

1 STATE OF NEW MEXICO ENVIRONMENTAL IMPROVEMENT BOARD 2 No. EIB 21-27(R) 3 4 IN THE MATTER OF PROPOSED NEW REGULATION, 20.2.50 NMAC - Oil and Gas Sector - 5 Ozone Precursor Pollutants 6 7 8 TRANSCRIPT OF PROCEEDINGS 9 10 BE IT REMEMBERED that on the 20th day of 11 September, 2021, this matter came on for hearing before 12 FELICIA ORTH, Hearing Officer, virtually through Cisco 13 Webex Meetings video conferencing, commencing at 9:00 a.m. 14 15 16 17 18 19 20 REPORTED BY: THERESA E. DUBOIS, RPR, CCR #29 Albuquerque Court Reporting Service, LLC 21 3150 Carlisle Boulevard, Northeast Suite 104 22 Albuquerque, New Mexico 87110 (505) 806-1202 23 abqcrs@gmail.com 24 25	3 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, ESQ. BRANDON CURTIS, ESQ 4 JORDAN HISER & JOY, PLC 5080 North 40th Street Suite 245 5 Phoenix, Arizona 85024 (480)505-3900 6 ehiser@jhjlawyers.com bcurtis@jhjlawyers.com 7 DALVA L. MOELLENBERG, ESQ. 8 GALLAGHER & KENNEDY, P.A. 9 1239 Paseo de Peralta Santa Fe, New Mexico 87501 10 (505)982-9523 dlm@gknet.com 11 For the Conservation Votes New Meido, Dine C.A.R.E., 12 Earthworks, Natural Resources Defense Council, San Juan Citizens Alliance, Sierra Club, and 350 New Mexico 13 ("Clean Air Advocates"): 14 TANNIS FOX, ESQ. WESTERN ENVIRONMENTAL LAW CENTER 15 409 East Palace Avenue, #2 Santa Fe, New Mexico 87501 16 (505)629-0732 fox@westernlaw.org 17 DAVID R. BAAKE, ESQ. BAAKE LAW LLC 18 2131 North Main Street Las Cruces, New Mexico 88001 19 (575)343-2782 david@baakelaw.com 20 For Environmental Defense Fund: 21 ELIZABETH DELONE PARANHOS, ESQ. DELONE LAW INC. 22 1555 Jennine Place Boulder, Colorado 80304 23 (303)442-0610 elizabeth@delonelaw.com 24 25
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6	8
1 A P P E A R A N C E S (Continued) 2 For Oxy USA Inc.: 3 J. SCOTT JANOE, ESQ. 4 BAKER BOTTS LLP 5 910 Louisiana Street 6 Houston, Texas 77002 7 (713)229-1421 8 scott.janoel@bakerbotts.com 9 For Gas Compressor Association: 10 JEFFREY HOLMSTEAD, ESQ. 11 TIM WILKINS, ESQ. 12 WHIT SWIFT, ESQ. 13 BRACEWELL LLP 14 111 Congress Avenue 15 Suite 2300 16 Austin, Texas 78701 17 (512)472-7800 18 jeff.holmstead@bracewell.com 19 tim.wilkins@bracewell.com 20 whit.swift@bracewell.com 21 STUART R. BUTZIER, ESQ. 22 CHRISTINA C. SHEEHAN, ESQ. 23 MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A. 24 500 Fourth Street, Northwest, Suite 1000 25 Albuquerque, New Mexico 87102 (505)848-1800 srb@modrall.com ccs@modrall.com For Kinder Morgan, Inc., and its subsidiaries and affiliates, El Paso Natural Gas Company, LLC TransColorado Gas Transmission Co., LLC, and Natural Gas Pipeline Company of America, LLC: ANA MARIA GUTIERREZ, ESQ. HOGAN LOVELLS US LLP 1601 Wewatta Street Suite 900 Denver, Colorado 80202 (303)454-2514 ana.gutierrez@hoganlovells.com	1 I N D E X 2 PAGE 3 Opening Statement by Ms. Katz 41 4 Opening Statement by Ms. Fox 53 5 Opening Statement by Ms. Paranhos 61 6 Opening Statement by Mr. Shimanek 69 7 Opening Statement by Mr. Vimont 72 8 Opening Statement by Mr. Nykiel 73 9 Opening Statement by Mr. de Saillan 79 10 Opening Statement by Mr. Hiser 84, 98 11 Opening Statement by