6 these emission factors statistically include large
7 emitters that were observed during the test phases of
8 developing that emission factor?

9 A. If you mean kind of the -- the earlier GRI
10 study from the 1990s, yes, I'm aware that there are some
11 large sources in some of the factors.

12 Q. Thank you.

13 And so I want to talk a little bit about your
14 assertion that emissions estimates from your study
15 indicate that total methane is five to nine times
16 greater than what's reported.

17 Part of the way you come to that conclusion is
18 you assume that EPA accounts for 95 percent of emissions
19 in the greenhouse gas reporting inventory, correct?

20 A. Yes.

21 Q. And has EPA said that it accounts for
22 95 percent of emissions from each sector, or is it
23 simply said that it accounts for 95 percent from the
24 inventory overall?

25 A. You're right. You're right. That is an issue

1 with the paper. I later learned that it's probably more
2 like 60 to 70 percent is estimated by the -- the
3 reporting program for oil and gas. So I think it would
4 be probably less than five to nine, but still would be
5 substantially higher than reporting program based
6 estimates.

7 Q. Okay. Thank you for that clarification.

8 And is that clarification included in your
9 testimony at any point, or is it true that you represent
10 the assertions of that study are, in fact, accurate,
11 with respect to five to nine times?

12 A. I would say that I was citing the
13 peer-reviewed paper and have learned since then that the
14 assumptions in that peer-reviewed paper maybe could be
15 revised.

16 Q. But aren't you the author of that
17 peer-reviewed paper?

18 A. I'm one of the authors. Yes.

19 Q. Okay.

20 So I want to spend just a little bit more time
21 on this concept of comparing the greenhouse gas
22 reporting inventory.

23 Isn't it true that this inventory is subject
24 annually to a peer review, a public review and a review
25 by an international team of experts?

1 A. Yes. They often review it.

2 Q. Turning now to some of your comments specific
3 to NMOGA's analysis.

4 In your rebuttal testimony you question
5 NMOGA's critique of ERG's model plants, and in reviewing
6 this analysis you refer to various studies that rely on
7 geospatial measurements of air pollution.

8 And so my question is do geospatial
9 measurements of air pollution tell you anything about
10 how many components a particular type of site might
11 have?

12 A. No.

13 Q. And do geospatial measurements indicate the
14 source of emissions at a component or an equipment
15 level?

16 A. They estimate typically the source of
17 emissions at the site level.

18 Q. So while these methods may give you some
19 estimate of the overall concentration of pollutant in a
20 given geographical area, they don't tell you whether
21 that pollution is coming from (unintelligible and/or
22 inaudible) controller or some other piece of equipment
23 that has nothing to do with the oil and gas?

24 A. Correct. Most of the approaches cannot
25 distinguish the equipment the emissions are coming from.

1 Q. In any of these studies -- and let's -- let's
2 speak at least with respect to this study we've been
3 focusing on with respect to the five to nine times
4 greater methane emissions.

5 Is it accurate to say that most of these
6 measurements were conducted during the daytime?

7 A. Yes.

8 Q. And isn't it true that oil and gas operators
9 generally perform maintenance during the daytime?

10 A. That's my understanding. Yes.

11 Q. And wouldn't that have the effect of biasing
12 the results high by conducting the measurements at a
13 time that maintenance is most likely to be occurring?

14 A. Potentially, yes. If maintenance was a large
15 source of the emissions, then it could bias it high on
16 our annual estimates if we're assuming that those
17 daytime hours are -- are representative of the annual
18 average.

19 Q. Let's see. I wanted to spend a little bit of
20 time on your discussion of AVOs. And I want to just
21 correct the record a little bit, because your testimony
22 seemed to imply that NMOGA or some other party is
23 advocating that AVOs take the place of Method 21 and OGI
24 measurements.

25 Are you aware that no party is proposing that?

1 A. I'm not aware.

2 Q. Have you ever conducted an AVO at an active
3 oil and gas well site?

4 A. Not an official AVO. I've been at oil and gas
5 sites and have heard and seen emission sources, but
6 not -- not as an official AVO inspection.

7 Q. And in your testimony with respect to AVOs, I
8 believe I heard you said that AVOs are good for
9 detecting large emitters; is that correct?

10 A. Yes. That they are more -- more likely to
11 detect large emitters.

12 Q. And isn't that the primary concern with
13 respect to LDAR, is in identifying the large emitters?

14 A. Yes. But I -- obviously, I don't think AVO
15 can reliably detect those large emitters.

16 Q. And so the proposal where we have a mix of,
17 say, weekly AVOs with other rigorous Method 21 OGI
18 measurements, that represents an appropriate mix,
19 correct?

20 A. I don't know if Method 21 and AVO together. I
21 don't think that's an appropriate mix. But I do think
22 you could have an appropriate mix of AVO and other
23 instrument-based inspections, and including things like
24 OGI cameras and aerial surveys that can frequently
25 detect large emitters.

1 Q. Okay.

2 I think that's all my questions, Mr. Lyon.

3 Thank you. You've been very helpful.

4 HEARING OFFICER ORTH: Thank you, Mr. Curtis
5 and Dr. Lyon.

6 We do need a break. When we return from the
7 break, I did see Mr. de Saillan on screen, and now I see
8 Ms. Fox. When we return from the break, I will continue
9 with Dr. Lyon.

10 Let's see. Come back at 3:05, please.

11 (Proceedings in recess from 2:50 p.m. to
12 3:05 p.m.)

13 HEARING OFFICER ORTH: Let's come back from
14 the break, please.

15 Do we have your counsel handy?

16 And then I can invite Mr. de Saillan to offer
17 his questions.

18 Ms. Paranhos?

19 MS. PARANHOS: Sorry. I was having technical
20 difficulties. I am here. I am having issues with my
21 audio.

22 HEARING OFFICER ORTH: And if you need to turn
23 off your camera, that's fine. I had to turn mine off
24 this morning. So please go ahead and turn it off if you
25 need to.

1 Mr. de Saillan?

2 MS. PARANHOS: Can't hear you.

3 MR. DE SAILLAN: Thank you, Madam Hearing
4 Officer.

5 Can you hear me okay?

6 MR. LYON: Yes.

7 MR. DE SAILLAN: Very good.

8 CROSS-EXAMINATION

9 BY MR. DE SAILLAN:

10 Q. Good afternoon, Dr. Lyon.

11 My name is Charles de Saillan. I'm an
12 attorney representing the New Mexico Environmental Law
13 Center.

14 And I just have one very quick clarifying
15 question for you.

16 You -- I want to go back to your testimony
17 earlier about the proposal for enhanced LDAR for sources
18 that are within a thousand feet of an occupied area.

19 Is it your understanding, Dr. Lyon, that the
20 New Mexico Environmental Law Center also supports that
21 proposal?

22 A. Yes.

23 MR. DE SAILLAN: Okay. Thank you.

24 That's all I have.

25 HEARING OFFICER ORTH: All right. Thank you

1 very much.

2 Any other counsel?

3 Ms. Fox.

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

5 CROSS-EXAMINATION

6 BY MS. FOX:

7 Q. Hello, Dr. Lyon.

8 My name is Tannis Fox. I'm with Western
9 Environmental Law Center, and I represent the parties
10 that we're calling Clean Air Advocates in this
11 proceeding.

12 Thank you very much for your testimony. I
13 just have a couple of lines of inquiry for you.

14 And first is, Dr. Lyon, are you familiar with
15 the testimony from Mr. Smitherman on a study on LDAR
16 that was conducted by the American Petroleum Institute
17 surveying 13 operators?

18 A. Yes.

19 Q. And Mr. Smitherman said that on average less
20 than two leaks were found in the -- during that survey
21 during the initial inspection and less than one week --
22 one leak on average thereafter.

23 Is that accurate?

24 A. Yes. That's correct.

25 Q. What is your -- and he uses that study, does

1 he not, to imply that leaks are not so common and LDAR
2 is not so efficacious? Is that correct?

3 A. That's what he concluded. Yes.

4 Q. What's your response to that general
5 conclusion?

6 A. Yes. I think using the number of leaks is an
7 inappropriate way of estimating emissions or the
8 efficacy of LDAR, I think particularly because it's
9 really the magnitude of the emissions rather than the
10 number of leaks. And also, many emission sources can be
11 intermittent. So just because during a follow-up survey
12 there's a small number of leaks does not mean that there
13 isn't a high potential to emit from that site.

14 Q. And -- thank you.

15 And in your testimony you discussed studies at
16 well sites and gathering and boosting stations on
17 emissions and leaks from these facilities, correct?

18 A. Yes.

19 Q. And can you please talk a little bit more
20 about the emissions and leaks that have been detected
21 and found at gathering and boosting stations?

22 A. Yes. So there have been several recent
23 studies that have looked at methane emissions from
24 gathering and boosting stations, including an
25 EDF-sponsored study for Colorado State University that

1 used site-level measurements to estimate gathering
2 compressor emissions.

3 Also, there's been some subsequent work by
4 Colorado State University looking at component-level
5 emissions and found that these compressors can -- can
6 have leaks and anomalous emissions.

7 And our recent work, including the aerial
8 surveys by -- by Carbon Mapper, have found that in the
9 Permian Basin gathering stations are a
10 disproportionately large source of emissions compared to
11 other basins, accounting -- with the stations themselves
12 accounting for about 25 percent of the measured methane
13 emissions from -- from large emitters.

14 I think some of these emissions may be permit
15 emissions through things like incomplete combustion or
16 might be some permitted venting, but I think a lot of it
17 is due to both leaks and then inefficient operations,
18 including things like flares that are not properly
19 burned.

20 So I think particularly what happens in the
21 Permian is there's maybe pressure issues where some of
22 the gathering pipelines are overpressurized, and there
23 can be anomalous pressure relief venting from these
24 gathering stations, causing really high emissions.

25 So I think it's critical that -- that the

1 sites are maintained well, including making sure they're
2 operating under -- under proper pressure so you don't
3 have these large emissions from -- from gathering
4 compressor stations.

5 Q. What are the implications for the frequency of
6 LDAR inspections given those findings?

7 A. Yes. I think the implications are it's
8 critical to have frequent LDAR at gathering stations
9 because they can have anomalous very high emission
10 events, and a lot of our work has found that these
11 emission events can be short-term, maybe a couple hours
12 or days.

13 So -- so really it's critical that you're
14 continuously looking for problems, doing frequent
15 inspections, and I think even better would be having
16 some kind of continuous monitoring of these facilities
17 to make sure that -- that when operators notice
18 problems, that they're fixed very quickly.

19 MS. FOX: Thank you. That's all I have.

20 HEARING OFFICER ORTH: All right. Thank you.

21 Any other parties or counsel with questions of
22 Dr. Lyon?

23 No?

24 I'll turn then to the Board questions.

25 While I'm doing that, if you're an attendee on

1 this platform, please reach out through chat with any
2 questions.

3 EXAMINATION

4 BY THE BOARD:

5 HEARING OFFICER ORTH: Madam Chair, do you
6 have questions of Dr. Lyon?

7 CHAIR SUINA: Yes. Thank you, Madam Hearing
8 Officer.

9 Again thank you, Dr. Lyon, for your testimony.

10 I wanted to go back to, I guess, a question
11 about the 1,000 foot. I know I had asked it earlier in
12 the hearing from another witness, but given your
13 background and some of the studies you've referenced.

14 I was wondering if you could elaborate a
15 little bit more on the proposal of the frequent
16 inspections within 1,000 feet and versus, say, 500 feet
17 or 2,000 feet. Could you just elaborate a little bit
18 more on the 1,000 foot?

19 MR. LYON: I mean, that is what we -- we
20 agreed on. I'm not the proper person, I believe, to
21 speak to why that distance. I believe my -- my
22 colleague, Tammy Thompson, may be speaking more about
23 that later.

24 CHAIR SUINA: Okay.

25 All right. Well, thank you so much for your

1 response.

2 And at this point, Madam Hearing Officer, I
3 don't have any other questions.

4 HEARING OFFICER ORTH: Thank you.

5 Vice-Chair Trujillo Davis.

6 VICE-CHAIR TRUJILLO DAVIS: Yes. I just have
7 a couple of clarifying questions.

8 Is it Dr. Lyon?

9 MR. LYON: Yes.

10 VICE-CHAIR TRUJILLO DAVIS: I want to make
11 sure I give you your credit there.

12 Dr. Lyon, I'm a little confused in your
13 presentation.

14 It seems like methane is being used
15 interchangeably with VOCs -- for VOCs, and then I think
16 you clarified in there at some point that it -- you're
17 using methane as like a tracer for VOCs to show -- to
18 use as an example? Did I understand that correctly?

19 MR. LYON: Yes. So EDF's research has been
20 primarily focused on methane emissions. So most of our
21 measurements have used approaches that -- that are
22 specific to methane. We do have some, including the
23 optical gas imaging, that do VOCs, and University of
24 Wyoming did measure VOCs and is currently analyzing that
25 data.

1 But generally all of our research is on
2 methane, and as I said earlier, that since VOCs are
3 co-emitted with methane, I think that -- that the
4 research also applies to VOC engines.

5 VICE-CHAIR TRUJILLO DAVIS: Is that a direct
6 relationship? Is methane equivalent to VOCs in
7 emissions, or does that require a gas analysis?

8 MR. LYON: The gas composition can vary
9 widely. So I think in -- in the production field the
10 VOC content could -- could be maybe over 20, 30 percent
11 in some kind of wet gases, or it could be less than
12 1 percent in -- in dry gases or -- or kind of
13 downstream. So yeah. It greatly varies depending on
14 where -- where you are, which field and which part of
15 the -- the supply chain.

16 VICE-CHAIR TRUJILLO DAVIS: Okay.

17 So just so I'm clear on making these
18 distinctions, VOCs and NOx are precursors to ozone; is
19 that correct?

20 MR. LYON: Yes.

21 VICE-CHAIR TRUJILLO DAVIS: Is methane? Does
22 methane react in turn to ozone, as well?

23 MR. LYON: Methane does impact global ozone
24 levels, but I believe it has very smaller or zero impact
25 on kind of local ozone levels. But my colleague,

1 Dr. Thompson, could -- could speak much more on that
2 issue.

3 VICE-CHAIR TRUJILLO DAVIS: Okay. So at this
4 point I'm kind of feeling like this is a little out of
5 scope for this rule and what we're supposed to be
6 looking at.

7 So can you just kind of direct me to maybe
8 what I should focus on in your testimony?

9 MR. LYON: Yeah. So I think any time where I
10 say like that the estimates show that the emissions are
11 higher than government estimates, that also applies to
12 VOCs in addition to methane. So while most of the
13 research papers were comparing methane, if you use
14 approaches -- kind of bottom-up approaches with VOCs,
15 you get similar underestimates.

16 So I think the general findings apply whether
17 you're talking about methane or VOCs. And some of the
18 studies like the OGI surveys are really looking at total
19 hydrocarbons including methane and VOCs.

20 VICE-CHAIR TRUJILLO DAVIS: Okay. Thank you
21 for that explanation.

22 And then the other thing I wanted to clarify
23 was you're -- I think you were contending that more
24 inspections were necessary, and then later on you were
25 discussing some of the biggest issues with leaks on

1 facilities was general maintenance and then lack of
2 general maintenance that contributed to leaks.

3 So I was hoping that maybe you could draw a
4 distinction for me between the difference between
5 frequent inspections and general maintenance?

6 MR. LYON: Yeah. I mean, personally, I feel
7 that it's not a clear distinction and that often I think
8 that -- that leak detection or repair should be viewed
9 more comprehensively by operators and regulators. It's
10 not just looking for equipment leaks, but also looking
11 for underlying problems, including maintenance issues
12 that could lead to future emissions.

13 So I think a robust program to reduce
14 emissions would include these really comprehensive
15 surveys for -- for looking for emissions and underlying
16 problems that may require longer-term solutions such as
17 changing equipment on the site.

18 VICE-CHAIR TRUJILLO DAVIS: I guess in my mind
19 when I think of an inspection, to me it should be
20 official. That is what I feel like we're talking about
21 here, is you conduct an inspection, it becomes a record,
22 and it's in -- it's -- you can have it pulled for -- for
23 an inspection by an agency or something like that, but
24 it's an official record, whereas general maintenance
25 would just be the day-to-day job at a facility.

1 So I'm not sure I understand -- I understand
2 those differences in your assertion. So -- I mean, if
3 you can clarify it for me, great. If not, that's okay.
4 I'm done with my questions.

5 MR. LYON: Yeah. No. I understand the point
6 about, yeah, having official inspections and
7 requirements, but I -- I would hope that the
8 recordkeeping requirements would -- would be structured
9 in a way that the operators are collecting data that --
10 that also includes the maintenance status, and I think
11 that would be advantageous, not only to the regulators,
12 but it would help the operators make sure that the
13 equipment is being properly maintained, and that really
14 that those -- the LDAR recordkeeping process could --
15 could have advantages to the company.

16 VICE-CHAIR TRUJILLO DAVIS: And do you feel
17 that the current rule meets that as far as maintenance
18 recordkeeping?

19 MR. LYON: I'm not familiar with the details
20 in the recordkeeping requirements.

21 VICE-CHAIR TRUJILLO DAVIS: Okay.

22 Thank you very much for your time. I
23 appreciate it.

24 No further questions.

25 HEARING OFFICER ORTH: Thank you.

1 Member Bitzer?

2 MEMBER BITZER: My question was already asked.

3 So I'm good. Thank you, Madam Chair.

4 HEARING OFFICER ORTH: Thank you.

5 Member Garcia.

6 MEMBER GARCIA: No questions right now. Thank
7 you.

8 HEARING OFFICER ORTH: Thank you.

9 Member Honker?

10 MEMBER HONKER: No questions. Thank you.

11 HEARING OFFICER ORTH: All right. Thank you.

12 Did any of that prompt redirect for you,

13 Ms. Paranhos?

14 MS. PARANHOS: Yes. Just one -- a couple
15 questions.

16 REDIRECT EXAMINATION

17 BY MS. PARANHOS:

18 Q. Dr. Lyon, you provided some testimony in
19 response to Mr. Curtis' questions regarding the time of
20 day that the measurements were taken; is that correct?

21 A. Yes, um-hum.

22 Q. And were most of the measurements taken during
23 the daytime?

24 A. Yes, they were.

25 Q. And Mr. Curtis pointed out that the

1 researchers may have observed emissions from maintenance
2 activities occurring during the daytime; is that
3 correct?

4 A. Yes.

5 Q. And do you believe that leak detection and
6 repair programs can help reduce excess emissions that
7 stem from, for example, an improper leak conducted
8 maintenance activity?

9 A. Yes. As I just stated, I believe that LDAR
10 can really be a more comprehensive process, that's not
11 just identifying leaks, but they're really looking at
12 the entire emissions profile of the site, including the
13 maintenance. So you could perhaps see if a scheduled
14 maintenance had not been performed or was done
15 improperly. I think that was -- is very useful
16 information.

17 So I think that by doing these inspections you
18 can not only reduce leaks, but really find any kind of
19 operational inefficiencies that would benefit the
20 operator to fix.

21 Q. Thank you, Dr. Lyon.

22 And you did testify earlier today that EDF
23 converted the New Mexico-specific methane inventory that
24 is based on the EDF methane measurements to VOCs; is
25 that correct?

1 A. Yes.

2 Q. And to your knowledge, is EDF recommending any
3 specific direct methane control requirements in this
4 proceeding?

5 A. No.

6 Q. To your knowledge, are we only relying on
7 estimates of VOCs as a basis for our cost effectiveness
8 analyses?

9 A. Yes.

10 MS. PARANHOS: Thank you.

11 I have no more questions for Dr. Lyon.

12 HEARING OFFICER ORTH: All right. Thank you
13 very much, Ms. Paranhos and Dr. Lyon.

14 MR. LYON: Thank you.

15 HEARING OFFICER ORTH: I believe we can excuse
16 you for the moment.

17 MS. PARANHOS: Next witness will be Hillary
18 Hull.

19 HEARING OFFICER ORTH: Thank you.

20 Ms. Hull, I see you on the screen.

21 Would you spell your name for the transcript,
22 please.

23 MS. HULL: Yes. It's Hillary, H-I-L-L-A-R-Y,
24 Hull, H-U-L-L.

25 HEARING OFFICER ORTH: Thank you.

1 Raise your right hand.

2 Do you swear or affirm to tell the truth?

3 MS. HULL: I do.

4 HEARING OFFICER ORTH: Thank you.

5 HILLARY HULL

6 (Relating to Topic Order 27)

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

9 DIRECT EXAMINATION

10 BY MS. PARANHOS:

11 HEARING OFFICER ORTH: And don't forget the
12 exhibits, Ms. Paranhos.

13 MS. PARANHOS: Yes, absolutely. Madam Hearing
14 Officer, Hillary Hull will be relying on EDF Exhibits A,
15 P, which is her resume, C, E, H, Q, R, T, U, V, X, Y, Z,
16 AA, BB, CC, DD, FF, JJJ and III.

17 (Exhibits EDF P, Q, R, T, U, V, X, Y, Z, AA,
18 CC, DD, FF, JJJ and III admitted.)

19 Q. (BY MS. PARANHOS) Ms. Hull, where are you
20 employed?

21 MS. HULL: Before we -- before we get started
22 actually, would -- could I get screen sharing
23 privileges, please?

24 All right. Go ahead, Elizabeth.

25 MS. PARANHOS: Right.

1 Q. Hillary, where are you employed?

2 A. One little technical issue.

3 I am director of research and analytics for
4 the Environmental Defense Fund.

5 Q. And what is your educational background?

6 A. I have a bachelor's degree in civil
7 engineering from the University of Texas at Austin and a
8 master's degree in environmental engineering with a
9 specialty in atmosphere and energy from Stanford
10 University.

11 Q. And can you provide the Board with a brief
12 overview of your work experience?

13 A. Yes. I've spent the past seven years
14 developing and managing analytics and policy for EDF's
15 state, federal and international oil and gas and natural
16 advocacy efforts. This includes regulatory advocacy,
17 emissions inventory compilation data and economic
18 analysis, technical support for rulemaking and
19 regulation, and policy analysis and development.

20 And prior to working at EDF, I was a senior
21 project engineer for Environmental Resources Management,
22 which is an environmental consulting firm.

23 Q. Thank you.

24 And is EDF Exhibit P an accurate copy of your
25 CV?

1 A. Yes.

2 Q. And did you submit both direct and rebuttal
3 testimony on LDAR?

4 A. Yes.

5 Q. And are Exhibits FF and JJJ correct copies of
6 your direct and rebuttal testimony, or do you have any
7 corrections to either of those testimonies?

8 A. Yes. We have one correction to my rebuttal
9 testimony with respect to the estimated foregone
10 reductions we calculated would accrue if NMED did not
11 require inspections for existing transmission stations,
12 that I will explain in my testimony today.

13 Q. Thank you, Ms. Hull.

14 Could you please summarize the additional VOC
15 benefits that will accrue to people of New Mexico that
16 live within 1,000 feet of a well site pursuant to EDF's
17 LDAR proximity proposal?

18 A. Our proposal is highly cost effective and will
19 result in the removal of an additional 3,600 tons of VOC
20 on top of the reductions that the application of the
21 NMED proposal alone would achieve. It will also secure
22 important co-benefits by reducing 14,300 tons of methane
23 and 150 tons of hazardous air pollutant annually.

24 Importantly, it will protect the health of
25 over 35,000 New Mexicans, many of whom are particularly

1 vulnerable to the deleterious health effects caused by
2 exposure to ozone and toxic air pollution.

3 Q. Thank you.

4 And can you please summarize the opinions in
5 your rebuttal testimony regarding a comparison of the
6 NMED and NMOGA LDAR proposals?

7 A. Yes. First, NMED's estimate of the compliance
8 cost of its proposed LDAR requirement is very
9 conservative. From my analysis, the per well site cost
10 of conducting semiannual inspections is 30 percent lower
11 than ERG's estimate.

12 Second, NMOGA's estimated per well site costs
13 are grossly inflated. NMOGA's estimate of the cost of
14 connecting inspections is magnitudes higher than NMED's,
15 EPA's, the Colorado Air Pollution Control Division or
16 EDF estimates.

17 For example, NMOGA's estimate of the per well
18 site cost to conduct semiannual inspections is
19 286 percent higher than EDF's estimate, between 168 and
20 228 percent higher than EPA's, and 169 percent higher
21 than NMED's.

22 Third, NMOGA's proposal to decrease the
23 frequency of inspections at well sites and compressor
24 stations will result in the release of thousands of
25 additional tons of volatile organic compounds and

1 methane to the atmosphere annually. These emissions
2 contribute to unhealthy levels of ozone pollution and
3 the climate crisis.

4 Importantly, frequent LDAR, as NMED has
5 proposed, can curb this cost effectively.

6 HEARING OFFICER ORTH: Ms. Hull, this is
7 Felicia.

8 Would you please slow down a little bit.

9 MS. HULL: Sure.

10 HEARING OFFICER ORTH: You speed up when you
11 read.

12 MS. PARANHOS: Thank you.

13 Q. I'd like to turn now to EDF's proposal to
14 increase leak inspections at well sites located within
15 1,000 feet of occupied places.

16 How many additional tons of volatile organic
17 compounds will our proposal remove from the atmosphere
18 annually if adopted?

19 A. I estimate our proposal will result in
20 additional 3,600 tons of VOC reductions annually.

21 Q. And you mentioned some co-benefits associated
22 with that proposal.

23 What would those be?

24 A. Yes. Our proposal will also result in 14,300
25 tons of methane and 150 tons of hazardous air pollutant

1 reductions annually.

2 Q. And did EDF prepare a New Mexico-specific
3 inventory of methane and VOC emissions that incorporated
4 data from the direct measurement studies?

5 A. Yes. As discussed in my direct testimony, EDF
6 prepared a specific New Mexico VOC inventory that we
7 used to estimate the baseline emissions that can be
8 abated by LDAR and the reductions that frequent
9 instrument-based inspections can achieve. This
10 inventory is based on observed measured emissions in New
11 Mexico and in other US oil and gas basins where
12 scientists have observed significantly higher emissions
13 than traditional bottom-up emissions inventories
14 reflect.

15 Q. Thank you.

16 And were you able to estimate the populations
17 that would be protected by our LDAR proximity proposal?

18 A. Yes. We estimate that over 2,700 children
19 under the age of five, more than 4,500 adults 65 years
20 or older, more than 5,700 people living in poverty, and
21 19,000 people of color, including over 5,800 Native
22 Americans, all live within 1,000 feet of a well site.

23 Additionally, those living in close proximity
24 to these well sites have health conditions that could be
25 exacerbated by additional air pollution. These include

1 more than 3,800 adults with asthma, over 2,200 adults
2 with coronary heart disease, almost 2,600 with chronic
3 obstructive pulmonary disease, and more than 1,200
4 adults who have experienced or are at risk of a stroke.

5 My direct testimony explains the methodology I
6 use to assess the demographics of persons protected by
7 our proposal.

8 Q. Thank you.

9 And did you also estimate the cost
10 effectiveness of our proposal?

11 A. Yes, I did. Using the methodology I described
12 in my written and -- direct and rebuttal testimony, I
13 estimate that our proposal can be conducted at a cost of
14 \$894 per ton of VOC reduced within the proximity
15 boundary. This increases the overall statewide cost
16 effectiveness of LDAR from \$317 per ton of VOC reduced,
17 per the state's proposal, to \$349 per ton of VOC
18 reduced, accounting for increased frequency within that
19 proximity boundary.

20 This does not account for savings of gas that
21 some operators can save by fixing leaks. Considering
22 quarterly and monthly inspections separately, this comes
23 to \$576 per ton VOC reduced from monthly inspections
24 within the boundary and \$1,351 per ton VOC reduced for
25 quarterly inspections within the boundary.

1 Q. Thank you.

2 And can you explain why our proposal makes the
3 NMED's proposed LDAR program more cost effective?

4 A. Yes. Adoption of our proposal increases
5 pollutant reductions at 3,365 well sites in the counties
6 subject to NMED's proposal, and it increases those
7 pollutant reductions at those sites by 73 percent. As
8 noted above, we estimate our proposal will result in an
9 additional 3,600 tons of VOC removed from the atmosphere
10 annually.