Mr. Rose 101 12 Opening Statement by Mr. Janoe 107 13 Opening Statement by Mr. Butzier 109 14 Opening Statement by Ms. Gutierrez 114 15 Opening Statement by Mr. Neumann 123 16 Opening Statement by Ms. Witherspoon 129 17 PUBLIC COMMENT: (1 p.m.) 18 CLINTON WHISONANT 135 19 JOHN ALEXANDER 137 20 MICHAEL PARRINO, M.D. 139 21 DAVID LEBLANC 143 22 SISTER JOAN BROWN 146 23 KAYLEY SHOUP 149 24 ARCELIA ISAIAS-GASTELUM 152 25 NMED WITNESSES: ANGELA RASO, Ph.D. (Ozone formation) Direct Examination by Ms. Katz 166 Examination by the Board 172

9		11	
1	NMED WITNESSES: (Continuing)	1	NMED EXHIBITS: (Continuing)
2	BRENT ELLINGTON	2	Exhibit 13. Written Direct Testimony of Angela
3	Direct Examination by Ms. Katz	3	Raso
4	Cross-Examination by Mr. Rose	4	Exhibit 14. Resume of Angela Raso
5	Examination by the Board	5	Exhibit 15. Photochemical Modeling Protocol
6	ANDREW AHR	6	Exhibit 16. 2014 Modeling Platform Development
7	Direct Examination by Ms. Katz	7	and Model Evaluation
8	Cross-Examination by Mr. Hiser	8	Exhibit 17. Air Quality Technical Support
9	Examination by the Board	9	Document
10	NATIONAL PARK SERVICE WITNESS:	10	Exhibit 18. New Mexico OAI Study Photochemical
11	JOHN VIMONT	11	First Monthly Webinar May 2020
12	Direct Examination by Ms. Devore	12	Exhibit 19. New Mexico OAI Study Photochemical
13	Cross-Examination by Mr. Hiser	13	First Monthly Webinar June 2020
14	Examination by the Board	14	Exhibit 20. 2014 and 2023 Emissions, CAMx WRF
15	NMED WITNESSES: (Continuing)	15	Sensitivity Tests and Final Model Configuration
16	ELIZABETH BISBEY-KUEHN	16	Exhibit 21. Emissions, CAMx, Base and Model
17	Direct Examination by Ms. Katz	17	Performance, 2023 CAMx Model Status
18	Examination by the Board	18	Exhibit 22. 2014 and 2028 Emissions Development
19	MICHAEL BACA	19	Exhibit 23. Revised 2014v2 Base Case, 2028 Base Case
20	Direct Examination by Mr. Knight	20	Modeling and 2028 NM O&G Control Strategy (Feb 2021)
21	Cross-Examination by Mr. Rose	21	Exhibit 24. Sensitivity of 2028 Ozone Projections
22	Redirect Examination by Mr. Knight	22	to Current Year Ozone, Draft TSD
23	Chat Question	23	Exhibit 25. 2028 Source Sector APCA Ozone Source
24	Surrebuttal Direct Examination by Mr. Knight	24	Apportionment Modeling, Revised Draft TSD (April 2021)
25	Surrebuttal Cross-Examination by Mr. Hiser	25	Exhibit 26. 2028 VOC and NOx Sensitivity OSAT Ozone
26	Surrebuttal Cross-Examination by Mr. Rose	26	Source Apportionment Modeling and Draft Final TSD
27	Surrebuttal Examination by the Board	27	(April 2021)
28	Surrebuttal Redirect Examination by Mr. Knight	28	Exhibit 27. Written Direct Testimony of Brent
29	IPANM WITNESSES:	29	Ellington
30	DOUG BLEWITT	30	Exhibit 28. Resume of Brent Ellington
31	Direct Examination by Mr. Rose	31	Exhibit 29. NMED Air Quality Bureau Ambient Air
32	Examination by the Board	32	Monitoring Quality Assurance Project Plan 2020
33		33	
10		12	
1	PUBLIC COMMENT: (5 p.m.)	1	NMED EXHIBITS: (Continuing)
2	SANDRA ELY	2	Exhibit 30. Written Direct Testimony of Andrew
3	RICHARD REYNAUD	3	Ahr
4	PASTOR NICHOLAS KING	4	Exhibit 31. Resume of Andrew Ahr
5	E X H I B I T S	5	Exhibit 32. Written Direct Testimony of Elizabeth