11 These additional reductions when compared to
12 the overall costs makes the overall cost effectiveness
13 of the NMED LDAR program more.

14 Q. Thank you.

15 And did you compare our estimate, EDF's
16 estimate, of the cost effectiveness of our LDAR
17 proximity proposal to quarterly and monthly inspection
18 programs adopted by other states?

19 A. Yes, I did. EDF estimates that statewide
20 quarterly inspections, including those both within and
21 outside of the proposed 1,000 foot proximity boundary,
22 will cost only \$187 per ton VOC reduced overall, and our
23 proposal increases overall statewide LDAR cost
24 effectiveness from \$317 per ton VOC reduced to \$349 per
25 ton of VOC reduced, which is highly cost effective to

1 cost/benefit analysis from other jurisdictions.

2 For example, in its 2014 cost/benefit
3 analysis, the Colorado Department of Public Health and
4 Environment, CDPHE, found quarterly inspections of
5 production facilities to be between \$1,019 and \$1,268
6 per ton of VOC reduced, and monthly inspections to be
7 between \$2,235 and \$2,752 per ton VOC reduced.

8 The EPA CTGs estimate that quarterly
9 inspections at well sites cost between \$3,453 and
10 \$15,929 per ton VOC reduced without savings, and \$2,619
11 and \$15,064 per ton VOC reduced with savings.

12 As I noted in my written testimony, both of
13 these cost effectiveness calculations are somewhat
14 outdated, the rules were promulgated in 2014 and 2016
15 respectively, whereas the EDF cost calculation accounts
16 for information taken from more recent compliance
17 reports submitted by operators to the EPA which reflect
18 real world inspection metrics.

19 Additionally, the California Air Resources
20 Board, or CARB, requires quarterly inspections of all
21 well site facilities. The CARB cost effectiveness
22 analysis associated with its rule finds that quarterly
23 inspections can be implemented at a cost of between \$575
24 and \$650 per ton of methane. Using the average
25 methane-to-VOC ratio in New Mexico, this translates to a

1 cost of between \$2,300 and \$2,600 per ton VOC reduced.

2 Note that this is also higher than EDF's
3 estimate for the cost per ton associated with our
4 proximity proposal.

5 In sum, a comparison of quarterly and monthly
6 inspection requirements adopted by other state air
7 quality regulators underscores the cost effectiveness of
8 quarterly and monthly inspections.

9 Q. And is our proximity-based proposal based on
10 rules adopted by other jurisdictions?

11 A. It is. And I believe this speaks to one of
12 the questions asked earlier. In 2019, the Colorado Air
13 Quality -- AQCC promulgated a rule that requires
14 operators to inspect well sites located within
15 1,000 feet of occupied areas more frequently than
16 facilities located outside of this radius.

17 Specifically, the Colorado rule requires
18 operators inspect well sites monthly if the well site
19 has actual uncontrolled VOC emissions of 12 ton per year
20 or greater. Operators must inspect well sites quarterly
21 if the well site has actual uncontrolled VOC emissions
22 of between two and 12 ton per year.

23 Our proposal mirrors Colorado's in that we
24 used the same 1,000 foot radius, the same definition of
25 occupied areas, and the same inspection frequencies of

1 quarterly or monthly.

2 Colorado uses a different metric than NMED to
3 bucket the well sites for purposes of its LDAR program.
4 For example, the NMED proposal uses potential to emit
5 VOCs, whereas Colorado uses actual uncontrolled VOC
6 emissions.

7 Colorado's tiered LDAR program also buckets
8 well sites into different inspection tiers than NMED.
9 For example, Colorado requires semiannual inspections
10 for well sites with actual uncontrolled VOCs between two
11 and 12 ton per year, whereas NMED proposes semiannual
12 inspections for well sites with a PTE of between two and
13 five ton per year of VOC.

14 Thus, our proposal differs from Colorado in
15 terms of the metric used to bucket wells into the
16 quarterly or monthly inspection frequencies, but
17 otherwise mirrors Colorado's rule in terms of requiring
18 operators to conduct more frequent inspections at well
19 sites located near occupied places within that 1,000
20 foot boundary than other rules require -- than the rules
21 otherwise require.

22 Q. Thank you.

23 And turning now to NMED's estimate of the cost
24 effectiveness of its LDAR requirements, did you conduct
25 a review and analysis of NMED's cost effectiveness

1 analysis for its LDAR proposal?

2 A. Yes.

3 Q. And could you please describe your analysis.

4 A. Sure. So in preparation for filing my direct
5 and rebuttal testimony, I reviewed ERG's LDAR reductions
6 and costs VOC spreadsheet, which is NMED Exhibit 69.

7 Using more recent information regarding
8 inspection costs, I calculate a per well site cost of
9 \$1,658 for semiannual LDAR. This number represents the
10 full cost of implementing an LDAR program in-house. In
11 other words, it includes LDAR setup costs, survey costs,
12 repair costs, and recordkeeping and reporting costs.
13 This number is 30 percent lower than that assumed by
14 ERG.

15 ERG relied on site-level data taken from EPA's
16 2016 Control Techniques Guidelines to estimate the costs
17 of conducting annual, semiannual and quarterly
18 inspections. EPA assumed \$1,318 for annual of OGI,
19 \$2,285 for semiannual OGI, and \$4,220 for quarterly OGI,
20 all using \$2,012.

21 Thus, ERG assumed the same costs as assumed by
22 EPA in 2016, except ERG scaled the costs for inflation
23 using the Chemical Engineering Plant Cost Index from
24 2012 dollars to 2019 dollars. So this resulted in
25 estimates of \$1,370 for annual OGI, \$2,375 for

1 semiannual OGI, and \$4,385 for quarterly OGI. Based on
2 their site-level emission estimates, ERG assumed all
3 sites would conduct semiannual LDAR at an annual cost of
4 \$2,375, and that is in 2019 dollars.

5 From my -- from my analysis, I compared the
6 ERG per well site cost to more recent 2020 EPA estimated
7 costs contained in EPA's TSD for its NSPS
8 reconsideration. In 2020, EPA estimated the per well
9 site costs for conducting semiannual inspections at
10 nonlow-producing well sites to be \$2,384 and \$1,949 at
11 low-producing well sites.

12 Notably, this estimate is lower than that used
13 by ERG in its LDAR spreadsheet. In my opinion, this
14 comparison indicates that NMED is overestimating costs.

15 I also compared NMED's average costs per ton
16 to conduct LDAR inspections with estimates conducted by
17 the Colorado Air Pollution Control Division. In 2014,
18 Colorado adopted a similar inspection program to that
19 proposed by NMED. Colorado's program, like NMED's
20 proposal, requires different -- differing inspection
21 frequencies based on a facility's emissions.

22 In 2014, Colorado estimated the average cost
23 effectiveness of conducting instrument-based inspections
24 at well sites to be \$1,259 per ton for well production
25 facilities. This assumed a tiered program consisting of

1 monthly, quarterly, annual and once in a lifetime
2 inspections.

3 NMED estimates the average cost per ton of VOC
4 to conduct LDAR inspections at New Mexico facilities
5 subject to its proposal to be \$3,506. While not exactly
6 apples to apples, a comparison of the NMED and Colorado
7 estimates demonstrates NMED's estimate is conservative.

8 Information submitted by operators to EPA in
9 compliance with EPA's LDAR requirements further
10 underscores the likelihood that ERG has overestimated
11 costs. As indicated in my direct testimony, in 2018
12 M.J. Bradley analyzed approximately 120 reports
13 containing compliance data resulting from LDAR surveys
14 at 3,832 well sites conducted by operators in 2017 and
15 2018. 3,202 of the well sites surveyed contain
16 information on survey time.

17 These reports indicate that average time to
18 conduct an LDAR survey is going down as the operators
19 have been implementing and -- state and federal LDAR
20 programs. The reports reviewed by M.J. Bradley indicate
21 an average LDAR inspection takes approximately 1.25 to
22 1.6 hours per well, including travel time.

23 In addition, information from a new study
24 demonstrates that methane mitigation industry, including
25 third-party contractors who can conduct LDAR

1 inspections, is growing. Indeed, many of these firms
2 are using efficient screening methods, such as aerial
3 surveys, that can screen multiple facilities for leaks
4 in a much shorter time frame than can be achieved using
5 ground-based OGI methods.

6 Per a recent report by Datu Research, a number
7 of methane mitigation service firms nearly doubled in
8 the last four years alone. Per this report, Datu
9 Research surveyed 98 firms between June 29th and July
10 21st, 2021. More than half of the respondents stated
11 they could at least serve 100 more well sites per day
12 than they currently serve. Nearly half noted they could
13 scale up to serve more than 500 well sites per day using
14 advance methane detection technologies such as fix and
15 service airplanes or satellites.

16 The rapid growth in advance methane detection
17 technologies is likely to significantly reduce the cost
18 of LDAR compliance. And NMED's proposal allows
19 operators to obtain approval to use alternative --
20 alternative equipment leak monitoring plans in
21 Section 116D. Most likely many of these plans will rely
22 on a combination of fixed sensors, aerial surveys and/or
23 satellites.

24 In sum, recent data regarding actual
25 inspection time and the emergence of more efficient LDAR

1 inspection methods indicates that NMED's estimate of the
2 costs associated with conducting ground-based OGI or
3 Method 21 vehicle inspections is likely quite
4 conservative.

5 Q. Thank you, Hillary.

6 And did you also analyze NMOGA's estimate of
7 the cost effectiveness of NMED's proposed LDAR program?

8 A. I did.

9 Q. And do you agree with NMOGA's cost estimates?

10 A. No, I do not.

11 Q. Would you please explain the basis for that
12 opinion.

13 A. Yes. NMOGA's cost estimates are
14 sophisticatedly -- sorry -- are significantly higher than
15 recent EPA estimates, as well as ERG estimates, and
16 286 percent higher than our estimate. NMOGA's higher
17 cost estimates are based in part on comments the
18 American Petroleum Institute submitted to EPA in 2015 on
19 EPA's 2016 draft Control Techniques Guidelines.

20 In the draft CTGs, EPA estimated a per well
21 site inspection cost of \$2,230 per well site. This is
22 very similar to the per well site cost used by ERG to
23 analyze NMED's proposal. API increased this estimate
24 approximately threefold to over \$6,400 per site. This
25 number -- sorry. I have a slide that -- move this down

1 a little bit. There.

2 This number dramatically overstates the cost
3 of LDAR and was notably rejected by EPA when it
4 finalized the 2016 CTGs.

5 As a basis for this threefold increase, API
6 presumed that all operators would create their own
7 in-house LDAR survey program rather than employ
8 third-party providers. This assumption inflates the
9 cost of implementing an LDAR program.

10 For small operators, it is often more
11 economical to hire a third-party contractor to conduct
12 these leak inspections than to purchase its own IR
13 camera and the other equipment necessary to conduct the
14 inspections themselves.

15 For example, when Colorado first adopted its
16 LDAR program in 2014, it assumed that operators who have
17 less than 500 wells would hire a third-party contractor
18 to conduct LDAR as they would not be able to fully
19 utilize an IR camera.

20 API also used basin-level averages to imply
21 that for each survey an operator would travel
22 approximately 340 miles round trip. However, this
23 estimate seems extraordinarily high.

24 Q. Thank you.

25 And did NMOGA provide any support for how, if

1 at all, API's comments to EPA are applicable to this
2 proceeding?

3 A. No.

4 Q. And did NMOGA propose a less protective well
5 site LDAR program than NMED?

6 A. Yes. NMOGA's proposal requires annual LDAR at
7 wellhead sites emitting less than 10 ton per year VOC,
8 semiannual LDAR at wellhead sites emitting between 10
9 and 25 ton per year VOC, and quarterly LDAR at wellhead
10 sites emitting more than 25 ton per year of VOC.

11 This increases the emission thresholds
12 triggering each LDAR tier by fivefold compared to NMED's
13 proposal. NMED proposes wellhead sites emitting less
14 than two ton per year of VOC conduct annual LDAR, well
15 sites emitting between two and five ton per year of VOC
16 conduct semiannual LDAR, and those emitting more than
17 five ton per year VOC conduct quarterly LDAR, as I've
18 shown in this chart.

19 Q. And did you estimate the amount of pollution
20 that would be emitted if the Board adopted NM --
21 sorry -- NMOGA's weakened LDAR proposal for well sites?

22 A. Yes. EDF estimates that NMOGA's proposal
23 would result in 23,000 additional tons of VOC and also
24 79,000 additional tons of methane left unabated
25 annually. I describe the methodology used to estimate

1 these tons in my direct and rebuttal testimony.

2 Q. And did NMOGA also propose a less protective
3 LDAR program than NMED for gathering and boosting
4 compressor stations?

5 A. Yes. NMED's proposal requires quarterly LDAR
6 for compressor stations emitting less than 25 ton per
7 year VOC and then monthly LDAR for compressor stations
8 emitting equal to or greater than 25 ton per year VOC.
9 However, NMOGA's proposal decreases the inspection
10 frequency from monthly to quarterly for compressor
11 stations emitting 25 ton per year VOC or more and from
12 quarterly to semiannual for those emitting below 25 ton
13 per year VOC.

14 Q. And did you estimate the amount of pollution
15 that would be emitted from gathering and boosting
16 stations if the Board adopted NMOGA's weakened LDAR
17 proposal?

18 A. Yes. Using the methodology described in my
19 rebuttal testimony, I estimate NMOGA's proposal will
20 result in up to 8,400 additional tons of VOC and up to
21 34,000 additional tons of methane leaked annually using
22 EDF emission estimates. Using 2020 EPA emission
23 estimates, I find that NMOGA's proposal results in 680
24 additional tons of VOCs and 2,700 additional tons of
25 methane leaked annually.

1 Q. And does your analysis indicate the need for
2 frequent instrument-based inspections at both well sites
3 and gathering and boosting compressor stations?

4 A. Yes, it does.

5 Q. Thank you.

6 And then, lastly, do you support NMED's
7 proposed LDAR requirements for both well sites and
8 gathering and boosting compressor stations?

9 A. Yes, I do. Based on my analysis, NMED's LDAR
10 requirements for well sites and gathering and boosting
11 compressor stations is highly cost effective and will
12 remove 153,000 tons of VOCs from the atmosphere
13 annually. In addition, it has co-benefits related to
14 the reduction of 531,000 tons of methane annually.

15 MS. PARANHOS: Thank you.

16 That concludes Ms. Hull's summary of her
17 direct and rebuttal prefiled written testimony.

18 I do have a few questions on surrebuttal.

19 HEARING OFFICER ORTH: Okay. Thank you.

20 Q. (BY MS. PARANHOS) Hillary, did you hear
21 Kinder Morgan's testimony earlier today regarding a
22 joint proposal to inspect compressor stations in the
23 transmission segment between EDF and Kinder Morgan?

24 A. Yes. We agree. EDF and Kinder Morgan are
25 jointly proposing a minimum quarterly inspection

1 requirement in compliance with EPA requirements.

2 Q. Thank you.

3 And are you aware of testimony earlier --
4 actually, I guess it was last week now -- regarding the
5 potential impact on stripper wells of NMED's proposed
6 rules including the leak detection and repair
7 requirements?

8 A. Yes.

9 Q. And have you conducted any kind of analysis
10 regarding the ownership of stripper wells in New Mexico?

11 A. Yes.

12 Q. Could you please provide a summary of that
13 analysis to the Board.

14 A. Sure. EDF pulled data from New Mexico OCD and
15 our methane inventory in order to analyze -- well, our
16 methane inventory which we converted into the VOC
17 inventory in order to analyze ownership of stripper
18 wells.

19 According to NMOCD, as of 6/28/2021 there are
20 34,158 active oil and gas stripper wells statewide, or
21 62 percent of currently active wells in New Mexico.
22 Production from active stripper wells makes up about
23 3 percent of oil production and 5 percent of gas
24 production according to the Operator Annual Production
25 Report of 2020. However, operators who own active

1 stripper wells are responsible for 99.6 percent of
2 statewide oil production and 97 percent of gas
3 production.

4 Q. And, Ms. Hull, in your opinion, is the
5 implication of your analysis showing that operators who
6 own active stripper wells are responsible for
7 99.6 percent of oil production and 97 percent of gas
8 production statewide?

9 I'm sorry. That was -- I misstated that.

10 What is your opinion of the implication of
11 your analysis?

12 A. In my opinion, this demonstrates that
13 companies who operate stripper wells also operate many
14 higher-producing wells. This would suggest that even if
15 an operator chose to permanently plug and abandon a
16 particular low-producing well or wells, the company
17 would still generate considerable income from its
18 higher-producing wells.

19 Q. Thank you.

20 And in your analysis did you also look at the
21 emissions from stripper wells?

22 A. Yes, I did. Using our well site inventory, we
23 also estimate that stripper wells are responsible for a
24 disproportionately large portion of emissions, over
25 22 percent compared to their low share of production, as

1 David Lyon previously discussed. This indicates the
2 need for frequent instrument-based inspections at these
3 well sites to identify abnormal operating conditions
4 that result in excess venting or leaking.

5 MS. PARANHOS: Thank you so much, Hillary.

6 I have no further questions for Ms. Hull.

7 HEARING OFFICER ORTH: Thank you.

8 Ms. Hull, would you stop sharing for just a
9 moment, please.

10 MS. HULL: Certainly.

11 I'll figure it out.

12 MR. HISER: Madam Hearing Officer?

13 HEARING OFFICER ORTH: Yes. Mr. Hiser?

14 MR. HISER: I have a couple questions.

15 CROSS-EXAMINATION

16 BY MR. HISER:

17 Q. And is it Ms. Hull or Dr. Hull?

18 I'm sorry. I missed that section of your
19 intro.

20 A. Ms. is fine.

21 Q. Ms. Hull?

22 Thank you for your presentation.

23 You repeated a couple of times that NMOGA was
24 using the API number for its costing.

25 Where in its testimony or anywhere has NMOGA

1 adopted that for its actual cost analysis?

2 A. My understanding was that NMOGA did not
3 actually adopt it, but used it as input for its
4 underlying assumptions. So --

5 Q. Isn't it a bit misleading to tell the Board
6 that if we didn't use that number, that our estimates
7 were 286 percent high?

8 MS. PARANHOS: Objection.

9 MS. HULL: (Unintelligible and/or inaudible.)

10 MS. PARANHOS: Objection. NMOGA's absolutely
11 relied on API's comments. They both submitted two
12 separate exhibits that are EPA's comments that include
13 detailed critiques of EPA's cost estimates for the CTGs,
14 and they relied on the information in those exhibits in
15 their comments which they included in their red-line of
16 the NMED proposal. They specifically refer to those EPA
17 comments and indicated that based on those comments NMED
18 has underestimated costs. And that is precisely what
19 Ms. Hull is critiquing.

20 MR. HISER: Ms. Hull, I believe, testified
21 that NMOGA's cost estimates that were presented on a
22 pound per -- pound per ton -- or dollar per ton basis
23 were 286 percent high. I don't believe that NMOGA ever
24 did any such thing, and I was asking her to show where
25 we did.

1 HEARING OFFICER ORTH: All right. It was
2 posed in an argumentative way, Mr. Hiser.

3 If you would please rephrase that question.

4 Q. (BY MR. HISER) So, Ms. Hull, is there a place
5 in the NMOGA testimony where they -- where NMOGA was
6 calculating a dollar per ton cost to the LDAR proposal
7 where it used a number for the base cost of LDAR other
8 than the ERG number? Understanding that NMOGA may have
9 used a different tonnage for the impact of the LDAR
10 process.

11 A. I haven't committed the NMOGA testimony to
12 memory. So I would need to look.

13 Q. Okay.

14 In page 7 of your direct testimony, you talk
15 about trying to come up with the most current
16 information in developing your ground-up inventory for
17 purposes of calculating PTEs.

18 Did you use the Greenhouse Gas Reporting
19 Program inventory for that purpose?

20 A. Partly, yeah. So the inventory is compiled
21 using various sources of available data, one of which is
22 the Greenhouse Gas Reporting Program.

23 Q. Okay.

24 In your direct testimony at page 11, you show
25 some calculations about -- and calculate, I believe, a

1 \$349 per ton VOC produced.

2 Do you have an exhibit or anything which
3 actually shows your work and how you went from the cost
4 to the final value? And if so, could you direct me to
5 what that exhibit is?

6 A. Sorry. Are you -- are you asking if I've laid
7 out an exhibit with the calculation?

8 Q. Yes.

9 A. I don't know that the underlying calculation
10 is included in the exhibit, but I know that the data is.

11 Q. So you supplied data, but you didn't actually
12 show the complete calculation stream? Is that what you
13 did?

14 I'm sorry. I didn't hear your answer.

15 A. I have to check.

16 Q. Okay. That's fine. Take your time.

17 MS. PARANHOS: So just to move things along, I
18 believe Ms. Hull in both her direct and rebuttal
19 prefiled written testimony provided detailed explanation
20 of the methodology that she used to estimate costs, both
21 in order to estimate the costs of EDF's LDAR proximity
22 proposal, and also to provide a critique of NMED's cost
23 estimate, as well as NMOGA's cost estimate.

24 MR. HISER: I understand, Ms. Paranhos,
25 reading her testimony that she did provide details of

1 what she did. I was just wondering if she ever actually
2 presented an exhibit that walked through each stage,
3 because I was having trouble following everything that
4 had been done in her testimony. And so it's mostly to
5 help me understand her testimony that I was looking for
6 an exhibit.

7 But if you have one readily available, I
8 accept that and can move on.

9 MS. HULL: I'll offer that. It's a pretty
10 standard cost/benefit calculation. So looking at the
11 total impact of the cost of the proposal and then
12 looking at the total impact of the reductions and
13 dividing the two.

14 Q. (BY MR. HISER) And in that cost/benefit
15 analysis that -- as you've just described it, how do you
16 deal with the variations in the PTE of the underlying
17 facility?

18 A. We approached it a couple of ways. We looked
19 at facilities with and without what we consider to be
20 super-emitters.

21 Q. Okay.

22 So you did two calculations, one including and
23 one excluding super-emitters?

24 A. Yes. And then the one that we ended up
25 including is the one that excludes super-emitters,

1 because we think that's closest to how an operator would
2 calculate its PTE.

3 Q. In slide 5, I believe, of your testimony that
4 you did today, you show that you included facilities
5 with a PTE of zero through, I think, 205.

6 How did you handle the problem of the PTE zero
7 facility in your calculation?

8 A. We included those.

9 Q. Well, wouldn't the control cost of a facility
10 with a PTE of zero be effectively infinite?

11 A. Yeah. We're looking at it in aggregate.

12 Q. Okay.

13 A. For the entire range of that bucket, I guess.

14 Q. Okay.

15 And did I hear correctly in your testimony
16 that you believe the current cost of an LDAR program is
17 about \$1,658 if it's done semiannually, and is that for
18 a well site?

19 A. Hold on.

20 Yes. That's a per well site cost of 1,658 for
21 semiannual LDAR.

22 Q. And can you tell us again what the source was
23 and the time frame or region of country?

24 A. Source of that --

25 (Simultaneous discussion.)

1 Q. -- yeah, piece of information.

2 A. Um-hum. Yeah. That comes from EPA. The
3 basis is the 2020 EPA reconsideration TSD, and we've
4 revised that number slightly to reflect data coming in
5 from the compliance reports submitted to EPA for Quad
6 0a.

7 Q. Okay.

8 And is -- when you've -- throughout this
9 testimony a couple places you refer to an EPA 2020 cost,
10 is that coming from that reconsideration TSD?

11 A. Yes.

12 Q. Okay. Thank you very much.

13 And then you have testified, I think, this was
14 from -- and you cited a company's name as the data
15 for -- that an average time for LDAR now is decreased to
16 1.25 to 1.6 hours.

17 Was that on a per well basis?

18 A. It's per well, and it includes travel time.

19 Q. Okay.

20 And then in much of the -- I think that was --
21 maybe it was after slide 11, but you talked about
22 advanced technologies that are being used.

23 Would those be actual Method 21s, or those
24 would be different technologies using OGI or other
25 techniques?

1 A. Those would be different technologies, so
2 likely satellite or tower-mounted or even drone-based.
3 There -- there are various technologies out there that
4 are -- would be considered in that category.

5 MR. HISER: Those are the questions I had for
6 you. I appreciate your clarification on those points.
7 Thank you.

8 MS. HULL: Sure thing.

9 HEARING OFFICER ORTH: Thank you, Mr. Hiser.
10 Mr. Rose?

11 MR. ROSE: Yeah. Let me unmute first.

12 CROSS-EXAMINATION

13 BY MR. ROSE:

14 Q. Ms. Hull, just some questions for
15 clarification.

16 If I heard your testimony correctly, you
17 talked about the EDF proposal being more protective, and
18 I was just trying to figure out what you meant by more
19 protective.

20 Were you referring to concentrations below the
21 ozone NAAQS or something else?

22 A. I was speaking about the impact of -- yeah, of
23 the VOC on -- VOC and other pollutants on the health of
24 the populations within the boundary.

25 Q. And is that related to exceedances of the

1 federal ozone NAAQS or exposure to some other
2 contaminants that are within -- that are being emitted
3 from these sites?

4 A. It's really a reference to all of them, any of
5 the pollutants that are associated with oil and gas that
6 are creating negative health impacts.

7 Q. And -- and in terms of those health impacts, I
8 assume that if I had questions about that I should ask
9 Dr. Thompson about what those health impacts are and how
10 that -- how that's considered in terms of your proposal?

11 A. I was going to suggest just that. Yes.

12 MR. ROSE: Okay. Thank you. I have no
13 further questions.

14 HEARING OFFICER ORTH: All right. Thank you.

15 Ms. Fox, I think I saw you on screen there.
16 Go ahead.

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

18 I just have a couple of questions for
19 Ms. Hull.

20 CROSS-EXAMINATION

21 BY MS. FOX:

22 Q. Hello, Ms. Hull.

23 My name is Tannis Fox. I'm with Western
24 Environmental Law Center, and I represent the parties
25 that are -- we are calling ourselves Clean Air Advocates

1 in this proceeding.

2 And thank you for your testimony.

3 Ms. Hull, you're familiar with Colorado's
4 rules on LDAR, correct?

5 A. Yes, I am.

6 Q. Specifically, you're familiar with the
7 Colorado rule that's been put into place that mirrors
8 EDF's and Clean Air Advocates' proximity proposal; is
9 that correct?

10 A. Sorry. Yes, I am.

11 Q. Do you know how long that rule in Colorado has
12 been in effect? Approximately?

13 A. I do not.

14 Q. Has the Colorado Air Quality Control
15 Commission recently proposed new LDAR frequencies for
16 oil and gas facilities to control ozone precursors and
17 hydrocarbons?

18 A. Yes.

19 Q. And what are the new LDAR -- do you know the
20 new LDAR frequencies that are being proposed?

21 A. Not off the top of my head. Sorry. No, not
22 off the top of my head.

23 Q. Do you know if the new rules require LDAR
24 frequencies that are the same or similar to the ones
25 that EDF is proposing in its proximity proposal to apply

1 to facilities that are close to -- that are within
2 disproportionately impacted communities?

3 A. Yes. They are.

4 Q. And do you know in general what is meant by a
5 disproportionately impacted community?

6 A. Yes. So that would be a community that is
7 impacted more so by the production and processing and
8 transport of oil and gas than others. So those within
9 closer proximity would be disproportionately impacted,
10 because they would have higher exposure to those
11 pollutants.

12 Q. And so are the frequencies that are being
13 proposed for facilities close to disproportionately
14 impacted communities -- are those monthly and quarterly
15 inspection frequencies?

16 A. Yes, they are.

17 Q. And so the Colorado Air Quality Control
18 Commission is proposing to extend its LDAR frequencies
19 that now apply to facilities that are within 1,000 feet
20 of occupied areas more broadly to disproportionately
21 impacted communities; is that correct?

22 A. Yes, that is correct.

23 MS. FOX: That's all the questions I have.
24 Thank you.

25 HEARING OFFICER ORTH: Thank you.

1 Mr. Jaynes, I see you.

2 MR. JAYNES: Thank you, Madam Hearing Officer.

3 CROSS-EXAMINATION

4 BY MR. JAYNES:

5 Q. Good afternoon, Ms. Hull.

6 I am Daniel Jaynes. I'm with the University
7 of New Mexico Law Clinic, representing Center for Civic
8 Policy and NAVA Education Project.

9 I just have a few questions for you.

10 So, Ms. Hull, in your testimony you mention it
11 is estimated that over 35,000 New Mexicans live within
12 1,000 feet of a well site, of those approximately 19,000
13 are people of color, including over 5,800 Native
14 Americans; is that correct?

15 A. Yes.

16 Q. And is the percentage of people of color
17 including Native Americans living within the 1,000 feet
18 of a well site proportional to the demographics of New
19 Mexico residents living within the state?

20 A. No, it is not. It's disproportionate. A
21 higher percentage of people of color and Native
22 Americans live within 1,000 feet of a well site in --
23 represented in New Mexico as a whole. And I think that
24 answers Tannis' question from earlier, as well.

25 Q. Thank you.

1 And do you have any data or any understanding
2 of whether marginalized populations you describe live in
3 close proximity to wells on state lands as opposed to
4 wells within the Navajo Nation?

5 A. Yes. There are populations from -- from both
6 that live within those proximities. Depending on the
7 parameter you're looking at, it varies, but about
8 90 percent live on nontribal lands, and about 10 percent
9 live on tribal lands within those boundaries.

10 Q. Great.

11 And, Ms. Hull, the Board has previously
12 inquired about regulations on the Navajo Nation.

13 Are you aware of whether the Navajo Nation has
14 taken any actions to address emissions from wells on the
15 Navajo Nation territory?

16 A. Yes. They have proposed a comprehensive
17 regulatory program for new and existing facilities,
18 without any exemptions for low-producing or low-emitting
19 wells.

20 Q. Great. Thank you.

21 And if the EIB adopts a less stringent
22 frequency of leak inspections at wellhead facilities, as
23 proposed by NMOGA, is it your opinion that people of
24 color and Native Americans will experience additional
25 exposure to toxic volatile organic compounds?

1 A. Yes. Less stringent frequency of leak
2 inspections at wellhead facilities could result in up to
3 23,000 tons of additional VOCs leaked into the
4 atmosphere from wellhead facilities located in areas
5 that are predominantly occupied by people of color and
6 Native Americans.

7 Q. Thank you.

8 And, Ms. Hull, have you read through the
9 rebuttal testimony of Lee Ann Hill?

10 A. Yes.

11 Q. Based on Ms. Hill's testimony and your
12 knowledge of the demographic makeup of the populations
13 living within 1,000 feet of a well site, do you have any
14 opinion on whether people of color, Native Americans are
15 exposed to greater health risks from pollution from oil
16 and gas production?

17 A. Yes. People of color and Native Americans
18 living within 1,000 feet of a well site are
19 disproportionately higher risk of health conditions
20 exacerbated by additional air pollution, which includes
21 asthma, heart disease and cancers.

22 MR. JAYNES: Thank you, Ms. Hull.

23 Madam Hearing Officer, we have no further
24 questions for Ms. Hull.

25 HEARING OFFICER ORTH: Thank you, Mr. Jaynes.

1 Any other party have questions of Ms. Hull?

2 I don't see anyone else's screen.

3 I'll turn now to questions from the Board.

4 While the Board is asking its questions, if
5 you're an attendee on this platform, please reach out
6 through the chat with any questions.

7 CROSS-EXAMINATION

8 BY THE BOARD:

9 HEARING OFFICER ORTH: Madam Chair?

10 CHAIR SUINA: Thank you, Madam Hearing
11 Officer.

12 And thank you, Ms. Hull, for your testimony.

13 And I just wanted to kind of add to what the
14 previous legal counsel was talking about in terms of
15 some of the demographics.

16 I noted in your -- in your written testimony
17 that you utilized the US Census Bureau's American
18 Community Survey five-year estimates; is that correct?

19 MS. HULL: Yes, that's correct.

20 CHAIR SUINA: And are you -- and also the
21 Center -- CDC 2020 Places data set, as well.

22 MS. HULL: Correct.

23 CHAIR SUINA: And being from one of the, you
24 know, Native American communities, I sort of have a
25 unique perspective on this in terms of those data sets.

1 Have you -- do you know about the difficulties
2 and the challenges for gathering accurate data counts
3 and population for Native American communities?

4 MS. HULL: I would imagine that it certainly
5 exists. Yes. I don't have any data to support that
6 assertion, but yeah.

7 CHAIR SUINA: Okay. Okay.

8 Yeah. And I didn't know if you took that into
9 consideration because of the difficulty and challenges
10 in the past of undercounting in -- in Native American
11 communities.

12 MS. HULL: Unfortunately, there wasn't really
13 any way to account for that quantitatively. So it's
14 more of just something we have to note. But, yeah,
15 unfortunately, we just had to use what was available.

16 CHAIR SUINA: Okay. All right.

17 So if it was undercounted, that means it's an
18 underestimate of the potential impact to populations, in
19 particular in minority -- or Native American
20 communities; is that --

21 MS. HULL: Yes. I think it would be a safe
22 assumption that it could be conservative.

23 CHAIR SUINA: Okay. Thank you for that.

24 In addition to that -- I did ask your
25 colleague, Dr. Lyon, this question earlier. Let me pull

1 it up here.

2 So I was -- you know, again based on the
3 various studies that you've referenced and your
4 experience, can you elaborate more on the proposal, the
5 frequent inspections within 1,000 feet? Like why was
6 the 1,000 foot chosen instead of, say, 500, 2,000 feet,
7 3,000 feet? Could you elaborate more?

8 MS. HULL: Yeah. I mean, I think the most
9 direct answer is that it's mirrored on Colorado's rule
10 that does the same. Right. And Colorado had, you know,
11 pulled together analytics to look at the impacts on
12 facilities and populations in that boundary, as well,
13 and so we sort of mirrored what they had implemented.

14 CHAIR SUINA: Okay. Thank you so much for
15 that.

16 And so I think that's all I have for right
17 now. Thank you, Ms. Hull.

18 MS. HULL: Sure.

19 HEARING OFFICER ORTH: Vice-Chair Trujillo
20 Davis?

21 VICE-CHAIR TRUJILLO DAVIS: Yes.

22 I apologize, Ms. Hull, but I didn't -- wasn't
23 able to catch the full testimony so I'll have to look
24 back at it. So I don't have any questions for now.
25 Thank you.

1 MS. HULL: Thanks.

2 HEARING OFFICER ORTH: Thank you.

3 Member Bitzer?

4 MEMBER BITZER: Yeah.

5 First of all, I -- I think it takes a Stanford
6 grad to throw a big, fancy word out there like -- what
7 was it -- deleterious. I had to look that up --

8 MS. HULL: You caught me.

9 MEMBER BITZER: -- being a Berkeley boy and
10 all. So anyway, nice credentials.

11 Has anybody considered that -- if I could
12 steal one from Bob Dylan, it helps to know which way the
13 wind blows?

14 Because you got a CEP around a well that's
15 circular, but if we got a prevailing wind, and in New
16 Mexico we tend to have them, because the windmills point
17 this way, because the wind is always coming from that
18 way.

19 Wouldn't it make more sense to have kind of an
20 oval area where you have schools or kids that's downwind
21 of -- typically downwind and maybe extends this same
22 square footage about, what -- about of 3.14 million
23 square foot plume area that you might want to consider?
24 Has anyone ever looked at that?

25 MS. HULL: I am not sure. I would think that

1 it's part of the consideration that went into the
2 selection of the 1,000 foot barrier, you know, as well
3 as the notion that the wind changes. So, you know, in
4 order probably to be the most protective, I would think
5 it would just be a circle, naturally.

6 But I am unaware of investigation otherwise.

7 MEMBER BITZER: Okay. I was just -- that's
8 the only thing. It just occurred to me because we were
9 seeing maps, yours, which was very interesting, you had
10 wells around the school and the community in that photo,
11 and then the previous presenter had these photos,
12 satellite type photos of plumes heading in one
13 direction. I was like, oh, I know that's a typical wind
14 pattern, I'll bet -- I'll bet the actual downwind damage
15 is being done beyond 1,000 feet in that direction and
16 not a few hundred feet in the other direction.

17 So -- but, of course, it doesn't always blow
18 the same direction. So I guess this is sort of an
19 average, throwing a dart type of shape.

20 Anyway, that's all I had. Thank you.

21 MS. HULL: Thanks.

22 HEARING OFFICER ORTH: Thank you.

23 Member Garcia?

24 MEMBER GARCIA: Yes. Thank you. I just have
25 one clarifying question, if I may.

1 Ms. Hull, you mentioned that Navajo had
2 proposed a comprehensive program of inspections.

3 That's not in this proceeding, right? Or
4 where was that proposed? For who?

5 MS. HULL: That is not in this proceeding, and
6 I am not privy to the particulars of that proposal. I
7 just know that it is -- it has been proposed and it is,
8 I believe, in the process of being finalized.

9 MEMBER GARCIA: Is that Navajo EPA or --

10 MS. HULL: I -- I do not know.

11 MEMBER GARCIA: Okay. Thank you.

12 HEARING OFFICER ORTH: Thank you.

13 Member Honker?

14 MEMBER HONKER: No questions. Thank you.

15 HEARING OFFICER ORTH: All right. Thank you.

16 Does any of that prompt follow-up with you,
17 Ms. Paranhos?

18 CHAIR SUINA: I have a follow-up.

19 HEARING OFFICER ORTH: Sorry. Madam Chair.

20 CHAIR SUINA: Thank you, Madam Hearing
21 Officer. Sorry. I was wondering if somebody else might
22 bring up this question.

23 I just wanted to go back again in your
24 testimony, again just reiterating back from Dr. Lyon's
25 presentation, as well.

1 In terms of how we transition from talking
2 about methane to talking about VOCs, so you base the --
3 some of your analysis on the methane inventory and then
4 utilizing some type of conversion or relationship to
5 transition to VOC inventories calculation?

6 MS. HULL: Um-hum.

7 CHAIR SUINA: Is that correct?

8 MS. HULL: That's correct, yes.

9 CHAIR SUINA: Okay.

10 MS. HULL: I'm happy to elaborate if you'd
11 like.

12 CHAIR SUINA: Yes. Can you elaborate on that?
13 I'm still trying to get my head around that.

14 MS. HULL: Yeah. So, you know, as David was
15 mentioning earlier, methane and VOC are co-pollutants
16 in -- for most of these sources, and so what we used was
17 the Western Regional Air Partnership inventory that it
18 had put together, and they come up with both VOC and
19 methane inventories on a source level by county. So we
20 were able to develop methane-to-VOC ratios in order to
21 convert our methane inventory into a VOC inventory based
22 on New Mexico-specific data.

23 This is not unprecedented. Right? EPA
24 uses -- similarly uses ratios to convert between methane
25 and VOC in its rulemakings when it discusses the

1 benefits of multi-pollutant versus single-pollutant cost
2 for LDAR. So EPA also investigates, you know, what
3 costs look like if you're just looking at reductions of
4 VOC versus VOC plus methane, et cetera. And to do that
5 it has a standard ratio that it applies, as well.

6 CHAIR SUINA: So EPA -- excuse me. So EPA has
7 a standard ratio, but from how you explained it, you
8 utilize New Mexico-specific data.

9 MS. HULL: That's correct. Yes.

10 CHAIR SUINA: Okay.

11 So it was probably a little different ratio
12 than EPA's; is that correct?

13 MS. HULL: It was a little bit different.
14 Yes. But not significantly. We just wanted to use data
15 that was specific to the state.

16 CHAIR SUINA: Okay. Thank you for that
17 clarification. Appreciate it.

18 MS. HULL: Certainly.

19 CHAIR SUINA: Thank you, Madam Hearing
20 Officer.

21 HEARING OFFICER ORTH: Thank you.

22 Ms. Paranhos, did any of that raise redirect
23 for you?

24 MS. PARANHOS: No, Madam Hearing Officer.

25 HEARING OFFICER ORTH: All right. Thank you.

1 Thank you very much, Ms. Hull, for your
2 testimony.

3 MS. HULL: Thank you, Madam Hearing Officer.

4 HEARING OFFICER ORTH: Thank you.

5 I saw on the spreadsheet an asterisk by
6 Dr. Thompson's name, and I wasn't sure whether that was
7 intentional or not. But I'm wondering if perhaps we
8 could take Mr. Smitherman next, because he's not
9 available tomorrow, and when I looked at the
10 availability of your witnesses, it seemed that
11 Dr. Thompson might be if we get to that point. I'm
12 not -- we may still be able to take her today.

13 Is that okay?

14 MS. PARANHOS: I am checking with her right
15 now, but I do believe that she is certainly available
16 this afternoon, and I hope as well tomorrow morning.

17 HEARING OFFICER ORTH: Okay.

18 MS. PARANHOS: I haven't got a response back
19 but --

20 HEARING OFFICER ORTH: Just got a thumbs up.

21 MS. THOMPSON: Yeah. That is fine.

22 MS. PARANHOS: There she is.

23 MS. THOMPSON: That is fine.

24 HEARING OFFICER ORTH: Thank you very much.

25 So let's see. It's 4:22.

1 Where are you, Mr. Hiser?

2 MR. HISER: I'm here, Madam Hearing Officer.

3 HEARING OFFICER ORTH: Hello.

4 We do need to take a break before the five
5 o'clock public comment session. I will note that at the
6 moment I have just one public commenter.

7 MR. HISER: Okay.

8 HEARING OFFICER ORTH: So accounting for the
9 break, would you want to do that at 4:45, or would you
10 want to do that now and come back?

11 MR. HISER: Honestly, Madam Hearing Officer,
12 whichever you think is better for the Board and the
13 court reporter.

14 HEARING OFFICER ORTH: All right. I think
15 it's better if we take a break now.

16 Cheryl? Is that okay?

17 Yeah.

18 All right. Let's take a break now, come back
19 at 4:40 and do what we can with Mr. Smitherman then.
20 Thank you.

21 MR. HISER: Thank you, Ms. Thompson, for
22 help -- letting us get Mr. Smitherman in. We really
23 appreciate that.

24 (Proceedings in recess from 4:23 p.m. to
25 4:40 p.m.)

1 HEARING OFFICER ORTH: Let's come back from
2 the break, please.

3 Mr. Hiser.

4 MR. HISER: Madam Hearing Officer.

5 HEARING OFFICER ORTH: Do we have
6 Mr. Smitherman?

7 MR. HISER: I believe we do.

8 MR. SMITHERMAN: I'm here.

9 MR. HISER: Yes, we do.

10 HEARING OFFICER ORTH: Thank you.
11 Go ahead.

12 JOHN R. SMITHERMAN

13 (Relating to Topic Order 27)

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

16 DIRECT EXAMINATION

17 BY MR. HISER:

18 Q. So, Mr. Smitherman, could you please state
19 your name for the record?

20 A. John R. Smitherman.

21 Q. And your testimony in this matter has
22 previously been admitted; is that correct?

23 A. That's correct.

24 Q. As Exhibit A1 and Rebuttal Exhibit -- ah, I
25 misplaced it -- 40 -- is it 43? 41. 41; is that

1 correct?

2 A. It's late in the day. I'll have to trust you.

3 Q. Thank you for that.

4 Do you have any corrections to your direct
5 testimony?

6 A. Not that I recall.

7 Q. I just wanted to recollect for you.

8 Did you find a small -- a mathematical error
9 in one of the tables in the -- in your testimony?

10 A. Oh, thank you for reminding me. Yes, I did.
11 It's basically I referred to the wrong cell in a
12 spreadsheet. We corrected that. And that was in
13 between the filings that NMOGA made and today.

14 Q. And so you've corrected that and some
15 testimony -- and some of the materials you're going to
16 present today; is that correct?

17 A. I will talk about that today. It makes a
18 small change in actually some numbers on two different
19 spots, because it cascades.

20 Q. Okay. So we'll point that out when we get to
21 it. Thank you very much.

22 A. Thank you.

23 Q. Did you prepare a summary of your direct
24 testimony?

25 A. I did.

1 Q. Would you like to present that summary?

2 A. I'd be happy to do so.

3 I'll start with direct, if you don't mind.

4 Is that sharing properly?

5 Q. Yes.

6 A. Fabulous. It's not advancing properly. There
7 we go.

8 Thank you, Board Chair, Vice-Chair, Board
9 Members, Madam Hearing Officer.

10 To start with, in Section 2. -- excuse me --
11 20.2.50.116, LDAR, NMOGA -- NMOGA has -- had offered and
12 NMED has now accepted our suggestion to allow up to 30
13 days for a repair of a leak that's discovered through
14 LDAR, with some exceptions. We appreciate that change.

15 As you probably have heard from other
16 witnesses, sometimes things take longer than we expect
17 them to take. Sometimes they take longer than we'd like
18 them to take. And to be able to reliably repair all
19 leaks that we find, most are within 15 days, which just
20 is probably unmanageable.

21 Now, currently, we have a lot of supply chain
22 issues due to the pandemic, but even in the future,
23 we're still going to have issues trying to get parts
24 when they're not on hand.

25 We also have the opportunity to repair --

1 excuse me -- to tag certain parts that you can't repair
2 in that time with a tag labeled Repair Delayed so you'll
3 know which ones that have been found that have not been
4 able to be addressed in that time frame. So we
5 appreciate NMED accepting that change.

6 Also, operators are already obligated to
7 perform leak detection and repair on equipment either
8 because they've got a permit that requires it or they're
9 subject to NSPS Quad 0, Quad 0a or the series. So we
10 want to make sure that these two programs align and are
11 not duplicative of each other. So we had suggested
12 language that would make sure that we do avoid that.
13 And so far I've heard that NMED has accepted that
14 concept.

15 Q. And so by that you mean that you heard
16 Ms. Kuehn's testimony earlier today that if we perform a
17 Quad 0 or Quad 0a inspection and it meets the
18 requirements of the Part 50 program it can be used for
19 both?

20 A. That's correct. That's exactly what I heard.
21 So I assume that they're not going to be duplicative.

22 I'm trying to use my keyboard to advance, and
23 it's not being very cooperative.

24 Also, NMOGA has suggested that not all
25 equipment that's used in air and steam service, but also

1 equipment that deals with fluids that have less than
2 10 percent VOC by weight, including coal bed methane, be
3 removed from the LDAR requirements, also. At a minimum,
4 we need to exclude all nonhydrocarbon gases, nitrogen,
5 CO2 and H2S and things like that.

6 As a reminder to everyone, this part is
7 intended to reduce ozone precursors, NOx and VOCs, and so
8 it is appropriate that we apply these LDAR requirements
9 to sources that have fluids in them that have
10 significant percentages of NOx or VOCs, particularly
11 VOCs.

12 Also, I believe that NMED should align the AVO
13 inspection frequencies with the OCD's inspection
14 requirements as applicable. We -- we really understand
15 that AVOs are an important part of a full complement of
16 inspection protocols, but it does not make sense to have
17 two different rules from different agencies that don't
18 align. It creates confusion that's avoidable.

19 Q. So for this it would be -- you would be
20 seeking something, for example, like a confirmation from
21 NMED that AVOs conducted to meet the OCD requirement may
22 also be used to satisfy the NMED requirement?

23 A. That's correct. Optimally we would define the
24 requirements for AVOs under this rule to align with the
25 requirements under the OCD rule, but at a minimum, they

1 would recognize each other.

2 The NMED's latest red-line, their September
3 16th red-line, they suggested that LDAR frequencies
4 result in extraordinarily high emissions reduction
5 costs, and costs are important. Imposing requirements
6 that are not cost effective, as you've heard many, many
7 witnesses say, will result in overly burdensome
8 compliance costs that will relate to negative impacts to
9 state and local communities, because it will end up
10 causing wells to be plugged prematurely.

11 I've also testified that there are flaws in
12 ERG's, that's Eastern Research Group's, anticipated cost
13 and emission reduction calculations. We will talk about
14 that in more detail later, but I do want to incorporate
15 those statements here, and I'll use my surrebuttal for a
16 deeper dive into those issues.

17 That concludes my summary of the direct and
18 rebuttal.

19 MR. HISER: I think, Madam Hearing Officer,
20 for the purposes of expedition, we were going to move to
21 Mr. Smitherman's surrebuttal, as well, to get that done.
22 And --

23 HEARING OFFICER ORTH: Yes. Thank you.

24 MR. HISER: And what I think would be most
25 expeditious is the parties have reached agreement, I

1 think, on most issues. There's, I think, like seven
2 slides where there might be a proffer, and maybe it
3 would be easiest just for when Mr. Smitherman reaches
4 that, we just state what the proffer would be, and then
5 we move on to the next slide after that, if that meets
6 your approval.

7 HEARING OFFICER ORTH: I think that sounds
8 like an efficient way to do it. Thank you.

9 MR. HISER: Okay.

10 Q. So, Mr. Smitherman, you can please bring up
11 your surrebuttal slides.

12 A. Working on that now, sir.

13 MR. HISER: And, Madam Hearing Officer, could
14 you check with the reporter and make sure she's hearing
15 Mr. Smitherman okay?

16 He seems a little bit fainter than he has been
17 in the past.

18 HEARING OFFICER ORTH: Cheryl, how we doing?

19 THE REPORTER: Yes. He is a little soft
20 spoken. I would like him to speak up if he can.

21 MR. SMITHERMAN: I'll do my best.

22 Is that better?

23 THE REPORTER: That is much better. Thank
24 you.

25 MR. SMITHERMAN: Thank you.

1 Before I open my slides, first and foremost,
2 NMOGA supports a requirement on LDAR at least annually
3 on every well site, every gathering and boosting
4 station, every gas processing plant and every
5 transmission compressor station in New Mexico. This is
6 not a debate about whether LDAR should be required.
7 It's a discussion about the frequency of the LDAR
8 surveys, how many times per year they should be
9 required.

10 No one should miss the fact that NMOGA is
11 supportive of expanding LDAR to the up to 92 percent of
12 wells in New Mexico that are not currently required to
13 perform LDAR surveys under the NSPS Quad 0, Quad 0a
14 series. That is adding up to 43,982 wells to LDAR.
15 Please do not lose sight of that as we discuss
16 frequencies and thresholds.

17 LDAR is expensive, and costs matter. More
18 frequent surveys lead to more compliance costs. More
19 frequent surveys also lead to reduction in emissions.
20 However, I'm going to show you that the added VOC
21 emissions reductions from NMED's proposed increased LDAR
22 frequency do not warrant the extraordinary added costs
23 on a dollar per ton basis.

24 To get to that results, I will first walk you
25 through how LDAR costs and emissions reductions are

1 calculated. While doing so, I will make the case that
2 the data that NMOGA used in its calculations are the
3 best data available for that purpose, contemporary, New
4 Mexico-specific data. I will contrast our data with
5 that used by the Department through their contractor,
6 ERG, old, non-New Mexico-specific data.

7 The concept of how emissions reductions from
8 LDAR are calculated is really pretty straightforward. I
9 will use a well site as an example.

10 In the first step, a theoretical average well
11 site is devised. Another name for that is a model
12 plant. This average well site model plant has an
13 average number of all the typical equipment that you
14 might find at a well site, the separators, heater
15 treaters, compressors, et cetera.

16 And there are several sources -- data sources
17 available for determining what a model plant should look
18 like. NMOGA has selected the model plant data that is
19 the most representative of operations in New Mexico
20 today.

21 Once the amount of equipment at the model
22 plant is determined, the second step is to apply an
23 average number of components that could be sources for
24 leaks associated with each equipment type, connectors,
25 valves, et cetera. This gives you a total number of all

1 components on the model plant.

2 Third, an average leak rate is applied to each
3 of the components. Now, this average leak rate doesn't
4 mean that every such component leaks that amount. It is
5 a statistical average. For example, if in a study you
6 determine that one in 100 valves is found to have a leak
7 and the leak rate for that one valve is 50 cubic feet
8 per hour, then the average leak rate for all valves
9 would be .5 cubic feet per hour, 50 divided by 100.

10 The data used to determine these statistical
11 averages usually -- excuse me -- generally includes
12 large emitters in their data set. As such, these
13 emission factors are designed to be representative of
14 all leaks, including large emitters.

15 Finally, statistical leak rates per component
16 are summed to get a total statistical leak rate for the
17 well site model plant. But that's whole gas. VOCs make
18 up just part of the gas that might leak. So a factor is
19 used to adjust the total leak rate to yield a VOC leak
20 rate for the well site model plant.

21 NMOGA created three model plants for well
22 sites and a separate one for gathering and boosting
23 stations. To create its model plants, NMOGA used the
24 most recent Greenhouse Gas Reporting Program data from
25 the San Juan Basin and the Permian Basin for its well

1 site model plants and a recent Colorado State
2 University/Department of Energy study for its gathering
3 and boosting model plant.

4 ERG used older and less New Mexico-specific
5 EPA Control Techniques Guideline, or CTG, for their
6 model plants.

7 To arrive at the effectiveness of LDAR to
8 reduce leak rates for any model plant, EPA has
9 established a table of reduction factors for specific
10 LDAR survey frequencies. They actually have two tables,
11 one for each of the main two LDAR techniques. But
12 they're very close.

13 As you will see, increasing the frequency of
14 LDAR has diminishing returns. While the leak rate
15 reduction effectiveness goes up with higher frequencies,
16 there are diminishing returns for increasing the
17 frequency.

18 To put these leak volumes and leak volume
19 reductions on a cost per ton basis, results that I just
20 described must be coupled with the associated cost of
21 LDAR surveys. This yields the cost per ton for such
22 surveys. That is the calculation that is important if
23 you're comparing the choices of applying LDAR or not
24 applying LDAR. That's not what's being considered here.

25 The more germane calculation is the

1 incremental cost of more frequent LDAR and the
2 incremental reduction in VOC emissions associated with
3 that same -- same change in frequency.

4 Excuse me.

5 That is what I will do for you today, and as
6 you will see, the results are extremely high incremental
7 costs for those small reductions in VOC volumes. This
8 extraordinary investment is not prudent given the
9 testimony we've already heard from Mr. McNally that VOC
10 reductions have only a modest impact on ozone
11 concentration in this region. This rule targets ozone
12 formation. The most impactful ozone precursor is NOx,
13 not VOCs in most regions.

14 I hope that by the end of my testimony you
15 will be comfortable with how these calculations are
16 made, you will agree that the data NMOGA used are
17 appropriate, and you will see that the LDAR frequencies
18 NMED is asking for are unreasonably expensive relative
19 to those recommended by NMOGA.

20 I urge you to accept NMOGA's suggested changes
21 that will result in LDAR being performed one to four
22 times -- excuse me -- one to four times per year at
23 every well site and two to four times a year at every
24 gathering and boosting station, every gas processing
25 plant and every transmission compression station.

1 So let's dive into the numbers, shall we?

2 HEARING OFFICER ORTH: I'm sorry to interrupt,
3 Mr. Smitherman.

4 If you would please find a good stopping point
5 in the next couple of minutes, I need to take a little
6 bit of public comment before we proceed with the rest of
7 your testimony.

8 MR. SMITHERMAN: You know, Ms. Orth, your
9 timing is perfect. This is a great stopping point.

10 HEARING OFFICER ORTH: All righty. Well,
11 thank you very much. And thank you for stopping
12 sharing.

13 It is a minute to 5:00. I see our first
14 public commenter on the platform. This is our five
15 o'clock public comment session.

16 I did have these folks reach out to the Board
17 administrator, Brenda McKenna, Dee Dicamillo, David
18 Anderson and April Perkins.