6	NOTE: No exhibits are attached physically to this	6	Bisbey-Kuehn and Brian Palmer
7	transcript. They can be found online at www.env.nm.	7	Exhibit 33. Resume of Brian Palmer
8	gov.opf/docketed-matters/	8	Exhibit 34. EPA Office of Air and Radiation, Control
9	NMED EXHIBITS:	9	Techniques Guidelines for the Oil and Natural Gas
10	Exhibit 1. Written Direct Testimony of	10	Industry, EPA-453/B-16-001 (October 2016) ("EPA CTG")
11	Michael Baca	11	Exhibit 35. EPA New Source Performance Standards at
12	Exhibit 2. Resume of Michael Baca	12	40 CFR Part 60, Subpart 0000 - Standards of Performance
13	Exhibit 3. EPA Integrated Science Assessment for	13	for Crude Oil and Natural Gas Facilities for Which
14	Ozone and Related Photochemical Oxidants, Executive	14	Construction, Modification, or Reconstruction Commenced
15	Summary (April 2020)	15	After August 23, 2011 and on or before September 18,
16	Exhibit 4. NMED Ozone Attainment Initiative - Ozone	16	2015. ("NSPS Subpart 0000")
17	Path Forward for New Mexico (July 2021)	17	Exhibit 36. EPA New Source Performance Standards at
18	Exhibit 5. Written Direct Testimony of Elizabeth	18	40 CFR Part 60, Subpart 0000a - Standards of Performance
19	Bisbey-Kuehn	19	for Crude Oil and Natural Gas Facilities for which
20	Exhibit 6. Resume of Elizabeth Bisbey-Kuehn	20	Construction, Modification or Reconstruction Commenced
21	Exhibit 7. Executive Order 2019-03	21	After September 18, 2015. ("NSPS Subpart 0000a")
22	Exhibit 8. Methane Strategy Listening Session	22	Exhibit 37. Pennsylvania GP-5, General Plan Approval
23	Presentation - August 6, 2020	23	And/or General Operating Permit BAQ-GPA/GP-5 for Natural
24	Exhibit 9. Methane Strategy Community Impacts	24	Gas Compression Stations, Processing Plants, and
25	Meeting Presentation - March 19, 2020	25	Transmission Stations (Pennsylvania GP-5")
26	Exhibit 10. Methane Advisory panel Technical	26	Exhibit 38. Pennsylvania GP-5A, General Plan Approval
27	Report	27	And/or General Operating Permit BAQ-GPA/GP-5A for
28	Exhibit 11. Ozone Attainment Initiative Initial	28	Unconventional Natural Gas Well Site Operations and Remote
29	Public Outreach Presentation, September 2019	29	Pigging Stations ("Pennsylvania GP-5A")
30	Exhibit 12. Pre-Petition Draft of 20.2.50 NMAC -	30	Exhibit 39. Colorado Regulation Number 7 - Control of
31	July 20, 2020	31	Ozone via Ozone Precursors and Control of Hydrocarbons via
32		32	Oil and Gas Emissions (Emissions of Volatile Organic
33		33	Compounds and Nitrogen Oxides) ("Colorado Reg.7")
34		34	Exhibit 40. Wyoming Department of Environmental
35		35	Quality, Air Quality Division - Oil and Gas Production
36		36	Facilities Chapter 6, Section 2 Permitting Guidance
37		37	(Revised through May 2016) ("Wyoming Permitting
38		38	Guidance")

13	15