19 If you are on the platform and I did not just
20 call your name, please reach out through the chat.

21 Comment is taken on audio, not video, it's
22 taken under a brief oath and is limited to five minutes.

23 Ms. McKenna, I'm unmuting you.

24 Can you hear me?

25 MS. MC KENNA: Yes.

1 Can you hear me?

2 HEARING OFFICER ORTH: Yes, very clearly.

3 Thank you.

4 If you would please spell your name for the
5 transcript.

6 MS. MC KENNA: Very good. It is Brenda
7 McKenna. Brenda is B-R-E-N-D-A, McKenna is
8 M-C-capital-K-E-N-N-A.

9 HEARING OFFICER ORTH: Thank you.

10 If you would raise your right hand.

11 Do you swear or affirm to tell the truth?

12 MS. MC KENNA: Yes.

13 HEARING OFFICER ORTH: Thank you.

14 BREND A MC KENNA

15 having been first duly sworn or affirmed, gave
16 public comment as follows:

17 PUBLIC COMMENT

18 HEARING OFFICER ORTH: I'll start your five
19 minutes now.

20 MS. MC KENNA: Thank you.

21 Good evening.

22 My name is Brenda McKenna, and I represent
23 District 9 in the New Mexico State Senate, which
24 includes the Counties of Bernalillo and Sandoval
25 Counties.

1 I express my appreciation to the Environmental
2 Improvement Board for organizing this public forum.

3 Why is New Mexico earning an F on smog? We
4 are earning an F by failing our fellow New Mexicans who
5 call the counties of Lea, Eddy and San Juan Counties
6 home. This is because they live where volatile organic
7 compounds that drive the creation of smog are polluting
8 the air moms, dads, grandparents, aunts, uncles,
9 children and infants breathe every day.

10 What does smog do? It damages lungs,
11 exacerbates asthma and emphysema and causes heart
12 disease and cancer. How many of us would choose to live
13 in that kind of environment that would shorten and
14 degrade your life or even more especially that of your
15 kids and grandkids?

16 Governor Lujan Grisham and Secretary Kenney
17 are moving forward to turn the F grade around, and I
18 support them wholeheartedly. In 2019, I accompanied
19 former US Representative Haaland to the Counselor
20 Chapter in the Navajo Nation. We saw and smelled the
21 flaring of methane gas from wells. These wells were in
22 proximity to homes.

23 Imagine the propane flaring one sees when a
24 hot air balloon is being prepared for flight. That is
25 the type of flaring we saw that day, only methane is 84

1 more times worse than carbon dioxide and contributes to
2 25 percent of global warming.

3 The United States is still one of the leading
4 contributors to global warming, and with that methane
5 come the VOCs that create smog, which basically has the
6 effect of a sunburn on our lungs. We must reverse
7 course.

8 I spoke to one of our hosts from that visit in
9 2019 recently. He told me there was no change. If
10 anything, there are more wells. Approximately 4,000
11 more permits have been issued. Not only is the oil and
12 gas industry drilling more there, they are -- they don't
13 seem willing to support even the most basic good
14 neighbor regulations.

15 My friend hosted another group recently to
16 Counselor. This time it was a group of high school
17 students. The students drew the flaring they saw and
18 wrote down what they were witnessing in their journals.
19 The field trip was shortened because my friend did not
20 want them to develop headaches due to the methane and
21 co-pollutants all around them.

22 I had to ask myself if a visiting class of
23 kids could get a headache from breathing this air, what
24 does it mean for people who live close to these
25 facilities? For that reason, I'd like to see the EIB

1 build on these strong proposed rules in three ways.

2 One, protect those living closest to the
3 development by requiring more frequent inspections to
4 find and fix leaks.

5 Two, ensure strong requirements for operators
6 to control pollution during the completion of an oil or
7 gas well, as well as when they redevelop an existing
8 well.

9 Three, strengthen requirements to cut
10 pollution from pneumatic controllers that are used in
11 oil and gas production. The devices are the second
12 largest source of oil and gas methane emissions in New
13 Mexico. NMED should require companies to inspect these
14 for leaks and accelerate the timeline to retrofit
15 equipment with zero bleed or zero emission controllers.

16 Join me and help the Gov -- to help the
17 Governor, Secretary Kenney and fellow advocates to help
18 ensure we see the Counties of Lea, Eddy and San Juan
19 Counties earn an A for cleanliness of their air.

20 Thank you very much.

21 HEARING OFFICER ORTH: Thank you very much,
22 Ms. McKenna.

23 Our other three commenters are on the
24 telephone, as I understand it.

25 Caller 25, I've unmuted you.

1 Who is this, please?

2 Caller 25? Can you hear me?

3 Okay. I'm going to move to Caller 26.

4 Caller 26, can you hear me?

5 MS. DICAMILLO: Hello?

6 HEARING OFFICER ORTH: Oh, yes. Hello.

7 Tell me who this is.

8 MS. DICAMILLO: Yeah. This is Dee Dicamillo.

9 I don't know what number I am.

10 HEARING OFFICER ORTH: Okay. No. That's
11 great.

12 Would you spell your name, please.

13 MS. DICAMILLO: Yes, ma'am. D-E-E, and the
14 last name is D-I-C-A-M-I-L-L-O.

15 HEARING OFFICER ORTH: Thank you.

16 And if you would raise your right hand.

17 Do you swear or affirm to tell the truth?

18 MS. DICAMILLO: Yes, I do.

19 HEARING OFFICER ORTH: Thank you.

20 DEE DICAMILLO

21 having been first duly sworn or affirmed, gave
22 public comment as follows:

23 PUBLIC COMMENT

24 HEARING OFFICER ORTH: I'm going to start your
25 five minutes now.

1 MS. DICAMILLO: Thank you.

2 I am not a politician, and I am not as erudite
3 as Ms. McKenna in -- in relation to the -- to the
4 specifics of what we're talking about.

5 I have been an art teacher and an art history
6 teacher for 35 years and -- at UNM through Taos Academy
7 and Taos High School for many years. And I saw many
8 children when I taught elementary and high school who
9 had asthma, who had different forms of lung problems.
10 My stepson is a doctor who is in -- at Albuquerque in
11 Presbyterian Hospital, and he has seen the same kinds of
12 increases in asthma in children.

13 So basically, what I want to say is I think
14 it's unconscionable that 130,000 New Mexico's -- New
15 Mexicans live within a half mile of oil and gas
16 development. And as we can see from Ms. McKenna's
17 testimony, the methane gas produces smog that is -- is
18 absolutely horrid on the lungs and the health of
19 children.

20 It is a shame that the oil and gas operations
21 that release one million metric tons of climate-warming
22 methane each year will inevitably increase by 70 percent
23 the droughts that have been happening in the last
24 several years.

25 And we need -- you know, given -- given what

1 New Mexico -- in terms of our ecosystems, given who we
2 are and what we are, the high desert, with large skies,
3 with big skies and -- and wind potential and solar
4 potential, we need to be leaders in solar and wind
5 energy, in clean energy. We need to be leaders, and we
6 need to emphasize ecotourism through being -- through
7 having a leadership in solar and wind power.

8 It is unconscionable and unbelievable that a
9 state so beautiful, a state with so much tourism is
10 degrading the potential for good health in our children
11 and degrading the potential for ecotourism in this
12 state.

13 And anyway, I want to say that I love New
14 Mexico, and we need to love it to the point where we
15 protect it, we protect our air, our water, our skies,
16 our children and our adults.

17 So thank you.

18 HEARING OFFICER ORTH: Thank you,
19 Ms. Dicamillo.

20 I'm going to unmute Caller 27.

21 Caller 27, can you hear me?

22 MR. ANDERSON: Am I 27?

23 HEARING OFFICER ORTH: Yes, you are.

24 Who is this?

25 MR. ANDERSON: Okay. This is David Anderson.

1 I -- I'm a Southern New Mexico --

2 HEARING OFFICER ORTH: Wait. Hold on. Hold
3 on.

4 MR. ANDERSON: Okay.

5 HEARING OFFICER ORTH: I need you to spell
6 your name, please.

7 MR. ANDERSON: I'm sorry.

8 Dave Anderson, A-N-D-E-R-S-O-N.

9 HEARING OFFICER ORTH: Thank you.

10 And if you would raise your right hand.

11 Do you swear or affirm to tell the truth?

12 MR. ANDERSON: I do.

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

15 DAVE ANDERSON

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

18 PUBLIC COMMENT

19 MR. ANDERSON: I live in Southern New Mexico.

20 I've been here -- oh, gosh. I came here in '75.

21 I've been interested in solar for a long time.

22 Actually, I use solar on my house now. I've converted
23 completely to solar. I do have a little bit of propane
24 occasionally as backup if necessary.

25 But I -- my point is we live in probably one

1 of the best states, like the last person said, in the
2 United States for solar. Arizona, Texas, New Mexico,
3 Colorado, we should be developing solar and wind, I
4 think, for the whole nation. And I also feel like that
5 if we put solar on every house and we -- and we push
6 that, we will get these emissions down fairly quick.

7 There has to be a way -- there has to be some
8 sort of catalyst, though, to get people to want to do
9 this. Now, I -- I chose to do this because -- actually,
10 I lived in Canada for about six years, and -- and my
11 stepson worked in the oil sand. It was probably the
12 worst place on the planet to live. He would come
13 back -- every time he would go there -- he was an
14 electrician -- he would come back, he'd have welts all
15 over his body. And these welts would stay on his skin
16 for up to two weeks before they would start to
17 dissipate.

18 This has to -- if anybody is exposed to these
19 type of toxins, and I think we are in New Mexico, if you
20 look at Artesia and some of the areas in Southern New
21 Mexico, Carlsbad, da-da-da, you're seeing this in the
22 air. And I went to Midland about two years ago, and I
23 was like, boy, the air is just -- it's like gray all the
24 time. Didn't used to be like that.

25 So it is getting worse. We do need to jump on

1 this right away. I do think we're -- we're in a bad
2 situation right now. I know the United States is one of
3 the worst, but we've got other big company -- or
4 countries that are also really -- really bad. I don't
5 know what China is right now. I don't know if they're
6 number one or number two in the nation -- or in the
7 world as far as emissions, but I know they are pushing
8 solar big time now, solar and wind.

9 I think we need to -- like -- like Caller 26
10 said, we need to be the leaders. We -- we should be the
11 leaders. We can start here in New Mexico and expand out
12 if that's what it takes. I know we're up against a lot
13 of opposition with oil and gas, but that's actually --
14 you know, that's going to -- that's going to go down and
15 down more and more, because oil and gas, as we know, is
16 a fossil fuel, we're not going to have it forever, and
17 it is very -- it's such a pollutant.

18 I believe BP, one of the largest producers of
19 oil and gas in the world, is also one of the -- has
20 started using solar and is one of the largest producers
21 in solar energy, as well. I could be wrong on that, and
22 you can correct me on that. But -- so somebody is
23 trying.

24 We just need to get these big oil companies to
25 start switching over, and I think with these bills being

1 passed, that's the best way to do it. I just hope it
2 passes. And I'm not sure we're going to get all of it
3 done at one time, and maybe we ought to rethink this if
4 we don't get it done at one time, maybe we should
5 rethink it and try to do it in chunks, so we get it all
6 done. But we definitely have to do it.

7 And I am very concerned about our kids. I'm
8 very concerned about my grandkids. I've got four
9 granddaughters that live in Denver, Colorado. I'm very
10 concerned about them, very concerned about their
11 environment as they grow older. I'm very concerned
12 about the animals and -- and the rest of the humans.

13 I -- my next step is an electric car. My
14 house is electrified. I'm all electric now and all
15 solar, and now I'm going towards a car. And I think
16 that's what we need to do, is start little steps, start
17 moving that direction.

18 I think that's all my time.

19 HEARING OFFICER ORTH: All right. Thank you
20 very much, Mr. Anderson.

21 All right. Let me go back to Caller 25.

22 Is this you, Ms. Perkins?

23 Caller 25.

24 All right. That is not working.

25 All right. I believe, then, finally, we go to

1 Sanders Moore. Here we go.

2 I've unmuted you.

3 Can you hear me?

4 MS. MOORE: I can.

5 Can you hear me now?

6 HEARING OFFICER ORTH: Yes. Thank you.

7 If you would please spell your name for the
8 transcript.

9 MS. MOORE: Yes. My name is Sanders Moore,
10 S-A-N-D-E-R-S M-O-O-R-E.

11 And I am just going to make a statement --

12 HEARING OFFICER ORTH: Hold on.

13 MS. MOORE: -- on behalf of Senator Mimi
14 Stewart, which is M-I-M-I S-T-E-W-A-R-T.

15 HEARING OFFICER ORTH: All right. If you
16 would raise your right hand.

17 Do you swear or affirm to tell the truth?

18 MS. MOORE: Yes.

19 HEARING OFFICER ORTH: Thank you.

20 SANDERS MOORE

21 having been first duly sworn or affirmed, gave
22 public comment as follows:

23 PUBLIC COMMENT

24 HEARING OFFICER ORTH: I'll start your five
25 minutes now.

1 MS. MOORE: Thank you.

2 Good afternoon, Board Members.

3 I am Sanders Moore, Senate President Pro
4 Tempore, Mimi Stewart's Chief of Staff. She sends her
5 regrets that she's unable to join you today herself.
6 And I will read a statement on her behalf.

7 Thank you, Board Members, for your time and
8 attention to this serious and important issue. Ozone
9 has a huge impact on our climate and our health and is a
10 major pollutant created by oil and gas operations,
11 putting everyone's health at risk, especially children,
12 elderly and frontline communities, which are
13 disproportionately rural, low-income and communities of
14 color.

15 Governor Lujan Grisham has been a leader in
16 addressing climate change and pollution in New Mexico.
17 She signed an executive order during her first month in
18 office laying out her climate priorities in action
19 during her tenure, including addressing the very high
20 levels of methane we emit in New Mexico, of which ozone
21 is a by-product.

22 I am pleased to see these rules moving
23 forward. New Mexico should be at the forefront of
24 addressing climate change and by extension mitigating
25 the adverse health impacts caused by ozone pollution.

1 Thank you for the strong draft rule that you
2 issued this spring. I encourage the EIB to support
3 three important improvements for the final rule.

4 First, to require more frequent inspections to
5 find and fix leaks at well sites close to schools and
6 homes.

7 Second, require companies to control pollution
8 during well completions.

9 And finally, to strengthen the requirements to
10 reduce pollution from pneumatic controllers.

11 Thank you for your time and consideration.

12 And then if it's all right, I'd like to just
13 make a couple comments myself, speaking on behalf of
14 myself as Sanders Moore.

15 I'm a mother of a toddler, and I am personally
16 very concerned about the fate of our planet and our
17 pollution. I watch the air quality on an app on my
18 phone fairly regularly to determine whether I should
19 take my child to the playground, and I don't take her
20 outside when the ozone and other pollutants are high
21 because I don't want it to cause long-term health
22 impacts for my daughter.

23 Living in Albuquerque, I have the luxury to
24 check that and to stay inside when it is unsafe for her
25 little lungs, but people living in frontline communities

1 do not have that luxury. They are breathing the bad air
2 quality regularly. And these communities have paid the
3 price with their health for decades. We need to protect
4 these families and ensure that all -- health for all New
5 Mexicans and globally is protected from ozone pollution.

6 So I also encourage you to make those
7 important changes that the senator is also encouraging.

8 Thank you very much.

9 HEARING OFFICER ORTH: Thank you very much,
10 Ms. Moore.

11 All right. We have reached the end of the
12 public comment session for this evening. We will return
13 to the technical case.

14 If we could get Mr. Smitherman back.

15 Mr. Hiser. Let's see here.

16 MR. HISER: I see Mr. Smitherman, as well.

17 HEARING OFFICER ORTH: All right. Great.
18 Please go ahead.

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JOHN R. SMITHERMAN

(Relating to Topic Order 27)

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

DIRECT EXAMINATION (Continued)

BY MR. HISER:

Q. Mr. Smitherman, please proceed with your
surrebuttal and -- but when we hit slide 10, make sure
that you don't address that, let me speak to that.

A. Be happy to do so.

Am I sharing my slide properly?

Q. It is in still what is normal view instead of
presentation view.

A. You know, I think I'm going to have to leave
it there.

Q. Okay.

A. It does some funny things when I don't.

Q. And you're --

THE REPORTER: Excuse me.

Q. (BY MR. HISER) -- also getting faint again
for the court reporter. So if maybe you could move
forward toward your speaker.

A. Certainly.

Let's go ahead and start, shall we?

Part of my surrebuttal is going to be

1 responding to some comments and criticisms that NMED
2 made. They believe that NMOGA's analysis lacks
3 specificity. Also, NMED has challenged some of the
4 bases of our analysis, and I will try to address those
5 for the Board's edification. And I'm going to start
6 with well sites, if I could, please.

7 We -- we believe that ERG's analysis is
8 flawed. Emissions reductions in their analysis are
9 overestimated, mostly because their model plant is
10 flawed. I've talked a little bit about that in my
11 introduction. The major equipment counts are high,
12 hence the component counts are high, hence the emissions
13 are high.

14 Q. Okay. Mr. Smitherman?

15 A. Yes.

16 Q. You're fading out on us.

17 A. Oops. I'm sorry.

18 Maybe I can turn my video off? Think that
19 would help?

20 Q. That might.

21 A. Let me stop sharing just for a moment and see
22 if I can figure this out.

23 Is that any better?

24 Q. A little bit. You're just going to have to
25 make sure you speak up, and we may ask you periodically

1 to speak up again.

2 A. Okay.

3 ERG's analysis is flawed for a couple of
4 reasons. The emissions reductions are overestimated,
5 mostly because of the model plant flaws that I've just
6 discussed. The leak frequency is also flawed. And the
7 costs are underestimated. So the combination of those
8 two results in results that are not reliable.

9 Let's talk about the emissions reductions.
10 Specific critique was that NMED cannot evaluate the
11 validity or representativeness of the alternate model
12 plants mentioned by NMOGA because NMOGA does not
13 document in its testimony or exhibits the actual model
14 plants they created and on which they estimated new
15 emission reductions and cost effectiveness numbers.

16 Our response, and again I'm -- pardon me for
17 having to read this, but the comments were very
18 specific, and I want to make sure that I've gotten them
19 correct.

20 NMOGA did provide the Greenhouse Gas Reporting
21 Program file, Exhibit 27, that was used to construct the
22 more current and representative model plants. The data
23 is also publicly available. In my surrebuttal I will --
24 NMOGA will provide additional information on those model
25 plants, although I think we'll skip that.

1 What is a model plant? We've talked about
2 this in my introduction. It's a statistically average
3 facility, average number of equipment counts, average
4 number of components per equipment, and results in an
5 average number of components per site.

6 ERG's model plant used 1996 data from the CTG.
7 Some of that data was not specific to New Mexico. In
8 fact, some of it was not even specific to upstream oil
9 and gas sector. NMOGA's model plant used recent 2019
10 greenhouse gas reporting data specific to the San Juan
11 and Permian Basins.

12 Q. All right. Mr. Smitherman, this is slide 10.

13 So, Madam Hearing Officer, at this point, as
14 discussed, NMOGA would be making a proffer.

15 And so I would state that if Mr. Smitherman
16 were to testify he would state that this shows how NMOGA
17 developed the number of model plant equipment counts
18 from the greenhouse gas data, by dividing that by the
19 number of wells as explained in his testimony, then used
20 the average component count per equipment, which is the
21 same as the ERG data -- that's that middle section -- to
22 calculate a new average component count per model plant,
23 which you see on the right-hand side. And that would
24 then be used in the basis for calculating the emissions
25 changes from the leak reduction frequencies.

1 HEARING OFFICER ORTH: Thank you.

2 MR. HISER: Okay.

3 Mr. Smitherman, you can advance to slide
4 number 11, which is also one of the ones that we are
5 doing a proffer on.

6 So this is the example of if you apply that
7 calculation to the well site side. This -- unlike the
8 first slide, slide 10, which was gas facilities, this
9 one presents the same information -- I'm sorry.

10 John, you're moving all around on me.

11 MR. SMITHERMAN: Sorry.

12 MR. HISER: We're now back on slide 11.

13 So this presents the information for oil
14 wells, and it had it divided into the two categories
15 that were used of less than 300 gas-to-oil ratio and
16 over 300 gas-to-oil ratio.

17 Once again he would have testified that they
18 took the number from the Greenhouse Gas Reporting
19 Program, divided that by the number of wells, divided by
20 number 2, to come up with the site, use the ERG data
21 from the CTG for the average component count, to then
22 calculate a new average component count for the model
23 plant site.

24 HEARING OFFICER ORTH: Okay. Thank you.

25 MR. HISER: That completes the proffer on this

1 slide, Madam Hearing Officer.

2 Q. Now, go ahead, John, to slide number 12, and I
3 think you may resume on this one.

4 A. Thank you, sir.

5 This is the ERG model plant that they used as
6 the basis of their calculation.

7 As you can see here, there's a certain number
8 of equipment counts for each of the different equipment
9 types. They have components -- average numbers of
10 components that are associated with each one of those.
11 Here, for example, 21.6 valves associated with a
12 separator. And you multiply those two together to get
13 the average component count for each of those equipment
14 types, for each of those component types. And you get a
15 total of all of the components that are at that site
16 that have the potential to leak.

17 Q. And so if I could interrupt you there.

18 So basically, you take the second column, the
19 model plant equipment count, and then you multiply that
20 in this case by the third column, the average valves,
21 and then you go to the component count per model plant,
22 and that 19 is the 2 times the 9.5; is that correct?

23 A. That's correct.

24 Q. And then 2 times 37 to get the 74, and that's
25 how you're constructing this table.

1 A. That's correct. And the result is a total
2 number of components that you see here, and, you know,
3 our numbers would have been lower than that because of
4 the most recent greenhouse gas reporting data equipment
5 counts.

6 We also have ERG's model plant for oil well
7 sites, both sites with a lower GOR than 300 and a GOR
8 equal to or greater than 300. Same process, equipment
9 counts here, the number of components per equipment --
10 or -- excuse me -- the average number of those equipment
11 types, components total here. So again you end up with
12 a total number of components at the site -- at an oil
13 well site greater than and equal 300. Our numbers would
14 have been similarly constructed, but would have resulted
15 in lower numbers.

16 Q. And, John, before you move on from this slide,
17 could you remind the Board what GOR means and why that's
18 important?

19 A. Oh, thank you. Gas-oil ratio. It really
20 distinguishes between oil wells that don't produce a lot
21 of associated gas and oil wells that produce quite a bit
22 of associated gas. Many of your -- I want to call them
23 older water flood, older conventional oil wells produced
24 little gas as associated with each barrel of oil, and
25 the number is 300 standard cubic feet of gas per barrel

1 of oil.

2 Q. Thank you for that --

3 A. These wells in unconventional tend to be
4 higher than 300 GOR.

5 Q. Sorry. I didn't mean to speak over you.

6 Thank you for that clarification of the term
7 "GOR."

8 Please proceed.

9 A. As I mentioned in my opening, there is a table
10 that's been established by the EPA that, in essence,
11 gives you the amount of emissions reduction that you're
12 going to get with differing -- differing LDAR
13 frequencies. If you do annual LDAR surveys, you will
14 get a 40 percent reduction in your model plant's
15 emission. It's a straight calculation. And if you did
16 semiannual, you'll get 60 percent reduction, quarterly
17 80 percent, monthly 90 percent.

18 There are some slight differences between
19 whether you use an OGI or Method 21, but, in essence,
20 this has been simplified to give you the numbers that we
21 used in our calculations.

22 Q. And, John, before you move from that slide,
23 can you go back for a minute?

24 Was one of the points that was important to
25 NMOGA was that there was a large gain from starting LDAR

1 at all, but that the gain seems to go down as we
2 increase the frequency?

3 A. It does. In fact, as you can see
4 specifically, the gains between quarterly and monthly
5 are relatively small. When you go from annual, you
6 know, every 12 months, to every six months, then you get
7 a 20 percent increase. You go from six months to four
8 months, you get 20 percent reduction, additional
9 20 percent reduction. So you can see that there's a
10 diminishing return.

11 Q. Thank you.

12 A. So when you tabulate the emission reductions
13 at these model plants, you get these results. Here is
14 the CTG basis that ERG came up with for their gas well
15 sites. They perform -- if you perform annual LDAR, you
16 get a .61 ton per year VOC reduction on a gas well site.
17 If you perform semiannual, you'll get a .917, and if you
18 do quarterly, a 1.222 ton per year VOC reduction. Using
19 our model plant, those reductions -- since the emissions
20 are smaller, the reductions are also smaller. It runs
21 from .509 tons per year down to 1.018 tons per year.

22 And I've got the little tabulation to
23 illustrate the percentage reduction between ERG's data
24 and NMOGA's data. For gas well sites it's a
25 16.7 percent reduction, for low GOR sites it's a

1 27.9 percent reduction, and for those oil well sites
2 with equal to or greater than 300 GOR almost 60 percent
3 reduction. I gave you a sample calculation here. I
4 won't go through that. It's pretty straightforward.

5 Q. And just as a reminder, John, is that due
6 principally to the difference in the component count
7 between the CTG and the greenhouse gas reporting?

8 A. That's actually the only difference.

9 So once you then couple that with costs to put
10 it on a cost per ton basis -- and by the way, we used
11 the same cost basis that the Department used, the CTG
12 basis, and applied it to our model plant emissions
13 reduction. So the only difference here is the emissions
14 reduction that comes from the model plant equipment
15 counts.

16 As you can see, the lower emission impact
17 yields higher per ton costs. And those get higher and
18 higher depending on whether you're in a gas well site or
19 one of the lower or higher GOR oil well sites.

20 Again looking at the percentage change, gas
21 well sites are almost 20 percent higher, low GOR oil
22 sites are almost 40 percent higher, and high GOR well
23 sites are almost 150 percent higher. And again a sample
24 calculation for your edification.

25 Now, we believe that the leak frequency that

1 ERG used -- and we actually used the same numbers -- has
2 been overestimated. So we looked into that as a
3 sensitivity to at least have the Board understand that
4 had they used -- had we used a higher leak -- or lower
5 leak frequency our numbers would have been, in essence,
6 worse. They would have been higher. So we're being
7 conservative by using CTG leak frequency data when
8 there's data that indicates that we could have used
9 probably better data.

10 The ERG EPA data found that sites start off
11 with about four leaks per site initially, and in all of
12 these studies, these leak frequencies tend to go down
13 over time, as LDAR is -- continues to be instigated.

14 API study based on two years of quarterly LDAR
15 at over 6,000 sites -- or -- excuse me -- surveys across
16 almost 3,500 sites found that they start off with less
17 than two leaks per site. It was about 1.6 actually.
18 And it dropped quickly to less than one leak per site
19 over time. So we believe that ERG data overstates the
20 leak rate, therefore overstates the emissions. We did
21 this as a sensitivity. We did not include this in our
22 calculations.

23 I'm going to pause and go to a specific NMED
24 rebuttal. The leak frequencies API generated from the
25 Quad 0a report is not representative of New Mexico since

1 the facilities being surveyed are the new and modified
2 facilities subject to the LDAR requirements in Quad 0a,
3 and they're not representative of the older facilities
4 and sites in New Mexico.

5 And while we agree that the facilities in
6 API's frequency analysis are newer than many of the New
7 Mexico facilities, they are no less representative than
8 leak frequencies developed decades ago that were based
9 on even older data and included industries besides oil
10 and gas segments.

11 So again we looked at the leak frequencies, we
12 recognize that there's a real possibility that the ERG
13 leak frequencies that they used are too high, and we
14 used are too high, but that basically says that our
15 numbers are conservative.

16 Again a specific comment, NMOGA does not
17 provide a detailed comparison of the results of the
18 study to the frequency or emission rates that were the
19 basis of the 2016 CTG estimates of cost effectiveness.

20 We did provide study papers and supplemental
21 information in our Exhibits 5 and 14 that compare the
22 various other leak frequencies and emission rates that
23 are discussed. Some of those are the 2016 leak -- CTG
24 leak frequency of about 1.18, API at .42 of components
25 leaking. The API's leak study rates per leaking

1 component are higher overall than those underpinning the
2 2016 CTG.

3 I'm going to move on.

4 Q. Okay.

5 A. Costs are underestimated at well sites, also.
6 Again as a sensitivity, NMOGA looked into the validity
7 of the costs that ERG used, and we used, to underpin
8 their costs per ton in their emission reduction costs.
9 We again used the CT -- same CTG data that they did, but
10 we did this as a sensitivity.

11 And API commented, as you've heard earlier
12 from other witnesses, on the 2016 CTG and believed that
13 the costs were underestimated for the conducting of the
14 leak surveys, completing the repairs, maintaining
15 records. Also, they completely omitted costs for
16 personnel training, travel time and costs and equipment
17 maintenance.

18 So we believe that these costs that ERG used
19 are too low. We used them also, but we're also pointing
20 out that had we used these higher cost numbers, then the
21 resulting costs per ton would have been much higher. It
22 again points to the fact that our numbers are
23 conservative.

24 Again a specific comment, EPA fully responded
25 to API's comments in their responses to comments and it

1 is beyond the scope of this rulemaking for NMED to
2 revisit the issue. You heard that earlier today.

3 NMOGA included the API costs as a sensitivity
4 and did not use it in our actual calculations. We
5 included it to illustrate that the impacts of costs per
6 LDAR survey and the costs per ton of reductions are --
7 are low, and costs do matter.

8 NMOGA does believe that costs are
9 underestimated in this rulemaking and that the agency
10 undertaking the rulemaking has the obligation to gather
11 and use the most current and accurate information
12 available in their analysis, costs and other data.
13 NMOGA will be -- NMOGA would be happy to assist NMED in
14 gathering current cost information from New Mexico
15 operators which would be representative of the actual
16 costs of operations and challenges.

17 Let's move to gathering and boosting stations.

18 Again emissions are overestimated at gathering
19 and boosting stations, using their model plant. It's
20 again based on 1996 EPA data, it's an EPA GRI study, and
21 it's not representative of current populations of
22 gathering and boosting stations in New Mexico.

23 NMOGA's model plant was based on a Colorado
24 State University/Department of Energy 2019 major study
25 that yielded fewer equipment counts, fewer components

1 and lower potential leak emissions than ERG used.

2 And now, Mr. Hiser?

3 MR. HISER: So, Madam Hearing Officer, this is
4 another proffer slide.

5 If Mr. Smitherman were to testify on this
6 slide, he would explain how NMOGA looked at the CSU
7 report and from certain tables in that report selected
8 the number of pieces of equipment in the model plant --
9 you see sort of in the second column -- and then from
10 different tables collected the average component count
11 per equipment, and then multiplied those to calculate
12 the average component count for the model plant. Very
13 similar to what we saw for the well sites in the earlier
14 stages.

15 And that would complete NMOGA's proffer on
16 this point.

17 HEARING OFFICER ORTH: Thank you.

18 MR. SMITHERMAN: So my next slide is the model
19 plant that ERG used on gathering and boosting stations.
20 Once again similar type of structure where you've got
21 your equipment counts, you've got your average component
22 per equipment, which yields the average component count
23 per model plant for each of these different component
24 types. And you sum them at the bottom.

25 Our numbers would have been similar in their

1 structure, but the numbers would have been lower than
2 these.

3 Similarly, we have used their model plant and
4 our model plant to calculate estimated emissions
5 reductions.

6 Now, here is the slide, Mr. Hiser, that has a
7 small error in it, and it's a consistent error, and we
8 had a -- just basically used a wrong cell reference in a
9 spreadsheet. And basically, every one of these eight
10 numbers here are 6.5 percent too -- too low. The
11 numbers that we are showing you are -- let me get this
12 right -- lower than the numbers that we had in our
13 original testimony by 6.5 --

14 Q. (BY MR. HISER) These numbers have come down
15 by 6.5 percent from what was presented in your original
16 testimony; is that correct?

17 A. That's correct. That is correct.

18 So the numbers here, as you can see, the tons
19 per year reduced are quite different between ERG
20 estimates and the Permian -- and the NMOGA estimates.

21 Q. So, Mr. Smitherman, can you explain why in the
22 previous times that we were talking about this we didn't
23 have a differentiation between basins, and now suddenly
24 when we get to gathering and boosting there is a
25 differentiation?

1 A. Thank you. That's an excellent question.

2 The reason is we have data from the San Juan
3 Basin -- from the San Juan Basin Greenhouse Gas
4 Reporting Program, and we have specific data from the
5 Permian Basin from that same source. ERG only has the
6 CTG information which does not differentiate between
7 those two basins.

8 So again showing you the numbers, San Juan
9 Basin 82 percent lower, Permian sites 55.6 percent
10 lower. Again another sample calculation for your
11 edification.

12 Once again a specific comment, NMOGA fails to
13 note the findings of the study that, quote, unquote, the
14 study indicates that study emission factors either agree
15 with or are larger than current Greenhouse Gas Reporting
16 Program emission factors for the Western US, unquote.
17 The NMED analysis also does not take into account the
18 estimated leak rates in standard cubic feet per hour
19 including the presence of large emitters relative to
20 those that were the basis of the 2016 CTG estimates.

21 Q. Mr. Smitherman, let me stop you there.

22 In the second sentence you said the NMED
23 analysis.

24 Did you mean the NMOGA analysis?

25 A. Excuse me. I misspoke. The NMOGA analysis.

1 This is a comment from NMED, commenting on NMOGA's
2 analysis. Thank you.

3 Our response is the NMOGA used the emission
4 factors -- you'll see them in Table 4 of our
5 Exhibit 28 -- developed by the study authors to
6 calculate potential equipment leak emissions and the
7 frequency dependent reduction percentages used by
8 ERG/NMED in our analysis. Since NMOGA used emissions
9 factors developed from the study, that's from the
10 Colorado State University/DOE study, measurements and
11 these emission factors incorporate the study
12 measurements, including large emitters, the division's
13 comments are simply not correct.

14 Again a specific criticism, NMOGA does not
15 provide any details regarding how the results of the
16 second paper -- that's the Colorado State/DOE study --
17 were used to adjust the VOC reduction estimates from
18 those in the 2016 CTG to those in NMOGA's testimony or
19 how they were used to adjust the cost per ton of VOC
20 reduced.

21 NMOGA did supply the Colorado State
22 University/DOE study, part of our NMOGA Exhibits 28 and
23 7, and we responded to those materials -- excuse me --
24 NMED responded to those materials, and clearly they had
25 access.

1 Some of the details of how NMOGA used the
2 Colorado State University/Department of Energy study to
3 construct a more current model plant for gathering and
4 boosting facilities and then to calculate potential
5 emissions, frequency dependent reductions and costs per
6 ton of reductions.

7 One, NMOGA used the major equipment per
8 gathering and boosting station that you'll find in Table
9 6, NMOGA Exhibit 28, to establish the count of major
10 equipment types per station.

11 Two, NMOGA used the component counts per piece
12 of major equipment -- those are Tables S3 through 30
13 through S3 -- excuse me -- S3-30 through S3-35 in the
14 Colorado State/Department of Energy gathering and
15 boosting station study supplemental information, Volume
16 3, which you find in our NMOGA Exhibit 7 -- multiplied
17 by the count of major equipment to calculate the number
18 of components per station.

19 Continuing, that same comment, NMOGA then
20 multiplied the components count by the study-derived
21 emission factors, which you'll find in Table 4 in
22 NMOGA's Exhibit 28, to calculate the standard cubic feet
23 of emissions per model study.

24 Then NMOGA divided the emissions by 1,000 to
25 convert them to Mcf, and then multiplied the results by

1 the pound of VOCs per Mcf, as I did -- as I explained
2 earlier, you basically take whole gas and reduce it to
3 the amount of VOCs specifically in the San Juan Basin
4 and the Permian basins respectively, to arrive at the
5 mass of emissions -- VOC emissions per station.

6 Note that the result is based on actual New
7 Mexico data and is certainly more representative than
8 the outdated and nonrepresentative information used by
9 ERG.

10 The mass of emissions per station, which
11 represents potential equipment leak emissions, was then
12 multiplied by the same reduction factors that ERG used
13 for the different LDAR survey frequencies to calculate
14 the reductions per station. And as I've already
15 mentioned, 40 percent, 60 percent and 80 percent
16 reductions, depending on the frequency.

17 We did create a 90 percent reduction monthly
18 surveys. It's a little wonky. I won't go through the
19 details of that.

20 NMOGA then used the ERG and the NMED costs for
21 a different leak survey -- excuse me -- for the
22 different leak survey frequencies to calculate the per
23 ton cost of reductions.

24 A different criticism or comment from NMED,
25 given the uncertainty regarding the costs used by ERG

1 and NMED in their analysis of the rule impacts, NMOGA
2 does not think considering the minimally lower costs
3 associated with less components and less leaks is
4 particularly relevant to the cost per ton of reduction.

5 Our response, as the division knows, major
6 parts of the cost per survey are buying the camera and
7 support equipment, training personnel, traveling to and
8 from the sites -- excuse me -- especially remote sites
9 in New Mexico, firing up and checking the equipment,
10 conducting the survey itself, documenting the survey
11 results in a database, creating work orders for repairs,
12 obtaining parts, planning for personnel for repairs,
13 traveling to and from sites for repairs, making the
14 repairs, and documenting the repairs in a database.
15 There's lots and lots of steps that are associated with
16 that.

17 So only part of the costs per survey that vary
18 with the number of components per site in the -- is in
19 the survey time, and cost per survey is not particularly
20 sensitive to the difference in survey time given the
21 other cost drivers and the fact that gathering and
22 boosting station is still complex and takes about the
23 same time to survey.

24 The only parts of the cost per survey that
25 vary with the number of leaks are obtaining the parts

1 for repair and making the actual repairs. Although
2 fewer leaks will require fewer repairs, the cost
3 differential is not that great. Also, as the division
4 knows, as the frequency of survey increases, the number
5 of leaks per survey goes down, and the proportion of the
6 survey cost attributable to repairs also decreases to a
7 point that the differential costs for fixing one leak
8 versus three is really not that relevant.

9 Q. And so as part of the comment here, John,
10 really by the time you get to a gathering and boosting
11 station, they are much more complex than a typical well
12 site would be, so there's more components, and you're
13 going to have to spend a certain amount of time at that
14 facility sort of regardless?

15 A. Exactly. And the cost driver really is the
16 survey itself. The repairs are a small part of the cost
17 that is included in our cost estimate, but it's mostly
18 the cost of the survey.

19 So when you take those costs and you apply
20 them to the VOC reductions, you get this table here.
21 Again we had a small change, 6.5 percent change in the
22 numbers that cascade to these, as well. So these are
23 the corrected numbers. And again you have San Juan base
24 numbers and Permian Basin base numbers relative to the
25 one single number set for New Mexico from the CTG.

1 Once again I show you that the San Juan
2 sites -- excuse me -- San Juan Basin sites are
3 460 percent higher, Permian Basin sites 125 percent
4 higher. So the ERG's ton -- dollar per ton estimates
5 understate the New Mexico actuals. And again once more
6 a sample calculation.

7 Q. So, John, maybe you could go back for a second
8 to your prior slide.

9 Does this slide sort of show for you one of
10 New Mexico -- NMOGA's concerns about moving to the
11 monthly frequency compared to the other frequencies that
12 are under discussion?

13 A. It does. As you can see, the costs per ton as
14 frequency goes up do go up, but it's a big difference
15 going from quarterly to monthly. And that happens for
16 whatever reason that you're changing that frequency from
17 semiannual or quarterly to monthly. The fact that
18 you're going from quarterly four times a year to monthly
19 12 times a year is a big, big jump, and it causes the
20 cost per ton to go up markedly.

21 Q. Okay. Thank you, John.

22 Please continue.

23 A. So as I said in my opening, there's lots of
24 numbers here that talk about the actual costs per ton
25 for performing LDAR. We've gone through a lot of those

1 so far. The main -- the most germane calculation is
2 looking at what's the incremental benefit and what's the
3 incremental cost to go from one frequency to another.

4 As I said at the outset, NMOGA supports LDAR,
5 but at frequencies that are reasonable. Additional LDAR
6 survey costs are basically scaleable. I just mentioned
7 that, that most of the costs are basically conducting
8 the survey itself. So it's not the repair costs that
9 are -- that are driving the total costs. It's simply
10 performing the surveys.

11 More frequent LDAR surveys also result in
12 lower per survey emission reduction. That's that
13 diminishing returns I mentioned before. You combine
14 those two concepts, and incremental dollar per ton moves
15 to unreasonable levels.

16 Here's a comparison of the proposals now.
17 NMOGA is recommending that for well sites annual LDAR
18 for every site that has a PTE less than 10 tons per
19 year, semiannual equal to 10, less than 25 tons per
20 year, and quarterly for any sites equal to 25 tons per
21 year or more. NMED has now come back to less than two
22 tons a year for annual, between two and less than five
23 for semiannual, and greater than five -- five or
24 greater, I should say, to be quarterly.

25 So how do you -- how do you do an incremental

1 analysis?

2 More frequent LDAR surveys cost more money, as
3 I said, mostly scaleable, slightly less than scaleable
4 due to fewer leaks discovered in repair. Emission
5 reductions are a little lower with more frequent LDARs.
6 So higher costs for lower emissions reduction yields a
7 cost-to-benefit ratio that's higher, some of them very
8 high.

9 Let's take a look on well sites. This is
10 using the ERG costs and the NMOGA well plant -- pardon
11 me -- model plant for well sites emissions reductions.
12 Cost per ton, we go from annual to semiannual on well
13 sites -- natural gas well sites, low GOR well sites and
14 high GOR well sites, are from \$3,900 to \$21,000 per ton.
15 If you go from annual to quarterly in those same well
16 sites, \$5,900 to \$31,000. And when you look at
17 semiannual to quarterly, you go from almost \$8,000 to
18 over \$42,000 per ton. And that's on well sites.

19 When you go to gathering and boosting
20 stations, gas plants and transmission compressor
21 stations, our recommendation is that anything with under
22 25 tons per year is semiannually and anything equal to
23 or greater than 25 tons per year is quarterly. NMED has
24 started off at less than 25 tons per year quarterly and
25 as for monthly an LDAR on anything -- any of these sites

1 that is 25 tons per year or more. That results in some
2 very, very large incremental costs.

3 When you go from semiannual to quarterly, our
4 costs indicate that the incremental cost per ton in the
5 San Juan Basin is \$34,000 per ton. When you go to
6 quarterly -- excuse me. When you go from quarterly to
7 monthly, look at what the numbers do. \$300,000 per ton
8 incrementally to go from quarterly to monthly.

9 That's what happens when you basically, in one
10 sense, don't look at the incremental costs that we're
11 asking the industry to -- to bear, to perform more
12 frequent LDARs.

13 One more comment that NMED had expressed, they
14 expressed concern that tying LDAR requirements to the
15 NSPS programs may be inadequate because the federal
16 requirements can be changed or rescinded. And NMOGA
17 suggests that NMED adopt the federal requirements of a
18 certain date to freeze the requirements as desired.

19 And that's the end of my summary.

20 MR. HISER: And then so we do have a couple of
21 slides for a proffer at the end, Madam Hearing Officer.

22 These go to occupied area. On this slide
23 Mr. Smitherman would have testified that the Oxy/EDF
24 proposal would increase the number of frequencies and
25 that would -- is not necessary because large emitters

1 are covered by AVOs and some of the other inspections,
2 and it also increases the cost. And that would be
3 NMOGA's proffer on this slide.

4 The next slide, which is slide, I believe, 53,
5 here he would have repeated the general concern is that
6 the cost to -- is the surveys and this can cause a large
7 incremental cost increase. Even a representative would
8 have ranged from in the range of 18,000 to 68 -- 69,000,
9 if he had testified on this. And that would be NMOGA's
10 proffer on this slide.

11 And then on this slide he would have presented
12 those same costs basically in a tabular form just to
13 show them as they relate to the differences between well
14 sites which have a lower cost versus certain types of
15 oil and gas sites -- or oil sites that have a much
16 higher cost than the potentially nearly \$99,000 cost.
17 That would have been his proffer on this slide.

18 On this slide he would have done the same
19 thing with this case showing going from semiannual to
20 monthly, showing the incremental VOC reductions, and
21 then showing that the costs range from 28,000 to about
22 150,000. And that would have been his proffer -- or his
23 testimony on this slide.

24 I think there's one more.

25 And the last one, he would have gone from

1 quarterly to monthly, once again discussing the well
2 sites and the two different types of oil sites. They're
3 showing the incremental VOC reductions and then
4 calculating what that would be in incremental ranging
5 from 68,000 to greater than 350,000. And that would
6 have been his testimony on that.

7 And that completes NMOGA's proffer on
8 Mr. Smitherman's slides here.

9 In addition, we had offered two spreadsheets,
10 and those spreadsheets basically contain the underlying
11 data that were used to calculate the numbers that were
12 presented in these tables. And we put them together
13 just so that it was easier for the Board should they be
14 admitted to understand the calculations.

15 And that will complete NMOGA's proffer for
16 that. One of those would be on the well sites, and then
17 the second one would be on the gathering and boosting
18 sites. So one, wells, second, gathering and boosting,
19 because they have different data sources.

20 HEARING OFFICER ORTH: Thank you very much,
21 Mr. --

22 MR. HISER: That's my proffer.

23 HEARING OFFICER ORTH: All right. Thank you,
24 Mr. Hiser.

25 Are we ready then to go to questioning for

1 Mr. Smitherman?

2 And could we take just a very short break
3 before we do that?

4 MR. HISER: Yes. That would be fine, Madam
5 Hearing Officer.

6 HEARING OFFICER ORTH: All right. Let's just
7 take nine minutes, come back at 6:10. Thank you.

8 (Proceedings in recess from 6:01 p.m. to
9 6:10 p.m.)

10 HEARING OFFICER ORTH: Let's come back from
11 the break, please.

12 Let's see. Let's get Mr. Smitherman back on
13 the screen.

14 I see Mr. Hiser.

15 MR. HISER: I believe we've completed what
16 Mr. Smitherman wanted to say at least at this point in
17 time, and so I would turn him over to the other parties
18 for their questions.

19 HEARING OFFICER ORTH: Yes. Thank you.

20 Mr. Smitherman?

21 MR. HISER: He's back.

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

24 Let's see. I see Ms. Fox on the screen.

25

1 CROSS-EXAMINATION

2 BY MS. FOX:

3 Q. Good evening, Mr. Smitherman.

4 A. Good evening.

5 Q. I just have a question, and that is who and
6 which company developed the data that you referred to in
7 your presentation on the plant models, the estimated
8 emissions reductions and the estimated costs?

9 A. Okay. There's a lot of information. Some of
10 that was -- all of it was done under my supervision and
11 my request. Some of it was done by the Earth Science --
12 Earth System Sciences. Some was done collaboratively
13 with me. And some --

14 Q. With who?

15 A. With me. Some was collaborative with me.
16 And some of it I did myself.

17 Q. And I'm not going to belabor this, but
18 generally speaking, who generated the model plant
19 information?

20 A. That was Mr. Reid Smith of Earth System
21 Sciences -- or Science Systems, I think.

22 Q. And what about the estimated emissions
23 reductions?

24 A. We collaborated on those.

25 Q. Who?

1 A. I'm sorry. I collaborated with Mr. Reid Smith
2 on those.

3 Q. Anybody else?

4 A. Not that I know of.

5 Q. And what about the estimated costs?

6 A. Well, those came from the CTG. So in essence,
7 it came right out of ERG's data.

8 Q. You didn't generate any of those numbers for
9 your estimated costs?

10 A. Well, as I said, the estimated costs came from
11 the CTG, information which ERG used. The tables that I
12 showed in my slides I generated.

13 MS. FOX: That's what I wanted to know.

14 Thank you so much.

15 That's all I have.

16 HEARING OFFICER ORTH: Thank you. Thank you,
17 Ms. Fox.

18 Is there another party who would like to ask
19 questions of Mr. Smitherman?

20 No. I don't see anyone else turning on their
21 camera.

22 I'll turn now to the Board for their
23 questions.

24 While I'm doing that, if you're on the
25 platform as an attendee and would have a question,

1 please reach out in the chat.

2 EXAMINATION

3 BY THE BOARD:

4 HEARING OFFICER ORTH: Madam Chair, do you
5 have questions of Mr. Smitherman?

6 CHAIR SUINA: No, I don't. Thank you.

7 HEARING OFFICER ORTH: Thank you.

8 Vice-Chair Trujillo Davis.

9 VICE-CHAIR TRUJILLO DAVIS: Yes. I've got a
10 couple of questions to clarify and make sure I
11 understood the data that you were presenting at the
12 beginning of your testimony.

13 But first, can you kind of explain or define
14 for me a model plant?

15 MR. SMITHERMAN: Excellent question. It took
16 me a while to figure out what that was.

17 It's an average facility. You've got a well
18 site -- and again here I'm using the well site just as
19 we are defining that term in Part 50. So it's a well
20 site would be all of the other equipment that would
21 normally be associated with that, separators, heater
22 treaters, all those things. It's an average well site.

23 In essence, you take all of the different well
24 sites that are out there, how many separators are on a
25 typical site, you take the total number, divide by the

1 sites, and you've got maybe 3.2 separators, you've got
2 maybe .5 compressors. That's what you end up with, is
3 an average number of component -- of equipment types per
4 site.

5 Same thing for the gathering and boosting
6 stations. You create an average gathering and boosting
7 station.

8 VICE-CHAIR TRUJILLO DAVIS: Okay. That is
9 super helpful.

10 And then that model plant is what was -- is
11 the basis for Section 116; is that correct?

12 MR. SMITHERMAN: What you do -- use the model
13 plant for is you take that model plant, which, in
14 essence, you end up with the total number of components
15 that could leak at the average site, you multiply that
16 times the leak rate for each one of those component
17 types, and you add all that up, and you get the average
18 leak rate of gas out of the average site.

19 And then, of course, you convert that to VOCs,
20 because all gas is not VOC, and that ends up with the
21 average emissions of VOC for the average site.

22 VICE-CHAIR TRUJILLO DAVIS: Okay. So your
23 contention was that NMED used data from 1996 and NMOGA
24 was using data from 2019.

25 MR. SMITHERMAN: That's correct. And specific

1 data from 2019 specific to San Juan Basin and specific
2 to the Permian Basin, and not only was the data that
3 he -- that the Department used was 1996 base survey, it
4 was not necessarily New Mexico base survey.

5 And think about this, too. You know, times
6 have changed. We recognize that these components can
7 leak. So wouldn't you think that engineers would start
8 trying to reduce the number of components that could
9 leak in their facility designs? And that's, why when
10 you look at the recent data, you see that those
11 component counts are down, and therefore the leak
12 potential is down. It just makes sense.

13 VICE-CHAIR TRUJILLO DAVIS: Well, yes.
14 Actually, that's what struck me about your testimony.
15 The -- just the difference in facilities that were built
16 in 1996 versus a facility even built in 2015 is
17 drastically different. The -- I remember back in 2012,
18 when we were going through the initial stages of the
19 greenhouse gas reporting, and there was a lot of work
20 being done on valves, and I actually made a joke at the
21 time that I should invest in valves, and I really should
22 have.

23 But I'm curious, if any of that -- if the 2019
24 data was -- any of that was based on those greenhouse
25 gas reports that I know were due annually, and each

1 company makes that report to the EPA.

2 MR. SMITHERMAN: Our model plant was
3 specifically based on greenhouse gas reporting data. So
4 we used data for -- specifically for the San Juan Basin
5 greenhouse gas report and the -- specifically for the
6 Permian Basin greenhouse gas report. So we used actual
7 data from those basins and assumed -- I got to admit we
8 assumed -- that the data -- the average across the
9 entire San Juan would not be any different than Colorado
10 versus New Mexico.

11 So we basically used San Juan as a
12 representative of the gas wells in Northwest New Mexico.
13 Then we used the data in the Permian Basin, Texas and
14 New Mexico, as a representative of the oil wells in New
15 Mexico.

16 VICE-CHAIR TRUJILLO DAVIS: Okay.

17 And I think my last question kind of just
18 continues to kind of speak to that, but, you know, the
19 oil fields are very different, the San Juan versus the
20 Permian, and I'm one -- and they go up and down, too.
21 They have sunny days and cloudier times.

22 So I'm wondering, in 1996 or the mid-'90s, did
23 you -- was the state seeing that level of activity that
24 we are seeing today? And again I realize that those two
25 basins are probably experiencing different things. So

1 I'm just kind of wondering as far as activity level, you
2 know, are we comparing apples to apples in this
3 situation.

4 MR. SMITHERMAN: An excellent question.

5 I -- I really can't necessarily give you
6 personal experience in the northwest, but I can give you
7 very good personal experience in the southeast part of
8 the state.

9 In the '90s started seeing quite a bit of
10 activity in more conventional drilling. It was just the
11 time that we started putting our toe in the water for
12 horizontal drilling in the Permian Basin. So actually
13 activity was moderate in the '90s, not nearly what it is
14 today, and the character has changed dramatically
15 between 1996 and 2019.

16 VICE-CHAIR TRUJILLO DAVIS: And so in the --
17 in the '90s you did the industry and -- I don't know the
18 '90s, I have to say, too well, but -- so I'm curious, in
19 the '90s were most of those wells that were being
20 drilled single well facilities, where there's one
21 facility -- or one well per facility?

22 MR. SMITHERMAN: The data indicates -- and
23 there's quite a long bit of discussion within --
24 associated with the EPA on putting these model plants
25 together, in figuring out how many wells per site that

1 they're going to assume. You might have noticed that in
2 our work and in ERG's work we used two wells per site.
3 That's probably not far off back in the early -- in the
4 early or mid-'90s. I know that our company tended to
5 have more than two per site, some places a little less
6 than that.

7 But it was a time when that was not terribly
8 unusual, to have a small number of wells per battery.
9 That is changing, and I think as we watch over time
10 we're going to see the number of wells per site go up.

11 And that is a very good thing. It's a good
12 thing for a lot of reasons. And one of the reasons is
13 it's going to -- you're going to see a drop in the
14 number of components per well, because as you put more
15 wells on a site, they're more efficient, and therefore
16 they have fewer components per well that they're
17 serving. So that's a good thing.

18 They're also smaller in footprint. Each
19 individual site might be bigger, but you're using one
20 site where you might have used multiple sites in the
21 past. That's good for the -- for the surface of the
22 earth, also.

23 VICE-CHAIR TRUJILLO DAVIS: Okay. Thank you.
24 You answered my follow-up question with that. So thank
25 you.

1 And I appreciate your time.

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

3 HEARING OFFICER ORTH: Thank you.

4 Member Bitzer?

5 MEMBER BITZER: Yeah.

6 Real quick, one of the slides was done
7 about -- early on was done about the things that we're
8 not regulating, the nonhydrocarbon.

9 One of the nonhydrocarbons that was listed was
10 H₂S, and I'm assuming that's hydrogen sulfide; is that
11 correct?

12 MR. SMITHERMAN: That's correct.

13 MEMBER BITZER: I know it stinks.

14 Isn't it also toxic?

15 MR. SMITHERMAN: It is toxic. And when I say
16 not regulated, I don't mean not regulated. I mean it's
17 not a part of this particular rule, because it's not an
18 ozone precursor.

19 MEMBER BITZER: Right.

20 MR. SMITHERMAN: It's highly regulated.

21 MEMBER BITZER: Yeah. It's highly toxic.

22 (Simultaneous discussion.)

23 MR. SMITHERMAN: Exactly.

24 MEMBER BITZER: Okay.

25 And then you've finally -- yeah. I was going

1 to ask about the many wells. You talk about many wells
2 on the same -- essentially the same pad. I thought the
3 directional drilling or the -- or the -- what did you
4 call it -- horizontal drilling was all the same hole,
5 basically, and then you just turned directions once you
6 went -- once you went down.

7 Are you drilling multiple holes in the same --
8 off the same pad? Is that what you're telling me?

9 MR. SMITHERMAN: We are. There -- there are
10 technologies where you can drill multiple laterals from
11 a same -- same wellbore. Not many operators have
12 adopted that yet. So most of the time you'll see an
13 individual wellbore for an individual horizontal
14 lateral. These wells are close together. They
15 literally can be 10 or 15 feet apart from each other.
16 So you can put a lot of wells on a pad.