1 NMED EXHIBITS: (Continuing) ADMITTED 2 Exhibit 41. Proposed Part 20.2.50 NMAC - July 28, 2021 Version (Redline) 164 3 4 Exhibit 42. 40 CFR Part 60, Appendix B - EPA Reference Method 21 164 5 Exhibit 43. EPA AP-42 Chapter 5.2 Transportation, and Marketing of Petroleum Liquids 164 6 7 Exhibit 44. EPA Lessons Learned from Natural Gas STAR Partners, Options for Removing and Accumulated Fluid and Improving Flow in Gas Wells (2011) 164 8 9 Exhibit 45. Ozone Transport Commission, Information - Oil and Gas Sector - Significant Stationary Sources of NOx Emissions (October 17, 2012) 164 10 11 Exhibit 46. Cooper Machineries Services webpage at https://www.cooperservices.com/engines-and-compressors/upgrades/0-5-gbhp-hr-nox-solution%E2%80%8B/ 164 12 13 Exhibit 47. California South Coast Air Quality Management District Rule 1110.2 164 14 15 Exhibit 48. EPA, Stationary Reciprocating Internal Combustion Engines Updated Information on NOx Emissions and Control Techniques, Publication No. EPA-457/R-00-001 (September 2000) 164 16 17 Exhibit 49. National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart ZZZZ 164 18 19 Exhibit 50. New Source Performance Standards, 40 CFR Part 60, Subpart JJJJ 164 20 Exhibit 51. ERG - Engines and Turbines OH Stack Tests Spreadsheet 164 21 22 Exhibit 52. Pennsylvania DEP, Technical Support Document for Pennsylvania GP-5 and GP-5A (June 2018) 164 23 Exhibit 53. EPA Office of Air and Radiation's Alternative Control Techniques Document - NOx Emissions from Stationary Gas Turbines, EPA-435/R-93-007 (January 1993) 164 25	1 NMED EXHIBITS: (Continuing) ADMITTED 2 Exhibit 64. ERG - Compressor Seals - Reciprocating Engines Spreadsheet 164 3 4 Exhibit 65. Partner Reported Opportunities (PROs) for Reducing Methane Emissions, West Seal Degassing Recovery System for Centrifugal Compressors 5 (2014) ("Centrifugal Compressors Technical Document") 164 6 Exhibit 66. ERG - Compressor Seals - Turbines Spreadsheet 164 7 8 Exhibit 67. EPA Reference Method 22 - Visual Determination of Fugitive Emissions from Material Sources and Smoke from Flares (January 14, 2019) 164 9 10 Exhibit 68. Baseline 2014-2016 Oil and Gas Emission Inventory for the WESTAR-WRAP Region (June 2019) ("2014 Oil and Gas Emission Inventory") 164 11 12 Exhibit 69. ERG - LDAR Reductions and Costs VOC Spreadsheet 164 13 Exhibit 70. EPA, Background Technical Support Document for the Final New Source Performance Standards (40 CFR Part 60, Subpart 0000a), EPA-HQ-OAR-2010-0505-7631 (May 2016) 164 15 16 Exhibit 71. Colorado Dept. Of Public Health and Environment, Regulatory Analysis for Proposed Revisions to Colorado Air Quality Control Commission Regulations Numbers 3, 6 and 7 (5 CCR 1001-5.5, 5 CCR 1001-8, and CCR 1001-9), (February 11, 2014 ("2014 Colorado Regulatory Analysis") 164 19 Exhibit 72. ICF International, Economic Analysis of Methane Emission Reduction Potential from Natural Gas Systems, (May 2016) ("ICF Economic Analysis") 164 21 Exhibit 73. EPA Report, Lessons Learned from Natural Gas STAR Partners - Options for Removing Accumulated Fluid and Improving Flow in Gas Wells (2011) 164 22 Exhibit 74. EPA Report, Lessons Learned from Natural Gas STAR Partners-Installing Plunger Lift Systems in Gas Wells (2006) 164 25
14	16
1 NMED EXHIBITS: (Continuing) ADMITTED 2 Exhibit 54. OTC Stationary and Area Sources committee, OTC Regulatory and Technical Guideline for Control of Nitrogen Oxides (NOx) Emissions from Natural Gas Pipeline Compressor Fuel-Fired Prime Movers (May 14, 2019) 164 5 Exhibit 55. EPA AP-42, Fifth Edition Compilation of Air Emissions Factors, Volume 1: Stationary Point and Area Sources, Chapter 3, Stationary Internal Combustion Sources. Section 3.3 Gasoline and Diesel Industrial Engines 164 8 Exhibit 56. ERG - ICE Reductions and Costs NO2 Spreadsheet 164 9 10 Exhibit 57. ERG - ICE Reductions and Costs VOC Spreadsheet 164 11 Exhibit 58. ERG - Turbines Reductions and Costs NO2 Spreadsheet 164 12 13 Exhibit 59. ERG - Turbines Reductions and Costs VOC Spreadsheet 164 14 Exhibit 60. EPA Office of Air and Radiation, Final Technical Support Document (TSD) for the Cross-State Air Pollution Rule for the 2008 Ozone AAQS - Assessment of Non-EGU NOx Emission Controls, Cost of Controls, and Time for Compliance Final TSD, Docket ID No. EPA-HQ-OAR-2015-0500 (August 2016) 164 17 18 Exhibit 61. INGAA Foundation Final Report No. 2014.03, Availability and Limitations of NOx Emission Control Resources for Natural Gas-Fired Reciprocating Engine Prime Movers Used in the Interstate Natural Gas Transmission Industry 164 20 21 Exhibit 62. Alpha-Gamma Technologies, Inc., Control Costs for Reciprocating Internal Combustion Engines at Major and Area Sources, EPA Docket Item No. EPA-HQ-OAR-2005-0030-0005 (April 28, 2006) 164 22 23 Exhibit 63. EC/R, Inc., Control Costs for Existing Stationary RICE, EPA Docket Item No. EPA-HQ-OAR-2008-0708-0554 (June 29, 2010) 164 25	1 NMED EXHIBITS: (Continuing) ADMITTED 2 Exhibit 75. ERG - Dehydrator 15 tpy Cutoff Analysis Spreadsheet 164 3 4 Exhibit 76. Memo from Heather Brown, P.E., to Greg Nizich, Impacts of Applying Management Practices to a Single Oil and Natural Gas Production Area Source Facility, EPA Docket No. EPA-HQ-OAR-0238-0061 (December 21, 2006) 164 6 7 Exhibit 77. ERG - Dehydrators Reductions and Costs Spreadsheet 164 8 Exhibit 78 - Memo from Heather Brown, P.E., to Greg Nizich, Revised Impacts from Area Sources in the Oil and Natural Gas Production Source Category, EPA Docket No. EPA-HQ-OAR-2004-0238-0002 (June 25, 2005) 164 10 11 Exhibit 79 - Memo from Heather Brown, P.E., to Greg Nizich, Impacts of the Final Standards for Oil and Natural Gas Production Area Sources, EPA Docket No. EPA-HQ-OAR-2004-0238-0055 (December 21, 2006) 164 12 13 Exhibit 80 - 40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters ("NESHAP Subpart DDDDD") 164 15 16 Exhibit 81. EPA, Technical Bulletin: Nitrogen Oxides (NOx), Why and How They Are Controlled (November 1999) 164 17 Exhibit 82. ERG - Heaters Reductions and Costs NO2 Spreadsheet 164 18 19 Exhibit 83. Utah Rule R307-504 - Oil and Gas Industry: Tank Truck Loading 164 20 Exhibit 84. ERG - Transfers Reductions and Costs Spreadsheet 164 21 22 Exhibit 85. Consent Decree - U.S. V MarkWest Liberty Midstream & Resources, LLC, No. 2:18-CV-00520-LPL (W.D. Penn., April 24, 2018) ("MarkWest Consent Decree") 164 23 24 Exhibit 86. Ohio General Permit 21.1 for Title V and non-Title V pigging operations ("Ohio General Permits") 164 25

17	19