17 MEMBER BITZER: Fair enough.

18 That's all I had, Madam Hearing Officer.

19 Thank you.

20 HEARING OFFICER ORTH: All right. Thank you.

21 Member Garcia?

22 MEMBER GARCIA: Yes. I just had a clarifying
23 question, please.

24 You said that the gains between going --
25 inspecting quarterly versus monthly were diminishing

1 returns, and I think I understand intuitively what
2 you're meaning by that, but I'm also looking at it in
3 terms of over time.

4 Wouldn't you have older equipment and still be
5 able to catch more leaks and problems in the equipment?
6 Now, I understand your point that yes, you catch more,
7 but it becomes so much more expensive for the tons of
8 emissions reduced than it's not worth. But there still
9 is an opportunity to catch more leaks if you increase
10 the frequency, right?

11 And then some of the leaks, if you have older
12 equipment, they could -- they could be larger or smaller
13 depending on the year or the time that you do it.
14 It's -- you can't predict that, correct?

15 MR. SMITHERMAN: You cannot predict it. The
16 data seems to indicate -- in fact, the data has
17 consistently indicated that under any LDAR frequency
18 once you put the LDAR program in place the number of
19 leaks found in each successive survey goes down.

20 In essence, what you're doing is you're
21 finding those weak points in the system that are about
22 to break, and -- or that have broken, and you repair
23 them and replace them. And in essence, you're -- you're
24 taking the weak links out. And you couple that with two
25 other things. You couple that with now weekly AVOs,

1 which the OCD is requiring, documented AVOs.

2 Now, we've heard testimony that AVOs are not
3 as effective as LDAR, and I'll agree with that. But
4 it's not nothing. In fact, I was on a site about two
5 months ago, and even these 63-year-old ears could hear
6 malfunctioning controller. So you can find substantial
7 numbers of leaks through audio, visual and olfactory
8 surveys. So that's the second kind of component of a
9 three-legged stool.

10 And the other is maintenance, and making sure
11 that we're operating and maintaining our equipment, and
12 documenting that as we're going to be required to do so
13 is the third leg. And all of those together are going
14 to drive down the leaks and drive down emissions.

15 Quite frankly, it drives up the costs per ton
16 of LDAR, because you've been successful. In fact,
17 that's why many operators are asking for an alternative
18 plan, because they're going to eventually find ways to
19 use new technologies, to screen and find places that
20 they need to do LDAR, and be able to optimize those
21 costs and reduce emissions further at a lower cost.

22 MEMBER GARCIA: Thank you very much. I
23 appreciate that.

24 That's all.

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

1 HEARING OFFICER ORTH: Thank you.

2 Member Honker?

3 MEMBER HONKER: Yeah. Just a couple of
4 questions, Mr. Smitherman.

5 I was looking through your presentation, and I
6 see a lot of, you know, costs per ton of reduction, but
7 I didn't see the absolute costs for your model plant of,
8 you know, annual cap -- costs of doing LDAR annually,
9 semiannual, quarterly.

10 Are those in there somewhere?

11 MR. SMITHERMAN: Not in my slides. I can tell
12 you what we used. It was the same thing that -- from
13 the CTG. We used \$1,370 per site for annual LDAR, and
14 that is corrected to 2019 dollars. We used \$2,375 for
15 semiannual on well sites. And we used \$4,385 for
16 quarterly, again for well sites. I didn't write down my
17 gathering and boosting cost. I do have the annual
18 number, which was 8,082, but I got distracted and didn't
19 finish my table.

20 MEMBER HONKER: Okay. So some of these costs
21 per ton are really over multiple periods of doing LDAR,
22 are they not? Or multiple years in some cases? You
23 know --

24 MR. SMITHERMAN: Actually, it's all -- I'm
25 sorry. Go ahead.

1 MEMBER HONKER: To get to the numbers like in
2 your slide 50, you must be adding costs through several
3 years, maybe -- maybe under your calculations that's
4 what it takes to get a ton of pollutant reduction.

5 MR. SMITHERMAN: Each of my numbers is on an
6 annual basis. So it's the annual cost for LDAR. If you
7 did LDAR quarterly, it's all four of those LDAR survey
8 costs combined for the year, and it's the tons of
9 emissions for just that year.

10 MEMBER HONKER: Okay.

11 MR. SMITHERMAN: All on an annual basis.

12 MEMBER HONKER: But, I guess, picking up on
13 what Member Garcia was asking about, wouldn't most of
14 your reductions come during the first few cycles of
15 doing LDAR?

16 MR. SMITHERMAN: They do. We do see a
17 diminishing return on repeated LDAR surveys. The -- the
18 emission factor -- emission reduction factors from EPA
19 are the emission factors that everyone in this hearing
20 had used, and they're static.

21 MEMBER HONKER: Okay.

22 All right. Thanks a lot. That's all I have.

23 MR. SMITHERMAN: Thank you, sir.

24 HEARING OFFICER ORTH: Thank you.

25 Mr. Hiser, does any of that prompt redirect?

1 MR. HISER: I do have a question for
2 Mr. Smitherman, which is not completely redirect, but I
3 think if Madam Hearing Officer will indulge me, she'll
4 understand why I want to ask that question.

5 FURTHER DIRECT EXAMINATION

6 BY MR. HISER:

7 Q. So, Mr. Smitherman, you've heard a number of
8 pieces of testimony throughout this hearing about
9 concerns of fence-line communities related to the oil
10 and gas industry, have you not?

11 A. I have, sir.

12 Q. Does NMOGA have anything it wants to say about
13 what it would like to do to address some of those
14 concerns?

15 A. Certainly. And really from a personal
16 standpoint, I understand that. I -- actually my own
17 home is within just a little over a half a mile from 21
18 gas wells and two gas compressors, and within a mile I
19 actually have 26 wells and three compressors. So it
20 does hit a little closer to home. And we recognize and
21 sympathize with the concerns that others have expressed
22 about this, and we would like to offer a possible
23 solution.

24 What we'd like to offer is right now some of
25 these wells that could be near occupied areas are not

1 required to have weekly LDAR under OCD's rules or under
2 these rules.

3 Q. You mean weekly AVO?

4 A. Excuse me. Thank you very much for that.
5 That would be really expensive.

6 Weekly AVOs. And we would suggest that all of
7 these sites that are occupied within whatever footage
8 that NMED finds is appropriate have weekly A -- weekly
9 AVOs and that LDAR for those sites be quarterly. That
10 seems to strike a balance between the really, really, as
11 I've discussed, really high cost to do LDAR on a monthly
12 basis, and it -- but it also makes sure that we have
13 documented AVOs on a weekly basis on those sites.

14 Q. Thank you, Mr. Smitherman.

15 And so, Madam Hearing Officer, I thought that
16 sort of recent development would be of interest to the
17 Board Members. And of course, if there are questions
18 from the parties, happy to have that happen, as well.

19 HEARING OFFICER ORTH: All right. Let me
20 check.

21 Would any party like to turn on their camera
22 and have a question about Mr. Smitherman's last
23 statement there?

24 I'm not seeing anyone, Mr. Hiser.

25 Would any Board member have a question of

1 Mr. Smitherman's last statement? Just wave your hand.

2 FURTHER EXAMINATION

3 BY THE BOARD:

4 HEARING OFFICER ORTH: Oh, Member Garcia.

5 MEMBER GARCIA: Yes. Just to understand,
6 would you be proposing language and -- in a
7 particular -- I know this is -- we're talking about 116,
8 but would you be proposing language to fine-tune exactly
9 what you're saying?

10 MR. SMITHERMAN: We'd be happy to do so.

11 HEARING OFFICER ORTH: Madam Chair.

12 CHAIR SUINA: Thank you for that follow-up
13 question, Member Garcia.

14 And just to follow up on that, just in terms
15 of process, I was just wondering how -- not to open up
16 another can of worms, but just so I can get my head
17 around this -- maybe this is a question for our Hearing
18 Officer.

19 Would we be able to have Mr. Smitherman back
20 at some point after some of the other testimony that we
21 hear on this particular item on 116, and in particular
22 related to his testimony and some of the proffers?

23 HEARING OFFICER ORTH: So I was about to say,
24 actually, we still have several witnesses to go on
25 116 --

1 CHAIR SUINA: Right.

2 HEARING OFFICER ORTH: -- and the Board can
3 certainly request Mr. Smitherman make another
4 appearance. It will depend on his availability. I
5 understand he's not available tomorrow.

6 But let me ask about future availability.

7 MR. HISER: Madam Hearing Officer --

8 MR. SMITHERMAN: I'm available Friday.

9 MR. HISER: Mr. Smitherman is available on
10 Friday. That's probably our most immediate need, would
11 be that Friday. He's got some availabilities
12 sporadically thereafter, which we would purport to make
13 him available at anybody's convenience. But hopefully
14 we can wrap this up on Friday. I think that's still
15 everybody's goal.

16 HEARING OFFICER ORTH: Yes. Yes. Firm --
17 firm goal.

18 All right. So, Madam Chair, does that answer
19 your question?

20 CHAIR SUINA: It does in terms of his
21 availability, and I was just wondering if there would be
22 language in the meantime proposed so that we could
23 follow up with that to add on to Member Garcia's
24 question and comments.

25 HEARING OFFICER ORTH: Let me ask Mr. Hiser.

1 MR. HISER: Madam Hearing Officer -- sorry.
2 I'm having video problems.

3 Yes. We will propose language along the lines
4 you just heard from Mr. Smitherman on this issue, and
5 we'll try to get that to the Board perhaps tomorrow
6 morning, and I'm sure that we maybe have other
7 discussions, as well. But we will be getting language
8 in.

9 CHAIR SUINA: Thank you.

10 HEARING OFFICER ORTH: Thank you.

11 MR. HISER: And then, Madam Hearing Officer, I
12 wonder if the only other thing would be --
13 Mr. Smitherman's testified to the -- obviously, the
14 nonproffered stuff. I think the tables are going to be
15 easier for everybody to follow than trying to read it in
16 the transcript. I'm wondering if it would be
17 appropriate to go ahead and mark this as a NMOGA
18 Exhibit 58 without the proffered materials, and then to
19 have those tables 58 -- or 59, 60 and 61.

20 HEARING OFFICER ORTH: Any objections from any
21 other party?

22 I'm going to mute you, Madam Chair.

23 Any objections from any other party to that
24 proposal?

25 I think it might be easier to follow in the

1 transcript.

2 Okay. We'll do that, Mr. Hiser. Thank you.

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

4 (Exhibit NMOGA 58 admitted.)

5 HEARING OFFICER ORTH: And I see Mr. Rose on
6 the screen.

7 MR. ROSE: Yes, Madam Hearing Officer.

8 Before -- I don't want to throw rain on this
9 parade, but as to Mr. Smitherman's last proposal, I just
10 wanted to note that there may be folks who would want to
11 opine on that proposal who may not be here because, at
12 least in my estimation, it's beyond the scope of the
13 notice that you gave. And so -- both pro and con as to
14 the proposal.

15 And so I think entertaining a regulatory
16 proposal at this late date may -- may prejudice some
17 folks who aren't going to be -- who aren't here or
18 aren't available to testify on that. So just wanted to
19 alert the Board that there may be an issue with respect
20 to taking that up in the context of this particular
21 hearing. It may be the fodder for a future hearing, but
22 from my perspective, I think you're going to have notice
23 issues with respect to this area.

24 HEARING OFFICER ORTH: Thank you for that,
25 Mr. Rose.

1 I would certainly want to keep notice issues
2 in mind. I'm sure that Ms. Soloria would also have --
3 be keeping that in mind. But thank you for that.

4 Any other questions from the Board?

5 All right. Then thank you, Mr. Smitherman and
6 Mr. Hiser.

7 It is 6:40. I'm not sure what else we can do
8 that would fit in the next 20 minutes.

9 Ms. Katz?

10 Oh, I'm sorry. I see Member Garcia waving.

11 MEMBER GARCIA: Just a quick question about
12 the status of where we are.

13 Are we looking like we're going to finish by
14 Friday? Are we doing okay?

15 HEARING OFFICER ORTH: We have a lot of
16 topics, and I did want to mention that. This is the
17 paper I was looking for just now.

18 We need to hear from Mr. Alexander before we
19 can tie up Topic 117. We need to hear from
20 Mr. Alexander before we can tie up Topic 122. We still
21 have several witnesses on this topic, LDAR. And then,
22 of course, we also have topics, I believe, 123 and --
23 sorry -- yeah, Sections 123 and 124.

24 Right, Ms. Katz?

25 MS. KATZ: Yes. And we -- there's also

1 another topic from -- the topic that's numbered 37,
2 which is the proposed -- proposal for reduced emission
3 completions from EDF, CAA, CPP and NAVA.

4 So I would ask -- my ask would be that we try
5 to push through and get finished with LDAR this evening.
6 I -- that would be the only chance that we -- I think we
7 would have to potentially wrap things up Friday, by the
8 end of Friday. So that would be what I would ask, and I
9 am sure there's --

10 MR. HISER: NMOGA is --

11 MS. KATZ: -- going to be opinions on that.

12 HEARING OFFICER ORTH: Okay.

13 MR. HISER: NMOGA is supportive of that, as
14 well, Madam Hearing Officer.

15 HEARING OFFICER ORTH: I'm sorry. Repeat
16 yourself, Mr. Hiser?

17 MR. HISER: I said NMOGA is supportive of
18 trying to push through to the end of LDAR today if we
19 can.

20 HEARING OFFICER ORTH: All right.

21 Mr. Butzier?

22 MR. BUTZIER: GCA also supports that proposal.
23 I think we should absolutely do everything we can to
24 finish Friday.

25 HEARING OFFICER ORTH: Ms. Fox?

1 MS. FOX: Thank you, Madam Hearing Officer.
2 We can support staying later. That's not a
3 problem. But our one LDAR witness, Ms. Lee Ann Hill,
4 the only conflict she's had in the whole two weeks is
5 tonight, right now. And so she is not available right
6 now, but she is available all day tomorrow. So we could
7 put -- if we get through everybody but Ms. Hill, we
8 could put her on first thing tomorrow morning.

9 HEARING OFFICER ORTH: All right.

10 Ms. Paranhos, we would go back to Tammy
11 Thompson at this point.

12 MS. PARANHOS: Correct. I am definitely
13 supportive of continuing and getting through LDAR this
14 evening. I do need to see if she is available because I
15 had indicated to her that we usually wrapped up with
16 witness testimony by 6:00 p.m. So let me try to get her
17 now.

18 HEARING OFFICER ORTH: I see her on the
19 platform. There she is.

20 MS. PARANHOS: Oh, perfect. That's amazing.

21 HEARING OFFICER ORTH: All right. Let's go,
22 then, to Dr. Thompson and see if we can get just a
23 little bit further this evening.

24 Cheryl, are you doing okay?

25 THE REPORTER: If you can give me a second to

1 turn a light on. It's getting dark in here.

2 HEARING OFFICER ORTH: Go ahead.

3 All right. Thank you.

4 Go ahead, Ms. Paranhos.

5 MS. PARANHOS: Terrific.

6 TAMMY THOMPSON

7 (Relating to Topic Order 27)

8 having been first duly sworn or affirmed, was

9 examined and testified as follows:

10 DIRECT EXAMINATION

11 BY MS. PARANHOS:

12 MS. PARANHOS: And I believe that last time or
13 perhaps (unintelligible and/or inaudible). So

14 Dr. Thompson's exhibits are EDF Exhibit A, which are our
15 proposed red-line, GG, HH, II, JJ, TT, and that is her
16 direct testimony, Exhibit TT.

17 Q. Dr. Thompson, do you have any revisions to
18 your direct testimony that you filed with respect to
19 Section 116?

20 A. I do not.

21 And please let me know if -- if you all can
22 hear me well enough. I know I've had some audio issues
23 in my office before. So --

24 Q. We can hear you fine right now, at least I
25 can.

1 A. Okay.

2 Q. Could you please summarize for the Board the
3 opinions in your testimony regarding EDF's alternative
4 proximity proposal.

5 A. Sure. I support EDF's proximity proposal
6 based on -- or the -- I'm sorry -- the proposed
7 proximity-based LDAR requirement that will reduce
8 volatile organic compounds that contribute to
9 ground-level ozone and reduce exposure to harmful
10 pollutants for persons residing, working or playing
11 within 1,000 feet of oil and gas facilities.

12 In addition, increasing the frequency of well
13 site inspections and quickly repairing any
14 malfunctioning or leaking equipment, as proposed by EDF,
15 will reduce the emissions of all VOCs from oil and gas
16 operations in New Mexico. This would also -- this
17 resulting reduction in VOCs will help New Mexico reduce
18 local formation of ozone and thus help New Mexico stay
19 in attainment of the National Ambient Air Quality
20 Standards for ozone.

21 Ozone, as we know, is a criteria pollutant
22 that EPA recognizes as dangerous to humans.

23 Q. Thank you, Dr. Thompson.

24 And if you could please just elaborate a bit
25 on the ozone benefits of EDF's proximity-based LDAR

1 proposal.

2 A. Right. So again one of the clear benefits of
3 EDF's proposal is that it will lead to these additional
4 VOC reductions, and as we talked about before, VOCs are
5 a key component to ground-level ozone. So by reducing
6 VOCs you will help reduce the local formation of ozone
7 and help the state remain in compliance of the ozone
8 NAAQS.

9 So as my colleagues have stated earlier today,
10 EDF estimates that requiring quarterly rather than
11 annual or semiannual inspections at well sites with
12 site-wide VOC emissions less than five tons per year
13 will result in an additional 2,080 tons of VOC
14 reductions annually. And if you bump up the inspection
15 frequency to monthly for all the well sites located
16 within 1,000 feet of occupied areas that emit greater
17 than five tons per year of VOCs, we will remove an
18 additional 3,600 tons of VOCs from the atmosphere.

19 So again VOCs, as I spoke about in my last
20 testimony, are a key component to the formation of
21 ground-level ozone. We know that ground-level ozone, as
22 one of the public testimonies stated earlier, is a
23 dangerous air pollutant. It's like a sunburn to your
24 lungs. I liked that. But it is a very reactive species
25 that reacts with your lung tissue and damages it.

1 Exposure to elevated concentrations of ozone
2 lead to serious adverse health effects, including
3 asthma, increased emergency room visits and premature
4 death. Impacts -- these impacts are particularly severe
5 in sensitive populations like children and the elderly.
6 And we know that ozone also causes direct harm to the
7 environment. It impedes plant growth and vitality, and
8 we know it decreases crop yield.

9 As we've heard and discussed, air quality in
10 seven counties in New Mexico is dangerously close to
11 being out of compliance with the federal health-based
12 standards for ozone. Much more must be done to protect
13 healthy air and to protect against air quality
14 degradation in New Mexico.

15 These additional inspections at well sites,
16 especially near occupied areas, can help the Department
17 protect air quality.

18 Q. Thank you, Dr. Thompson.

19 And could you explain to the Board what
20 benzene is.

21 A. Benzene is a well established cause of cancer
22 in humans. It is recognized as an air toxic by the
23 USEPA, and air toxics -- they're -- these compounds that
24 are listed as air toxics are also referred to as
25 hazardous air pollution -- air pollutants, or HAPs. So

1 those terms can be used often interchangeably, and I
2 just wanted to clarify that. So air toxics and
3 hazardous air pollutants recognized by USEPA, and
4 benzene is one of them, and again it has been solidly
5 linked to cancer in humans.

6 Q. Thank you.

7 And do oil and gas sources emit benzene?

8 A. Yes. Benzene is one of the VOCs that is
9 emitted from oil and gas production, benzene along with
10 other hazardous air pollutants, again HAPs. And we have
11 heard from our colleague that the measurement campaign
12 done by the University of Wyoming in New Mexico found
13 high levels of benzene in the emissions from New Mexico
14 wells.

15 Q. Thank you.

16 And is there a safe level of exposure to
17 benzene?

18 A. No. No. The USEPA and the World Health
19 Organization have made that declaration. And WHO, World
20 Health Organization, states that there is no safe level
21 of exposure to these toxic compounds.

22 To go into a little bit more detail, we --
23 giving up. I put my notes away.

24 So the relationship between -- so what's
25 called the dose-response curve, the relationship between

1 human health response and the dosage, what you're
2 breathing in, so that is assumed to be linear, and it
3 crosses the X axis at zero, meaning the only way to
4 reduce your risk of health -- of negative health
5 response to these components is to have zero exposure to
6 them.

7 So there's no -- there's no -- there's no
8 level where we can say nothing is going to happen.

9 Q. Great.

10 And, Dr. Thompson, could you describe some of
11 the studies that have examined health impacts to people
12 that live, work or play near oil and gas facilities?

13 A. Sure. I will talk about a very comprehensive
14 study that was done by the Colorado Department of Public
15 Health and the Environment, CDPHE. And so this study
16 links air pollution emissions from oil and gas
17 production operations to potential serious human health
18 impacts in populations living at specific locations
19 near -- or specific vicinity to well sites.

20 And so this is a modeling study that used
21 emissions that were measured from specific -- they were
22 measured from specific processes. So a team went out
23 and measured basically plumes from four types of
24 processes on well sites. So they have emissions
25 associated with drilling, fracking, flowback and

1 production.

2 So we take these emissions estimates, and we
3 use a model. This one is called AERMOD. It's
4 recognized by the USEPA. It's a dispersion model. And
5 we represent various -- well, actually many years of
6 meteorological data that can -- that represent a lot of
7 variability in wind speed and wind direction. And they
8 use what's called a Monte Carlo approach, where they
9 measured the plumes from emission -- emissions plumes
10 representing a number -- representing tens of thousands
11 of different wind speeds, wind directions, emissions
12 rates.

13 So to take a step back, the purpose of this
14 whole study was to understand the range of potential
15 concentrations that people living and breathing near
16 well sites might be exposed to for a short time, an
17 hour, like an acute hourly exposure, to longer time, an
18 annual to lifetime exposure.

19 And they take into account different activity
20 patterns, how much time you might spend outdoors, how
21 much time you might spend actually in the vicinity. And
22 they looked at discrete -- well, they actually looked at
23 a continuous range of points between like right at the
24 well site to 2,000 feet.

25 And this -- again this study used years worth

1 of data, wind speed and wind direction. One of the --
2 one of the challenges -- and this came up earlier, you
3 know, how representative the meteorology and the
4 understanding of how wind -- wind can impact what's
5 downwind.

6 So first off, there is -- there is always
7 going to be shifts in wind that will move pollutants
8 around. So there's no -- there's no place that's going
9 to be upwind and safe all the time. Right? And then
10 there's low wind speeds where pollutants can kind of
11 just sort of slowly disperse and settle, and it does
12 create more of like a circle around the -- the site or
13 the source.

14 So they took into that account -- they took
15 that into account, and they actually mapped out, you
16 know, by wind speed and wind direction all of the data
17 that they use. And it was fairly representative. So
18 you got the full -- the full circle of direction, and
19 you got a wide range of wind speeds to -- to show what
20 these -- what the range of impacts would be. Right?

21 And so from that -- from that they looked at
22 the minimum and the maximum, they looked at the average,
23 so what you could expect. And they compared that to
24 again our best understanding of human health response.

25 And again we talked about how there's no safe

1 level of exposure. So how they do it is they use our --
2 they use animal models and our understanding of health
3 response to estimate a one in a million chance of
4 getting cancer -- additional chance of getting cancer
5 associated with a certain type of -- with a certain
6 level of exposure. And that's the limit that they set.
7 Anything above that, they -- there is a red flag.

8 And so that's how -- that's what this study
9 was looking at, any increase over that one in a million
10 chance of -- of getting cancer from this exposure.

11 And so what they found -- so this -- again
12 this study of Monte Carlo, tens of thousands of runs,
13 they created these -- these surface maps of
14 concentrations around well sites.

15 And they used three different types -- they
16 used three different sizes of well sites where they
17 increased the emissions, representing three to 18
18 particular well drilling sites on a well pad. And
19 they -- instead of representing the well sites as point
20 sources, they smeared it across the -- like the one-acre
21 plot with three well sites, instead of three point
22 sources, it was an area source, which has the effect of
23 underestimating what the max concentration would be.

24 You can imagine a plume from a specific source
25 transporting out verse -- which is how it is in real

1 life, versus that same emission smeared across a
2 one-acre well -- well plot where it's artificially
3 diluted ahead of time. And so that -- that had the
4 effect of actually underestimating what the potential
5 concentration could be, probably by a little bit, but I
6 saw there was testimony saying that that was
7 overestimating, but it wasn't. It was underestimating.

8 So here are some of the things that they found
9 with respect to benzene and other hazardous air
10 pollutants.

11 So benzene exposure from both production
12 emissions alone, but then also from all activities
13 combined, so that's the drilling, fracking, flowback and
14 production, were associated with an increased lifetime
15 risk, so again above one in a million, of leukemia for
16 just an average individual at 500 feet.

17 So again they looked at like minimum, like
18 someone who wasn't exposed to the maximum
19 concentrations, and maybe spent less time in that
20 vicinity, versus the maximum. And so they looked at
21 just -- and then an average individual, so like the
22 median, and that person had an increased risk of
23 leukemia at 500 feet.

24 They also looked and they found risks in
25 population exposed to the highest concentration, so

1 again, you know, using the model and finding that
2 location at the highest benzene concentration, only
3 dropped to below the one in a million risk threshold
4 after a distance of 2,000 feet. So that was important.
5 Right? So you had to get 2,000 feet away from the well
6 to -- to drop your -- the maximum risk of increased
7 leukemia to below that one in a million risk threshold.

8 So in addition to the cancer risks, there are
9 also risks associated with blood disorders and immune
10 disorders. So this -- this question also came up
11 earlier. Right?

12 And what they found for noncancer health
13 risks -- so -- and this is similar to the headache, like
14 that acute like, oh, I don't feel good. Right? This
15 is -- this is associated -- this can be associated with
16 that. So benzene and two ethyl toluene emissions were
17 found to be higher than what would be considered
18 acceptable risk for most of the simulated populations at
19 500 feet away after -- so this is a one-hour acute
20 exposure.

21 And then exposures of benzene were more than
22 10 times higher than the acceptable risk for that
23 one-hour maximum exposure, and therefore it's a risk for
24 blood disorders. And again blood disorders can result
25 in anemia, disturbances in clotting or the ability to

1 fight infections could manifest as fatigue, nosebleeds
2 or infections.

3 And then the study also found the potential
4 for neurotoxic effects, such as headaches, blurred
5 vision, dizziness, from the combined acute exposure of
6 benzene into ethyl toluene.

7 And so these risks were seen with acute
8 exposure in every age group, and these exposures and
9 risks were highest during the flowback stage. They were
10 higher than those from other drilling and fracking
11 activities.

12 Q. Thank you so much.

13 A. So -- yep. Go ahead.

14 Q. Thank you. That was a super helpful summary.

15 Could you describe in your opinion what the
16 policy implications are that flow from the CDPHE study?

17 A. Yeah. I mean, it shows -- it show a need for
18 more stringent controls of oil and gas emissions at well
19 sites especially located near to where people play, work
20 or recreate. People living near oil and gas sites will
21 breathe in more of these harmful species. And as the
22 CDPH -- CDPHE study has shown, that if you're living
23 within 2,000 feet of an oil and gas site, they have
24 evidence to suggest that there is a potential that
25 humans could inhale enough to statistically increase

1 their likelihood that they will develop cancer or other
2 negative health effects.

3 MS. PARANHOS: Thank you so much,
4 Dr. Thompson.

5 Those are all of my questions, and there is no
6 surrebuttal from Dr. Thompson.

7 HEARING OFFICER ORTH: Thank you very much,
8 Ms. Paranhos and Dr. Thompson.

9 I see Mr. Rose and then Mr. de Saillan.
10 Go ahead.

11 MR. ROSE: Yeah. Thank you, Madam Hearing
12 Officer.

13 I just wanted to remind the Board that this
14 testimony was subject to the objection that I raised
15 earlier concerning the relevance in this hearing.

16 CROSS-EXAMINATION

17 BY MR. ROSE:

18 Q. Dr. Thompson, it looks like basically you took
19 your rebuttal testimony, which is EDF Exhibit TT, and
20 sort of expanded on what you had said in your rebuttal
21 testimony; is that correct? Or explained what you said
22 in your rebuttal?

23 A. That's right. I tried to make it in just more
24 understandable language.

25 Q. Is the Colorado study in the record of this

1 proceeding? Did you offer that as an exhibit to your
2 testimony?

3 A. If I didn't, that was an oversight.

4 MR. ROSE: And, Madam Hearing Officer, without
5 the study, obviously, it's difficult to evaluate and
6 question the witness as to the propriety of her
7 statement. So -- and I think we talked about that
8 earlier in terms of proper rebuttal testimony or
9 surrebuttal. So I just wanted to note that for the
10 record.

11 Q. In terms of your discussion of health impacts,
12 I know you talked about benzene and potentially other
13 pollutants that are comprised or maybe emitted from well
14 sites.

15 Is your concern impacts of those contaminants
16 the components of emissions from well sites as opposed
17 to concerns about exceeding the ozone NAAQS?

18 A. I'm -- it -- it's not either or, right? It
19 would be both. Both are harmful to humans.

20 Q. Well, I guess what I'm getting at is in your
21 discussion about impacts of emissions on facilities or
22 residences or people that occupied structures that are
23 close to oil and gas wells -- I was wondering whether
24 your testimony about impacts was because the ozone NAAQS
25 were being exceeded at those locations or because you

1 believe that there are other impacts from those
2 emissions that may not be directly related to ozone
3 concentrations.

4 A. I believe it's -- I believe it's both.

5 Q. Let me put it more directly. Do you have any
6 evidence that the ozone NAAQS are being exceeded at
7 these locations?

8 A. I believe we were talking about preventing the
9 exceedance in the future, but also there's no safe level
10 of ozone. So it's not necessarily -- I mean, if I'm
11 talking about human health, there is no safe level of
12 ozone. So there's no level of ozone that people can
13 breathe where they're not going to have a negative -- or
14 they're not -- it's going to be good for them. Right?
15 It's going to be bad for them at any level. So yeah. I
16 would be concerned about that, as well.

17 Q. I take it you disagree with the federal ozone
18 NAAQS that we're talking about here, which in your
19 opinion --

20 A. And been --

21 (Simultaneous discussion.)

22 Q. And --

23 A. Scientists have been trying to make it lower
24 for a very long time. Health scientists have said it
25 needs to be lower for a very long time. And that could

1 be in the future, and that's something to be prepared
2 for. Right?

3 Q. And I guess the follow-up question is had --
4 did EDF propose that New Mexico adopt -- adopt a lower
5 ozone primary -- primary ambient air quality standard
6 from the federal standard? Is that part of your
7 proposal today, or has --

8 A. No.

9 Q. -- EDF proposed that the state adopt a more
10 stringent standard?

11 A. No. That is not a part of the proposal. No.
12 It is not.

13 Q. Okay.

14 And with respect to your testimony about --
15 about nonhealth-related impacts, I take it the federal
16 secondary standard is designed to address those impacts.

17 What's the federal secondary standard for
18 ozone? Do you know offhand? Or is there one?

19 A. Yeah. So it's -- it's related to -- oh, my
20 goodness. It's a complicated -- it's a complicated
21 measure that looks at the average daylight ozone over
22 the course of -- it's more complicated than the
23 eight-hour. But yes. There is a secondary standard
24 that looks at basically like daytime exposure of plants
25 over the course of a longer period of time.

1 Q. And they're -- do you know whether New
2 Mexico's adopted either a primary or secondary ozone
3 standard that's more stringent than the national
4 standards?

5 A. No. I'm -- I --

6 MS. PARANHOS: Objection. This goes really
7 way beyond the scope of Dr. Thompson's testimony.

8 MR. ROSE: I think it doesn't, Madam Hearing
9 Officer. I think the notice of this hearing said we're
10 to talk -- the hearing is to consider measures to assure
11 that, one, implementing the state statute, but to assure
12 that the National Ambient Air Quality Standard for ozone
13 is met and that we're regulating ozone precursors to
14 assume that. And I think Dr. Thompson's testimony goes
15 well beyond implementing the ozone NAAQS. It goes to
16 other health effects which -- which are not the subject
17 of this hearing based on the notice of this hearing.

18 That -- that's the basis of my objection to
19 the admission of this testimony, and to the extent it's
20 being considered, it seems to me I have the right to
21 explore exactly what she's asking this Board to consider
22 and whether it's appropriate to consider it.

23 HEARING OFFICER ORTH: Ms. Paranhos, I tend to
24 agree with Mr. Rose that he can explore all of her
25 testimony.

1 MS. PARANHOS: I would just note that
2 Dr. Thompson is not a lawyer, and so her knowledge of
3 what the State of New Mexico has or has not adopted with
4 respect to its own ambient air quality standard is well
5 beyond the scope of her expertise.

6 HEARING OFFICER ORTH: All right. That's
7 right. So -- hold on, Mr. Rose.

8 Dr. Thompson, please, if there's a question
9 that goes beyond the scope of your expertise, you can
10 certainly note that.

11 Mr. Rose.

12 MR. ROSE: And that's all I was asking for. I
13 don't think you have to be a lawyer to be able to read
14 the Board's regulations and determine what they say.
15 And in fact, she's testifying on the national standards.
16 So I think she certainly can testify if she knows
17 whether there's an equivalent state standard on those
18 topics.

19 Q. With respect to cancer risks, Dr. Thompson, do
20 you know if there's any New Mexico or this Board that
21 has adopted any criteria for acceptable cancer risks?

22 A. Not to my knowledge.

23 Q. And are you familiar with the toxic air
24 pollutant program that's part of the Board's NSR permit
25 rules?

1 A. I am not detail -- I do not have -- I'm not
2 very familiar with that.

3 Q. And I was curious as to whether -- I mean,
4 obvious -- it appears as though EDF is not proposing any
5 changes to those programs, as well; is that correct?

6 A. Not to my knowledge.

7 MR. ROSE: That's all I have, Madam Hearing
8 Officer.

9 Again as I indicated, you know, we'll
10 certainly be addressing the admissibility of this
11 testimony in our posthearing submittals.

12 HEARING OFFICER ORTH: All right. Thank you.

13 Mr. de Saillan?

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

16 Can you hear me okay?

17 Good.

18 CROSS-EXAMINATION

19 BY MR. DE SAILLAN:

20 Q. Good evening, Dr. Thompson.

21 I just have a few questions for you.

22 First of all, pollutant levels can vary quite
23 a bit within a given area.

24 Would you agree with that?

25 A. Yes.

1 Q. Oh, I forgot to introduce myself. I'm sorry.
2 I'm Charles de Saillan. I represent the New Mexico
3 Environmental Law Center here.

4 So for example, if -- and we've been talking
5 about ozone quite a bit. So let's look at ozone. For
6 example, if EPA concludes that in a given county in New
7 Mexico the National Ambient Air Quality Standards --
8 primary standards for ozone are in compliance, you could
9 have localized areas where the ozone levels are actually
10 quite a bit higher than the ambient air quality
11 standards; is that correct?

12 A. Yes. They're called hot spots, terminology.

13 Q. Could you elaborate on that a little bit,
14 please?

15 A. Well, so because atmospheric chemistry is so
16 nonlinear and because there are so many components that
17 are required in the formation of ozone, yeah, they're --
18 and atmospheric physics and dispersion create highly
19 variable concentrations of all the pollutants, all of
20 them leading to the formation of ozone and some of them
21 that may destroy ozone, creating a highly variable
22 atmosphere.

23 And so yes. I would say ozone being a
24 secondary pollutant, however, will be less variable than
25 primary pollutants. So meaning that because it's formed

1 in the atmosphere, things tend to have more time to be a
2 little bit more well mixed. Ozone will be less variable
3 than primary pollutants like NO₂, which is also covered
4 under the NAAQS, and then hazardous air pollutants are
5 also primary, and they would be more variable.

6 Q. Okay. Thank you.

7 And then you talked -- you mentioned briefly
8 that scientists have been trying to reduce the -- the
9 standards for ozone for a while, and as I recall, the
10 Clean Air Science Advisory Committee, if I have that
11 right, I think it's the CASAC --

12 A. CASAC.

13 Q. -- a number of years ago recommended that the
14 NAAQS, the National Ambient Air Quality Standards, for
15 ozone, primary again, actually be lowered to 65 parts
16 per billion.

17 Do I have that correctly?

18 A. I believe the window that they set -- I mean,
19 as low as 60, I believe, was initially one of their
20 recommendations, but --

21 MR. DE SAILLAN: Okay. Thank you,
22 Dr. Thompson. That's all my questions.

23 HEARING OFFICER ORTH: Thank you,
24 Mr. de Saillan.

25 Are there any other parties with questions of

1 Dr. Thompson?

2 No?

3 Let me turn to the Board for their questions.

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

7 EXAMINATION

8 BY THE BOARD:

9 HEARING OFFICER ORTH: Madam Chair, do you
10 have a question?

11 CHAIR SUINA: Yes, Madam Hearing Officer, I
12 do. I have a couple of questions for Ms. Thompson.

13 Thank you again for your testimony.
14 Appreciate it.

15 You had talked a little bit about risk level
16 and some of the health studies that have been done
17 recently. And having worked in compliance up at the
18 laboratory, Los Alamos, I've had to look at some risk
19 studies. And so I was just wondering if there was any
20 risk studies and analysis done of like -- for example,
21 you talked about acute exposure and acute risk -- or
22 acute -- risk associated with acute exposure, I think it
23 was.

24 Has there -- has there been any studies of,
25 say, year over year or even generation to generation of

1 exposure related, I think, in -- you had mentioned in
2 terms of benzene?

3 MS. THOMPSON: So, you know, in my
4 introduction I mentioned that my expertise is to
5 understand how to model air pollution concentrations and
6 interpret the potential for health impacts from
7 exposure. So this is where I will go ahead and say that
8 my expertise is not in determining the relationship
9 between -- or how to set those limits, basically, or how
10 to set what -- what those risk factors would be.

11 It's about how to understand how to model the
12 potential for those concentrations and interpret the
13 modeling based on the limits that other epidemiologists
14 have set. So I am -- I am not as familiar with that
15 literature, but I -- I understand how to interpret it.

16 CHAIR SUINA: Okay. Thank you for that
17 response.

18 And I was getting back to -- I think, to the
19 recommendation of the 1,000 foot, and I think your
20 colleague had mentioned that was really based upon the
21 Colorado rules.

22 From a -- from a health perspective, do you
23 have any comment on the 1,000 foot versus, say, 500 or
24 2,000 or any other incremental -- I think you had
25 mentioned another distance of 2,000.

1 MS. THOMPSON: That's right. And, you know,
2 five -- 500 would be -- would be more protective of
3 human health. Right? But it's a compromise.

4 And so, you know, that also is outside of my
5 expertise is understanding -- or like, you know,
6 understanding those compromises, but I can report on the
7 fact that 500 would be more protective of human health
8 and would, you know, reduce that risk that we -- that I
9 talked about, with respect to benzene and even average
10 exposure of benzene at that 500 mark leading to an
11 increased chance of -- of cancer.

12 CHAIR SUINA: Okay.

13 Madam Hearing Officer, and thank you,
14 Ms. Thompson. That's all I have for now.

15 HEARING OFFICER ORTH: Thank you.

16 The Vice-Chair put in chat that she does not
17 have any questions.

18 I don't know if Member Bitzer is still on the
19 platform.

20 Member Garcia?

21 MEMBER GARCIA: No questions. Thank you.

22 Thank you for your testimony.

23 MS. THOMPSON: Thank you.

24 HEARING OFFICER ORTH: And Member Honker.

25 I'm not sure if he's on the platform. No.

1 All right. Did any of that raise redirect for
2 you, Ms. Paranhos?

3 MS. PARANHOS: Madam Hearing Officer, no
4 redirect for Ms. Thompson, but I did just want to note
5 for the benefit of the Board that EDF Exhibit II is the
6 CDPHE study that Dr. Thompson was referring to in her
7 testimony.

8 HEARING OFFICER ORTH: That's the Colorado
9 study?

10 MS. PARANHOS: Correct. That's the Colorado
11 Public Health and Environment study.

12 HEARING OFFICER ORTH: Okay. Thank you.

13 Thank you very much, Dr. Thompson, for your
14 testimony.

15 MS. THOMPSON: Thank you for the opportunity
16 to talk with you.

17 HEARING OFFICER ORTH: I'm wondering now if we
18 move to Mr. Blewitt.

19 Mr. Rose?

20 MR. ROSE: Madam Hearing Officer, I don't
21 believe we were going to present Mr. Blewitt on this
22 topic.

23 HEARING OFFICER ORTH: Oh. Okay. I have him
24 here, but okay.

25 So then do we move to -- do we move to

1 Professor Villa?

2 MR. PACYNIAK: Madam Hearing Officer?

3 HEARING OFFICER ORTH: Yes.

4 MR. PACYNIAK: If you could give us just a
5 moment, I think we are ready to go, although my
6 co-counsel who is going to be putting on Professor
7 Villa, I think, was putting his child to bed. So I just
8 want to -- if you give me -- if it's possible to have
9 a -- just a few minutes to see if I can get him on.

10 HEARING OFFICER ORTH: Certainly.

11 Let's take a 10-minute break, if that works.

12 Does that work?

13 All right. 7:30.

14 (Proceedings in recess from 7:20 p.m. to
15 7:30 p.m.)

16 HEARING OFFICER ORTH: Good evening, Professor
17 Villa.

18 My name is Felicia Orth, the Hearing Officer.

19 And I understand we're going to move to your
20 testimony.

21 If you would please spell your name for the
22 transcript.

23 MR. VILLA: Yes, Madam Hearing Officer. My
24 name is Clifford J. Villa, last name is spelled
25 V-as-in-Victor-I-L-L-A.

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

4 MR. VILLA: I do.

5 HEARING OFFICER ORTH: Thank you very much.

6 CLIFFORD VILLA

7 (Relating to Topic Order 27)

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

10 DIRECT EXAMINATION

11 BY MR. SHIMANEK:

12 HEARING OFFICER ORTH: Mr. Shimanek.

13 MR. SHIMANEK: Thank you, Madam Hearing
14 Officer.

15 I'd like to go ahead and move Exhibit 6, which
16 is Professor Villa's rebuttal testimony, and Exhibit 7,
17 which is his CV, into evidence.

18 HEARING OFFICER ORTH: Thank you.

19 They are admitted.

20 (Exhibits CCP and NAVA EP 6 and 7 admitted
21 into evidence.)

22 HEARING OFFICER ORTH: And, Mr. Shimanek, your
23 video is breaking up. I'm wondering if, although it's
24 delightful to see you on screen, we may have to -- have
25 to turn off the video.

1 MR. SHIMANEK: I'm going to go ahead and turn
2 it off. I do have rural Internet. So bear with me. I
3 apologize.

4 Okay.

5 Q. Can you please state your name?

6 A. Yes. My name is Clifford J. Villa.

7 Q. And please state on behalf -- on whose behalf
8 you are submitting this rebuttal testimony.

9 A. I am submitting rebuttal testimony on behalf
10 of the Center for Civic Policy and the NAVA Education
11 Project.

12 Q. Did you submit full written rebuttal
13 testimony, and do you adopt it here without changes?

14 A. Yes, I do.

15 Q. Is the Center for Civic Policy and the NAVA
16 Education Project Exhibit 7 an accurate copy of your
17 curriculum vitae?

18 A. Yes, it is.

19 Q. And what is the purpose of your testimony
20 today regarding this matter?

21 A. Three purposes.

22 First, I'm offering rebuttal testimony to
23 changes to NMED's proposed ozone precursor rule that
24 have been submitted by NMOGA and submitted by
25 Mr. Smitherman in his direct testimony.

1 Second, I'm responding to direct testimony
2 offered in support of the proximity LDAR proposals by
3 Hillary Hull, which identifies how a significant number
4 of people from historically marginalized communities
5 live in close proximity to low-producing wells and are
6 at risk with health harms from oil and gas pollution due
7 to this close proximity.

8 Third, I'm responding to both of these
9 proposals and testimony that decreased LDAR specifically
10 could put communities of color at risk. My testimony
11 will note how federal and state regulators have failed
12 historically to protect communities of color and
13 low-income people from environmental harms in places
14 including New Mexico. I will also explain how agencies
15 and boards in New Mexico have legal authorities and
16 duties to prevent such disproportionate harms in the
17 future.

18 HEARING OFFICER ORTH: Professor Villa, you're
19 speaking a little fast, and we're at the end of a long
20 day. If you would just slow down a bit.

21 MR. VILLA: Thank you for the reminder, Madam
22 Hearing Officer.

23 Q. (BY MR. SHIMANEK) Will you please state your
24 relevant education history?

25 A. Yes. I have a bachelor's degree in English

1 and in economics from the University of New Mexico. I
2 also have a law degree from Lewis & Clark Law School in
3 Portland, Oregon.

4 Q. Who is your current employer?

5 A. I am currently a professor of law with tenure
6 at the University of New Mexico School of Law. However,
7 I'm not representing UNM School of Law in my testimony
8 today. Rather, I am testifying today based upon my
9 independent expertise as a scholar in the field of
10 environmental justice.

11 Q. Please state your relevant prior employment
12 history.

13 A. Prior to beginning as a tenure track professor
14 at the University of New Mexico in 2015, I served for
15 more than 20 years as an attorney with the US
16 Environmental Protection Agency in offices of
17 Washington, DC; Denver, Colorado; and Seattle
18 Washington. I also taught as an adjunct professor at
19 Seattle University School of Law.

20 Q. What were your relevant areas of work at the
21 USEPA?

22 A. As an EPA attorney, I worked with nearly all
23 federal pollution control laws administered by the
24 USEPA, including the Clean Air Act, the Clean Water Act
25 and the federal Superfund statute. I addressed concerns

1 regarding hazardous pollutants, including volatile
2 organic compounds such as benzene and toluene.

3 I also focused heavily on incorporating
4 environmental justice concerns into compliance and
5 enforcement, ensuring protections for indigenous,
6 immigrant and low-income communities, for example.

7 Q. Please describe your relevant scholarship,
8 teaching and your broader public engagement as a law
9 professor.

10 A. In general, I teach in the areas of
11 constitutional law and environmental law and the
12 intersection between the two in the field known as
13 environmental justice. This has included teaching
14 environment law, environmental enforcement at both
15 Seattle University and the University of New Mexico. At
16 the University of New Mexico, I also teach a dedicated
17 seminar on environmental justice.

18 I'm also the co-author of a case book on
19 environmental law, and I am the lead author and editor
20 of a textbook on environmental justice that is being
21 adopted by law schools now across the country. I also
22 have several published articles in the field, the field
23 specifically concerning environmental justice.

24 I've also made a number of professional
25 presentations on environmental justice, including a

1 presentation this past summer at the Rocky Mountain
2 Mineral Law Foundation. I made presentations on
3 environmental justice to EPA Region 10, to NMED, and to
4 tribal leaders, to federal judges, among many other
5 audiences.

6 Q. Did you review NMOGA's proposed changes to
7 NMED's provisions for controlling leaks and fugitive
8 emissions in proposed Section 20.2.50.116, including
9 specifically Mr. Smitherman's written testimony related
10 to controlling emissions, equipment leaks and fugitive
11 emissions in the proposed section?

12 A. Yes, I did.

13 Q. What did you notice generally about NMOGA's
14 proposals as they compared to the NMED proposal?

15 A. In general, I noticed that NMOGA recognizes
16 the necessity of additional leak detection and repair
17 inspections for oil and gas facilities. However, NMOGA
18 also proposes to reduce the frequency of LDAR
19 inspections compared to proposals by NMED and also by
20 Center for Civic Policy and NAVA Education Project.

21 Q. Did you review the Center for Civic Policy and
22 the NAVA Education Project's proposed changes to NMED's
23 provisions for controlling emissions equipment leaks and
24 fugitive emissions in proposed Section 20.2.50.116? And
25 if so, what did you notice about the CCP and NAVA EP

1 proposals as they compare to NMED's proposal?

2 A. Yes. I did review these proposals, and I
3 noticed that the CCP and NAVA Education Project proposed
4 to increase the frequency of LDAR inspections for
5 wellhead sites that are within 1,000 feet of occupied
6 buildings.

7 Q. Did you review Hillary Hull's testimony
8 related to this LDAR proximity proposal to increase the
9 frequency of LDAR inspections within 1,000 feet of
10 occupied buildings? And if so, what did you generally
11 notice about Mrs. Hull's testimony related to this LDAR
12 proposal as it relates to the demographic impacts of the
13 proposal?

14 A. Yes. I did review Ms. Hull's testimony, and I
15 notice that Ms. Hull testified that many New Mexicans
16 belonging to historically marginalized social and
17 economic groups live within 1,000 feet of affected
18 wellhead sites, including approximately 2,700 children
19 under the age of five, more than 4,500 adults 65 years
20 of age or older, more than 5,700 individuals who are
21 living in poverty, and some 19,000 people of color,
22 including over 5,800 Native Americans.

23 Q. Did you also review testimony from Lee Ann
24 Hill of PSE Health Energy? And if you did, what did you
25 note generally about Mrs. Hill's testimony?

1 A. I did review Mrs. Hill's testimony, and I
2 noted that she stated that there was a reasonable degree
3 of scientific certainty that living in close proximity
4 to oil and gas facilities results in increased health
5 risks and impacts from elevated air pollution levels,
6 and that these risks would be disproportionately
7 experienced by people who live, work and go to school
8 near oil and gas facilities.

9 Q. What observations did you make based on your
10 review of these materials?

11 A. My overall observations were that there's a
12 substantial number of people from historically
13 marginalized communities who are particularly at risk of
14 health harms from oil and gas infrastructure because of
15 the close proximity to where they live, work and attend
16 school.

17 I also observed that NMOGA's proposal would
18 generally reduce the frequency of inspections for leaks
19 at low potential to emit facilities compared to NMED's
20 proposal. In contrast, CCP and NAVA Education Project
21 proposal would increase the frequency of inspections of
22 facilities that are in close proximity to where New
23 Mexicans live, work and attend school.

24 Q. Can you describe what is meant by
25 environmental justice?

1 A. Yes.

2 Madam Hearing Officer, may I share my screen
3 at this time?

4 HEARING OFFICER ORTH: Yes.

5 THE REPORTER: And I'd ask you to slow down
6 again, please.

7 MR. VILLA: Thank you. I appreciate that
8 important feedback.

9 Can you all see a screen that says In the
10 Matter of Proposed New Regulation? Whoops. Yes?

11 MR. SHIMANEK: Yes.

12 MR. VILLA: Okay. Thank you.

13 Could you repeat the question, please?

14 Q. (BY MR. SHIMANEK) Can you describe what is
15 meant by environmental justice?

16 A. Yes. Turning to the next slide, you see a
17 definition here that is maintained currently by the New
18 Mexico Environment Department. It states that
19 environmental justice means the fair treatment and
20 meaningful involvement of all people, regardless of
21 race, color, national origin or income, with respect to
22 the development, implementation and enforcement of
23 environmental laws, regulations and policies.

24 This definition by the New Mexico Environment
25 Department repeats verbatim the definition that has been

1 maintained by the US Environmental Protection Agency
2 since at least the year 2000.

3 Q. How do you believe this definition would apply
4 to the present proceeding?

5 A. Well, three of the important elements of the
6 definition of environmental justice are underlined in
7 this slide.

8 People in this definition applies to all
9 people. It includes people of color, such as the
10 estimated 19,000 people, including 5,800 Native
11 Americans, in close proximity to wellhead sites. People
12 also includes elderly people, young people, and people
13 with preexisting health conditions who may be more
14 vulnerable to poor air quality.

15 Meaningful involvement in this definition
16 means that members of the interested and affected
17 public, including members of CCP and NAVA Education
18 Project, cannot only provide public comments on a
19 proposal, but have a genuine opportunity to influence
20 the final outcome of this proceeding.

21 And finally, fair treatment means in the end
22 that no group of people, such as low-income or
23 indigenous people, within 1,000 feet of a wellhead will
24 suffer disproportionate harms as a consequence of the
25 regulated activity.

1 Q. To your knowledge, has environmental injustice
2 been a real problem in New Mexico?

3 A. Yes.

4 Q. Can you give us some examples?

5 A. Yes. For example, in Espanola there is a
6 Superfund site known as the North Railroad Avenue Plume.
7 It is consisting of chlorinated solvents that are in the
8 groundwater from an old dry cleaner. The plume was
9 discovered in 1996, fully 25 years ago, and still
10 contaminates the groundwater beneath downtown Espanola
11 today. In that community, it's estimated that it's
12 93 percent people of color, including members of the
13 Santa Clara Pueblo.

14 In the village of Questa, north of Taos, the
15 groundwater is contaminated by what is known today as
16 the Chevron Questa Superfund site. Groundwater
17 contamination reaches beneath the entire village and
18 has, in fact, affected the health of many villagers,
19 according to some estimates. The Village of Questa is
20 80 percent nationally ranked for people of color.

21 In the South Valley of Albuquerque, where my
22 family is from, it is heavily immigrant and Latino. It
23 has multiple Superfund sites, multiple sources of
24 industrial air pollution. And in the South Valley of
25 Albuquerque, life expectancy is 10 years or less than

1 other neighborhoods in Bernalillo County.

2 And a final example comes from the Grants
3 Mining District, where there are elevated cases of lung
4 cancer among Native Americans associated with
5 occupational and residential exposures due to historic
6 uranium mining.

7 Q. In your expert opinion, does the Environmental
8 Improvement Board have the legal authority to consider
9 disparate impacts of pollution in promulgating
10 regulations under the Air Quality Control Act?

11 A. Yes. In my analysis, the Environmental
12 Improvement Board must consider and give weight to the
13 disparate impacts of pollution in promulgating
14 regulations under the Air Quality Control Act, under the
15 text of statutes and relevant case law, including those
16 indicated in the slide on the screen.

17 Just to move forward, so the authority of the
18 EIB to address concerns for environmental justice is
19 amply demonstrated in this case known as Colonias
20 Development Council versus Rhino Environmental Services,
21 and it demonstrates how New Mexico agencies have both a
22 legal authority and a legal duty to take environmental
23 justice into account in their agency decisions.

24 In this case, decided in 2005, the New Mexico
25 Supreme Court directed the Secretary of NMED to consider

1 public testimony opposing a proposed landfill even if
2 the public comments concerned issues of public health
3 and welfare beyond the technical requirements for a
4 landfill.

5 The Rhino case specifically concerned solid --
6 the New Mexico Solid Waste Act. However, per an opinion
7 from the New Mexico Attorney General in 2008, Rhino also
8 demonstrates that the same result could and should be
9 reached under the Air Quality Control Act.

10 The Attorney General observed in writing that
11 the Air Quality Control Act, like the Solid Waste Act,
12 is replete with references to public input. The Air
13 Quality Control Act also provides sufficient statutory
14 authorization, like the Solid Waste Act, for the
15 promulgation of regulations involving the consideration
16 of public health and welfare.

17 The Attorney General concluded that therefore,
18 pursuant to the Rhino roadmap, the promulgation of
19 regulations under the Air Quality Control Act, quote,
20 will allow Board staff in the future to assign weight to
21 public testimony regarding environmental justice
22 principles.

23 Taking just a closer look at the text of the
24 Air Quality Control Act, it says, among other things,
25 that the EIB, quote, shall give weight it deems

1 appropriate to all facts and circumstances. It also
2 says that the EIB must consider the, quote, character
3 and degree of injury to or interference with health and
4 welfare.

5 Q. Can you expand on what character and degree of
6 injury means based on how the phrase has been used and
7 understood in other contexts?

8 A. Yes. Character and degree of injury to health
9 and welfare must include consideration of whether a
10 proposed regulation or activity would result in
11 disparate harms to low-income communities or communities
12 of color.

13 Just skipping forward a couple of slides,
14 there is a recent case that I mentioned in my rebuttal
15 testimony, Friends of Buckingham versus Virginia Air
16 Pollution Control Board, decided just last year by the
17 Fourth Circuit Court of Appeals. In this case, the
18 court looked at language very similar to that in New
19 Mexico that required the State of Virginia to consider
20 the character and degree of injury, when the Virginia
21 Air Pollution Control Board approved permitting for a
22 compressor station that was on a proposed pipeline.

23 The court concluded that the Virginia Air
24 Pollution Control Board had failed to satisfy the
25 requirement for evaluating character and degree of

1 injury when it failed to accurately determine the
2 demographics of the community and failed to determine
3 the actual threats to that community posed by the
4 proposed facility.

5 Q. Beyond the Air Quality Control Act, are there
6 any other legal authorities that help establish the
7 Board's duty to consider environmental justice?

8 A. Yes. Another of those legal authorities
9 appears on the slide here. That is the Civil Rights Act
10 of 1964, Title VI. Title VI of the Civil Rights Act
11 applies to any program or activity receiving federal
12 financial assistance.

13 The New Mexico Environment Department is a
14 program that receives federal financial assistance, and
15 so this provision of the Civil Rights Act applies to
16 NMED activities. And for any program that receives this
17 federal financial assistance, the statute provides that
18 no person in the United States shall, on the ground of
19 race, color or national origin, be excluded from
20 participation in, be denied the benefits of, or be
21 subjected to discrimination.

22 Now, this statute is also elaborated upon in a
23 series of implementing regulations. The regulations
24 implementing the statute, including regulations
25 promulgated by the EPA, provide that -- prohibit

1 agencies who receive federal aid from, quote, using
2 criteria or methods of administering its program or
3 activity which have the effect of subjecting individuals
4 to discrimination because of their race, color, national
5 origin or sex, or have the effect of defeating or
6 substantially impairing accomplishments of the
7 objectives of the program.

8 So the regulations apply not only to
9 discriminatory acts, but also acts that end up having
10 some sort of discriminatory effect.

11 Now, enforcement of the statute is not
12 available directly in federal court for alleged
13 violation of the statute and its regulations. Parties
14 who complain can write a admin -- file an administrative
15 complaint with the USEPA. There have been, in fact, a
16 number of administrative complaints filed against NMED
17 and other agencies, including the City of Albuquerque,
18 alleging violations of the statute and regulations.

19 For example, in the year 2002, a Title VI
20 complaint was filed against NMED for alleged
21 discriminatory effect in the permitting of a hazardous
22 waste facility east of Roswell. The administrative
23 complaint was finally resolved through an informal
24 resolution agreement entered 15 years later, in 2017,
25 which provides some indication of how serious some of

1 these actions may be considered.

2 Q. Do you have any other legal authorities?

3 A. Yes. Another legal authority arises under
4 executive orders requiring agencies, federal and state,
5 to take environmental justice considerations into
6 account in their activities.

7 In 1994, President Bill Clinton signed
8 Executive Order 12898, which, among other things,
9 required all federal agencies to ensure that their
10 programs, plans and activities do not have the effect of
11 excluding persons from the benefits of the agency's
12 actions and subjecting them to discrimination. Now,
13 this executive order applies to all federal agencies.

14 There is also an executive order signed in
15 2005 by New Mexico Governor Bill Richardson that
16 provides equal obligations for New Mexico agencies and
17 boards to also pursue environmental justice.

18 Q. What do these executive orders require?

19 A. Well, looking at just a few of the provisions
20 from the New Mexico executive order on environmental
21 justice, looking at paragraph 1, it says that all
22 cabinet level departments and boards and commissions
23 that are involved in decisions that may affect
24 environmental quality and public health shall provide
25 meaningful opportunities for involvement to all people

1 regardless of race, color, ethnicity, religion, income,
2 or education level.

3 Paragraph 3, indicated here, notes that all
4 relevant cabinet level departments and boards and
5 commissions shall utilize available environmental and
6 public health data to address impacts in low-income
7 communities and communities of color.

8 And we have seen a number of environmental and
9 public health data that has been discussed in testimony
10 this afternoon and this evening, and under the executive
11 order it would require all cabinet level departments and
12 boards to take that data into account in making
13 decisions concerning environmental and industrial
14 facilities.

15 Q. Are violations of these executive orders
16 directly enforceable?

17 A. Violations of the executive orders are not
18 directly enforceable. However, if you look at paragraph
19 7 here on the slide, you find this sort of saving clause
20 in both the federal and state executive orders on
21 environmental justice. This one says, from the State of
22 New Mexico, nothing in this executive order is intended
23 to create a private right of action to enforce any
24 provision of this order or any action plan developed
25 pursuant to this order.

1 So the orders themselves do not give rise to
2 an enforceable action.

3 Q. So what is the legal significance of these
4 executive orders today?

5 A. Well, as indicated in the case that I already
6 mentioned, Friends of Buckingham versus Virginia Air
7 Pollution Control Board, even though the executive
8 orders themselves are not directly enforceable, courts
9 have found that the executive orders today establish
10 enforceable standards of conduct for both federal and
11 state agencies.

12 In a forthcoming article to be published by
13 NYU, I trace the development of this robust body of case
14 law, including Friends of Buckingham, decided last year
15 by the Fourth Circuit Court of Appeals. The DC Circuit
16 through many decisions, including concerning the Dakota
17 Access Pipeline, has also affirmed these legal
18 principles. Most recently, just last month, another
19 pipeline project proposed in Texas was struck down based
20 upon failure to conduct a proper environmental justice
21 analysis.

22 And finally, all of this leads today to the
23 conclusion reached last year by the Fourth Circuit that
24 environmental justice is not merely a box to be checked.
25 Based upon the case law over almost 30 years now, we can

1 see that environmental justice is no longer a theory.

2 It's not a fad. It's not just a good idea.

3 Environmental justice is now the law.

4 And as a teacher of environmental justice, I
5 want to help people, including members of the EIB,
6 understand that law and fulfill their statutory duty to
7 serve the public interest for all New Mexicans.

8 Q. Do you have any recommendations to the Board
9 for these regulations based on environmental justice
10 principles and the testimony that you've reviewed?

11 A. Yes. I would recommend that the Board reject
12 any proposals for changes to the regulation that would
13 have the potential for -- to disparately harm
14 marginalized populations, particularly communities of
15 color. I would also recommend that the Board accept any
16 reasonable proposals that would further protect
17 marginalized populations from health harms.

18 I have reviewed the proposals for changes to
19 the regulation from NMOGA, and I see they include
20 proposals to subject low potential to emit wells to less
21 frequent leak detection inspections. I also understand
22 from testimony by Hillary Hull that many people of
23 color, including Native Americans, live in close
24 proximity to such wells.

25 I therefore recommend that in keeping with

1 environmental justice principles the EIB reject
2 proposals for reduced inspections of wellhead proposals.

3 I've also reviewed the proposals from the
4 coalition of nonprofit organizations, including CCP and
5 NAVA Education Project, that would require more frequent
6 leak detection and repair for wellhead sites within
7 1,000 feet of occupied buildings. And I have reviewed
8 the rebuttal testimony from Lee Ann Hill stating that
9 there's a reasonable degree of scientific certainty that
10 living in close proximity to oil and gas facilities
11 results in increased health risks.

12 Because many of the people who live in close
13 proximity to these wells are people of color, I
14 therefore recommend the EIB adopt those provisions in
15 keeping with the principles of environmental justice.

16 This concludes my rebuttal testimony.

17 MR. SHIMANEK: Madam Hearing Officer, this
18 concludes the summary testimony of Professor Cliff
19 Villa, and we now open him up for cross-examination.

20 HEARING OFFICER ORTH: Thank you very much,
21 Professor Villa and Mr. Shimanek.

22 If you would stop sharing your screen
23 momentarily, Professor.

24 MR. VILLA: Yes. Hello.

25 HEARING OFFICER ORTH: Thank you.

1 If there is any party -- oh, I think I see
2 Mr. de Saillan -- who wishes to question Professor
3 Villa, turn on your screen.

4 We'll start with you, Mr. de Saillan.

5 MR. DE SAILLAN: Thank you, Madam Hearing
6 Officer.

7 Can you hear me okay?

8 MR. VILLA: Yes, sir. Thank you.

9 MR. DE SAILLAN: Okay.

10 CROSS-EXAMINATION

11 BY MR. DE SAILLAN:

12 Q. Good evening, Professor Villa.

13 Just for the record, my name is Charles de
14 Saillan, and I'm an attorney representing the New Mexico
15 Environmental Law Center.

16 I just have a couple quick questions for you.

17 You talked about the Rhino decision in your
18 testimony?

19 A. Yes.

20 Q. And you mentioned that there was an Attorney
21 General opinion that applied the Rhino -- the holding of
22 the Rhino decision to the Air Quality Control Act? Is
23 that -- was that your testimony?

24 A. Yes.

25 Q. Are you familiar with a New Mexico State

1 District Court case that similarly applied the holding
2 of the Rhino decision to the Air Quality Control Act?

3 A. I may, although I'm not sure I'm thinking of
4 the one you are.

5 Q. Okay.

6 Well --

7 A. Can you provide a little more information?

8 Q. I'm thinking in particular of a case last
9 year, SouthWest Organizing Project versus
10 Albuquerque-Bernalillo County Water Quality Control
11 Commission.

12 A. Yes.

13 Q. Or -- excuse me -- Air Quality Control Board.

14 A. Um-hum. Yes.

15 Q. Could you elaborate on that a little bit?

16 A. Well, I believe the case arose from the
17 Albuquerque South Valley, which I described earlier in
18 my testimony, which is a community that is experiencing
19 multiple forms of pollution. It may be that the
20 pollution is coming from facilities that are subject to
21 permits and may even be that the pollution is coming
22 from facilities that are in compliance with applicable
23 permits.

24 The question there is -- and is often one of
25 cumulative impacts on those communities. Again that

1 community is very low-income and very diverse, heavily
2 people of color, and, of course, they have concerns
3 about protecting their own health even if those
4 facilities are in compliance with their individual
5 permits.

6 MR. DE SAILLAN: Thank you, Professor Villa.
7 That's all the questions I have.

8 HEARING OFFICER ORTH: All right. Thank you,
9 Mr. de Saillan.

10 Mr. Rose?

11 MR. ROSE: Just a couple questions for
12 clarification.

13 CROSS-EXAMINATION

14 BY MR. ROSE:

15 Q. Professor Villa, my understanding is that the
16 Environmental Law Clinic is representing the parties
17 you're testifying on behalf of in this hearing; is that
18 correct?

19 A. Yes. That's my understanding.

20 Q. And do you have an attorney-client
21 relationship with those parties, or is your testimony
22 independent of that representation?

23 A. I am not in this capacity representing the
24 clients in this case. I do in my faculty capacity
25 rotate into that clinic, although I've had no direct

1 engagement as an attorney in this particular proceeding.

2 Q. And with respect to Mr. de Saillan's comment,
3 are you aware of the Court of Appeals case dealing with
4 SouthWest Organizing Project's challenge to an air
5 permit with the City of Albuquerque and rejection -- I
6 believe rejection of the cumulative impacts requirement
7 that in that case the Albuquerque Air Board considered?

8 A. Yes. I am familiar with that.

9 Q. And -- and that was a permitting decision,
10 correct?

11 A. I believe it was.

12 Q. And this is a rulemaking decision --
13 rulemaking matter?

14 A. Yes. That's my understanding.

15 Q. And are -- and are you testifying that this
16 Board has the authority as a matter of state law to
17 require -- to impose requirements that are more
18 stringent than necessary to -- to meet the federal
19 ambient air quality standard for ozone?

20 A. My testimony is that this Board has authority
21 and an affirmative duty to protect the health of all New
22 Mexicans. The language in the definition of
23 environmental justice is actually all people, and
24 whatever it may take to protect those people, that that
25 is the requirement of environmental justice.

1 Q. And are you recommending to the Board that --
2 that if the notice of this proceeding did not include
3 some of the language you're talking about or notice of
4 that, that it's appropriate for the Board to, in fact,
5 act without -- without giving notice to others who might
6 be affected?

7 A. I am not making any proposal for a rulemaking
8 that's not already stated in my written testimony.

9 Q. And do you know whether -- is it your opinion
10 that the notice of this proceeding allows the Board to
11 consider those proposals?

12 A. I could read the notice of this proceeding.
13 I -- like anybody else. I understand the notice of the
14 proceeding applies to emission standards for volatile
15 organic compounds and oxides of nitrogen for oil and gas
16 production, processing and transmission sources.

17 Q. And that's -- and if you read the rest of the
18 notice, I think it goes on to say it implements a
19 provision of the state statute related to assuring that
20 the federal ozone NAAQS is met.

21 A. I'm sure that notice will speak for itself.

22 Q. And I was just wondering whether your opinion
23 included an examination of the notice and an opinion on
24 whether or not the notice that this Board is operating
25 under is sufficient to include the proposals you

1 testified on.

2 A. My testimony is really related to the
3 authority and duty of this Board to serve the interests
4 of environmental justice and protecting all people in
5 the State of New Mexico.

6 Q. And is it your opinion that the federal ozone
7 National Ambient Air Quality Standard does not somehow
8 affect all people equally?

9 A. Well, we've heard a good bit of testimony
10 today that proximity to sources of air pollution can
11 have a significant effect on human health. We've heard
12 testimony from Dr. Thompson and others who have
13 testified to that point. I am not here to testify
14 specifically about medical issues. But I think we've
15 heard testimony to that effect today.

16 Q. And again is it your opinion that this Board
17 has the authority to adopt requirements more stringent
18 than the federal National Ambient Air Quality Standards
19 in this proceeding?

20 A. Well, I think one thing we know, as we've
21 heard today, is that the NAAQS for criteria pollutants
22 have become more stringent over time. And in fact, I
23 know that there have been a number of concerns where
24 people have referred to a national standard as
25 suggesting that that ensures compliance with protection

1 of public health.

2 The Friends of Buckingham case was actually a
3 case directly on point. It appeared that the particular
4 county in Virginia was in compliance with the NAAQS.
5 However, people who lived right next to the proposed
6 facility could have been certainly threatened because
7 they might have been breathing more polluted air than
8 would have been detected when you apply the NAAQS over a
9 large area like an air shed.

10 Q. Do you know whether or not there's a proposal
11 before this Board to adopt a standard for ozone more
12 stringent than the NAAQS?

13 A. I'm not aware of that.

14 MR. ROSE: Thank you, Madam Hearing Officer.
15 I have no further questions.

16 HEARING OFFICER ORTH: All right. Thank you.

17 Let me invite any other party with a question
18 of Professor Villa to turn on their camera.

19 No?

20 I'll turn then to questions from the Board.

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

24

25

1 EXAMINATION

2 BY THE BOARD:

3 HEARING OFFICER ORTH: Madam Chair, do you
4 have questions of Professor Villa?

5 CHAIR SUINA: Thank you, Madam Hearing
6 Officer. And I think I just want to clarify.

7 Good afternoon -- or good evening, Professor
8 Villa.

9 Appreciate your testimony and thank you for
10 staying with us at this late hour.

11 MR. VILLA: Thank you.

12 CHAIR SUINA: Kind of to follow up on
13 Mr. Rose's line of questioning, I think he was talking
14 about not more stringent than the NAAQS -- federal EPA
15 NAAQS levels, but am I understanding in terms of the
16 proposals in -- that have been put forth would be more
17 stringent in terms of, say, the leak -- the LDAR
18 proposed requirements that would accomplish -- or would
19 address some of the environmental justice concerns?

20 MR. VILLA: Yes. Thank you for the question,
21 Madam Chair.

22 So I am not proposing any changes to a
23 national standard that is set by EPA. But the National
24 Ambient Air Quality Standards are really measured as a
25 measurement of air pollution in the ambient air and --

1 and measured over large geographic areas like a county
2 or an air shed.

3 As I understand the proposal that we're
4 discussing in this proceeding, it's not about changing a
5 national standard. It's about how you achieve that
6 national standard. And one way to achieve it is by
7 preventing emissions of air pollutants, specifically the
8 ones at issue in this case, so that you don't exceed
9 those national standards.

10 CHAIR SUINA: Thank you for that response, and
11 I -- if I can just kind of clarify.

12 So some of the proposals, I think, that you
13 mentioned here your review of, in close proximity --
14 some of the close proximity proposals, would that
15 address some of the environmental justice concerns?

16 MR. VILLA: Yes. And I appreciate the
17 question, too.

18 I mean, the NAAQS may be one standard to -- to
19 consider in protecting human health. Another standard
20 to consider is just the actual absolute pollutants that
21 people are breathing if, for example, they live right
22 next to a facility. The national standard won't tell
23 you whether or not health of any individual family or
24 household is being protected. What will tell you that
25 is monitoring and -- and inspections of the actual

1 emissions from an individual facility.

2 CHAIR SUINA: Okay. Thank you so much,
3 Professor Villa.

4 And, Madam Chair, that's all I have for now.

5 MR. VILLA: Thank you.

6 HEARING OFFICER ORTH: Thank you.

7 Vice-Chair Trujillo Davis.

8 VICE-CHAIR TRUJILLO DAVIS: I don't have any
9 questions at this time. I'd just like to thank
10 Mr. Villa for taking the time to speak with us.

11 MR. VILLA: Thank you, Madam Vice-Chair.

12 HEARING OFFICER ORTH: Thank you.

13 Member Bitzer?

14 MEMBER BITZER: I have no questions. Thank
15 you.

16 HEARING OFFICER ORTH: Thank you.

17 Member Garcia?

18 I'm not sure that I see her anymore.

19 And Member Honker.

20 I think -- all right.

21 Let's see. Does any of that prompt redirect
22 for you, Mr. Shimanek?

23 MR. SHIMANEK: No. I believe that would
24 conclude all our testimony tonight. Thank you.

25 HEARING OFFICER ORTH: All right. Thank you.

1 Thank you very much, Professor Villa and
2 Mr. Shimanek.

3 MR. VILLA: Thank you, Madam Hearing Officer.
4 Good night.

5 HEARING OFFICER ORTH: Good night.

6 Ms. Katz, we apparently do not have
7 Mr. Blewitt testifying on this topic, and we don't have
8 Ms. Hill until tomorrow morning.

9 I'm wondering if there's anything further
10 tonight from Ms. Kuehn or if you want to wait.

11 MS. KATZ: I think that we can -- I'd like to
12 just put Ms. Kuehn -- Ms. Kuehn and Mr. Palmer up to try
13 to wrap up our case this evening.

14 HEARING OFFICER ORTH: All right.

15 MS. KATZ: It's not very much.

16 HEARING OFFICER ORTH: All right. Thank you.

17 MS. KATZ: All right.

18 ELIZABETH BISBEY-KUEHN and BRIAN PALMER

19 (Relating to Topic Order 27 continued)

20 having been first duly sworn or affirmed, were
21 examined and testified further as follows:

22 DIRECT EXAMINATION

23 BY MS. KATZ:

24 MS. KATZ: Okay. So beginning with Ms. Kuehn,
25 what is the Department's response to the environmental

1 NGOs' proposal for increased leak monitoring at wells
2 located near occupied structures?

3 MS. BISBEY-KUEHN: The Department supports the
4 proposal, and we note that EDF has put on evidence
5 demonstrating health impacts based on proximity, and
6 that Colorado has adopted similar provisions in their
7 Regulation 7, and the Department believes that this is
8 the right thing to do, and we think that industry should
9 agree to the proposal.

10 MS. KATZ: Thank you.

11 And moving to Oxy's testimony, what is the
12 Department's position on -- regarding exempting
13 satellite facilities from the LDAR requirements as
14 proposed by Oxy?

15 MS. BISBEY-KUEHN: The Department does not
16 agree that satellite facilities should be exempt from
17 the LDAR requirements. Oxy did not provide any
18 emissions data on those types of facilities, and NMED
19 was unable to determine the implications of exempting
20 those types of facilities. If this is a low-emitting
21 facility, the rule already provides for a reduced LDAR
22 frequency based on PTE.

23 MS. KATZ: Thank you.

24 And so moving to NMOGA's testimony,
25 Mr. Smitherman stated that the AVO requirements in the

1 Oil Conservation Division rule do not align with the
2 Department's AVO requirements in its proposed rule.

3 What is your response to that statement?

4 MS. BISBEY-KUEHN: The Department's proposal
5 requires weekly and monthly AVO inspections depending on
6 a facility's oil or gas throughput. OCD's regulation
7 requires weekly and monthly AVO inspections based on gas
8 throughput. So these rules are aligned for gas
9 throughput, and it was appropriate for OCD to base their
10 requirement on gas throughput because that -- the intent
11 of that rule is to reduce the waste of gas.

12 It is not appropriate to delete oil throughput
13 from this draft rule, as that would exempt AVO
14 inspections of those wells that are primarily
15 oil-producing wells with low natural gas production.
16 Oil wells with low gas production are sources of VOC
17 emissions, and the purpose of the AVO inspection is to
18 find and fix those sources of leaks, of leaking VOC
19 emissions.

20 Thus it is not appropriate to strike the oil
21 throughput threshold from this requirement.

22 MS. KATZ: Thank you.

23 Mr. Smitherman said that NMOGA would be happy
24 to gather cost information from New Mexico operators
25 that would be representative of actual New Mexico

1 operations.

2 Did the Department send out a survey to
3 operators following the methane advisory panel process
4 in order to gather this type of New Mexico-specific
5 data?

6 MS. BISBEY-KUEHN: Yes.

7 MS. KATZ: And what was the response rate to
8 that survey?

9 MS. BISBEY-KUEHN: Zero response.

10 MS. KATZ: Did NMED propose the LDAR
11 frequencies that are currently before the Board on May 6
12 with its petition for rulemaking?

13 MS. BISBEY-KUEHN: Yes.

14 MS. KATZ: And could NMOGA have collected the
15 information from its members and provided it for the
16 Board's consideration over the past four-and-a-half
17 months?

18 MS. BISBEY-KUEHN: Yes.

19 MS. KATZ: Regarding Mr. Smitherman's
20 suggestion that NMED should allow compliance with the
21 federal requirements to suffice, if those
22 requirements -- regarding that statement, if those
23 requirements were sufficient, would we be seeing the
24 rising ozone levels that we are?

25 MS. BISBEY-KUEHN: No.

1 MS. KATZ: And is it necessary to have more
2 stringent state rules to address that issue as
3 authorized by the statute?

4 MS. BISBEY-KUEHN: Yes.

5 MS. KATZ: Thank you.

6 And turning to Mr. Palmer.

7 Mr. Smitherman characterized ERG's analysis
8 regarding LDAR -- the LDAR provisions as having errors.

9 In any of his direct or rebuttal, did
10 Mr. Smitherman identify any actual errors in the NMED
11 and ERG methodology?

12 MR. PALMER: No, he did not. The NMED
13 analysis used the federal EPA's Control Technique
14 Guideline analysis that was published in 2016 and is
15 still the guidance offered to states to develop rules
16 for existing sources of VOC in the oil and gas industry.

17 MS. KATZ: Thank you.

18 And does the CTG present incremental costs for
19 different LDAR frequencies or recommend that states
20 evaluate incremental costs?

21 MR. PALMER: No, it does not.

22 MS. KATZ: Thank you.

23 That is all I have on the surrebuttal.

24 HEARING OFFICER ORTH: Thank you, Ms. Kuehn,
25 Mr. Palmer and Ms. Katz.

1 If there are any parties with questions of the
2 Environment Department panel --

3 I see you, Mr. Rose.

4 MR. ROSE: Madam Hearing Officer, my question
5 is actually more for counsel than for the witnesses, and
6 I just wanted some clarification that -- that I think
7 Ms. Kuehn testified about the proposals being more
8 stringent than federal requirements, and I was curious
9 as to how the Department saw procedurally this Board was
10 going to look at that and whether it was going to have
11 a -- this hearing or a separate hearing that would be
12 directed to the determination required by the state
13 statute that -- that based on substantial evidence after
14 notice and public hearing, that the proposed rules will
15 be more protective of public health and the environment.

16 Is it -- is the Department's position that
17 this proceeding satisfies that or that some separate
18 proceeding specific to the proposals would be necessary?

19 MS. KATZ: Mr. Rose, we are not relying
20 specifically on that provision, and the provision in
21 what is currently Paragraph C of 74-2-5 authorizes the
22 Board to adopt more stringent regulations to address
23 rising ozone concentrations in areas of the state that
24 are exceeding 95 percent of the NAAQS.

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

1 HEARING OFFICER ORTH: Thank you. Oops.
2 Are there any other parties with questions of
3 the Department?
4 No, not seeing anyone else.
5 I turn to questions from the Board.
6 While I'm doing that, if you're an attendee on
7 the platform and have a question, reach out through the
8 chat.
9 Madam Chair, do you have a question?
10 CHAIR SUINA: Thank you, Madam Hearing
11 Officer.
12 I just want to thank our witnesses for
13 sticking with us and Ms. Katz for hanging in there.
14 I have no questions at this time.
15 HEARING OFFICER ORTH: Thank you.
16 Vice-Chair Trujillo Davis.
17 VICE-CHAIR TRUJILLO DAVIS: I want to echo
18 Member Suina's sentiments there and thank you.
19 I don't have any questions right now.
20 HEARING OFFICER ORTH: All right. Thank you.
21 Member Bitzer?
22 MEMBER BITZER: No questions. Thank you.
23 HEARING OFFICER ORTH: Thank you very much.
24 Thank you, Ms. Katz, Ms. Kuehn and Mr. Palmer.
25 I believe that completes as much of the topic

1 as we can this evening, and we'll hear from Ms. Hill in
2 the morning.

3 So -- wait. Ms. -- oh, Ms. Fox.

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

5 We were wondering if we could be heard on
6 Mr. Rose's objections to our exhibits tomorrow morning
7 before Ms. Hill goes on. She -- you know, they object
8 to a number of our exhibits and testimony, and she is
9 one of them, and we would like to put this objection to
10 rest.

11 HEARING OFFICER ORTH: Is 8:30 okay for the
12 lawyers again? Yeah?

13 I see Ms. Katz nodding. Ms. Fox.

14 Let's see. Mr. Rose?

15 MR. ROSE: Madam Hearing Officer --

16 HEARING OFFICER ORTH: Mr. Rose?

17 MR. ROSE: Yes. I'm getting there. I'm just
18 slow at this time of night.

19 I thought we put the issue to bed and that
20 we'd address it in our posthearing submittals, but I can
21 certainly make the same argument, and as I think I've
22 responded to Ms. Fox, if -- we've stipulated as to the
23 admissibility subject to objection. If they want you to
24 rule on the objection, I -- if you rule against me, I'm
25 going to raise it again in posthearing submittals

1 anyway.

2 So I don't think that we gain anything in
3 terms of time or particularly in finishing this hearing
4 by doing it that way, but I can certainly do that if
5 that's appropriate.

6 HEARING OFFICER ORTH: All right. So,
7 Mr. Rose, you know I've been very careful for about 20
8 years now not to make recommendations to boards or
9 commissions on the merits of a petition, but I guess I
10 feel like I would still like an opportunity to make
11 recommendations on the admissibility of evidence.

12 So let's -- let's go at 8:30. And --

13 MS. FOX: Thank you.

14 HEARING OFFICER ORTH: Let's see. Vice-Chair
15 Davis, I'm sorry. Do you have a question you want to
16 put on the record?

17 No. Okay.

18 I think we're done for this evening, then.

19 Thank you, all, very much for hanging in there
20 with us, and I'll be on the call with the lawyers at
21 8:30.

22 Good night.

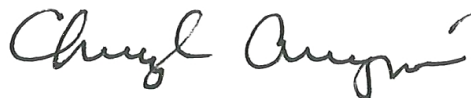
23 (Proceedings adjourned at 8:21 p.m.)

24

25

1 STATE OF NEW MEXICO)
2) ss.
3 COUNTY OF BERNALILLO)
4
5

6 I, CHERYL ARREGUIN, the officer before whom the
7 foregoing proceedings was taken, do hereby certify that
8 I personally recorded the proceedings by machine
9 shorthand; that said transcript is a true record of the
10 proceedings; that I am neither attorney nor counsel for,
11 nor related to or employed by any of the parties to the
12 action in which this proceeding is taken, and that I am
13 not a relative or employee of any attorney or counsel
14 employed by the parties hereto or financially interested
15 in the action.

16 
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20 My Commission Expires: 12/12/23
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