1 NMED EXHIBITS: (Continuing) ADMITTED 2 Exhibit 87. EPA PRO Fact Sheet No. 505, Recover Gas from Pipeline Piggings Operations 164 3 4 Exhibit 88. EPA Enforcement Alert, EPA Publication No. 325-F-19-001 (September 2019) 164 5 Exhibit 89. EPA, Vapor Recovery and Gathering Pipeline Piggings, PowerPoint Presentation at the Producers and Processors Technology Transfer Workshop, Midland, TX (July 23, 2008) 164 6 7 Exhibit 90. EPA Natural Gas STAR Program PRO Fact Sheet No. 904, Install Flares (2011) 164 8 Exhibit 91. EPA Office of Air Quality Planning and Standards, Oil and Natural Gas Sector Pneumatic Devices: Report for Oil and Natural Gas Sector Pneumatic Devices Review Panel as part of the President's Climate Action Plan: A Strategy to Reduce Methane Emissions (April 2014) ("EPA 2014 O&G Pneumatic Devices Report") 164 9 10 Exhibit 92. EPA Office of Air and Radiation, Options for Reducing Methane Emissions from Pneumatic Devices in the Natural Gas Industry (October 2006) 164 11 12 Exhibit 93. Colorado Pneumatic Controller Task Force, PCTF Report to the Air Quality Control Commission: Pneumatic Controller Field Study and Recommendations (June 1, 2020) ("2020 PCTF Report") 164 13 Exhibit 94. ERG - 2020 Producing Wells Spreadsheet 164 14 15 Exhibit 95. ERG - Pneumatics Reductions and Costs Spreadsheet 164 16 Exhibit 96. ERG - NM Pneumatics Data Subpart W Spreadsheet 164 17 18 Exhibit 97. 80 Fed. Reg. 64262, Greenhouse Gas Reporting Rule: 2015 Revisions and Confidentiality Determination for Petroleum and Natural Gas Systems (October 22, 2015) 164 19 Exhibit 98. 81 Fed. Reg. 86517, Greenhouse Gas Reporting Rule: Leak Detection Methodology Revisions and Confidentiality Determinations for Petroleum and Natural Gas Systems (November 30, 2016) 164	1 NMED REBUTTAL EXHIBIT LIST - EIB 21-27 (R) (Continuing) 2 Rebuttal Exhibit 3. Ohio Oil & Gas Stack Test Data Spreadsheet 164 3 4 Rebuttal Exhibit 4. July 13, 2021 Letter from Solar Turbines, Inc., to Elizabeth Bisbey-Kuehn 164 5 Rebuttal Exhibit 5. Caprock Compressor Station Cost Estimates 164 6 7 Rebuttal Exhibit 6. GHGRP Data for NG Transmission Compression Spreadsheet 164 8 Rebuttal Exhibit 7. NMOGA Methane Mitigation Roadmap 164 9 10 Rebuttal Exhibit 8. EPA Oil and Natural Gas Sector Liquids Unloading Processes 164 11 Rebuttal Exhibit 9. ERG - Updated Heaters Reductions and Costs NO2 Spreadsheet 164 12 13 Rebuttal Exhibit 10. EPA Guidelines for Preparing Economic Analyses (March 2016) 164 14 Rebuttal Exhibit 11. Rebuttal Testimony of Ralph Morris 164 15 16 Rebuttal Exhibit 12. ERG Emission Inventory Reductions 164 17 Rebuttal Exhibit 13. NOx Increases Due to VOC Controls Estimates Spreadsheet 164 18 19 Rebuttal Exhibit 14. Written Rebuttal Testimony of Cindy Hollenberg 164 20 Rebuttal Exhibit 15. Resume of Cindy Hollenberg 164 21 Rebuttal Exhibit 16. Resume of Brielle Meade 164 22 Rebuttal Exhibit 17. Written Rebuttal Testimony of Brandon Powell 164 23 24 Rebuttal Exhibit 18. Resume of Brandon Powell 164 25 Rebuttal Exhibit 19. Written Rebuttal Testimony of Susan Day and Brian Palmer 164
18	20
1 NMED EXHIBITS: (Continuing) ADMITTED 2 Exhibit 99. EPA OAR: Natural Gas STAR, Lessons Learned: Convert Gas Pneumatic Controls to Instrument Air (October 2006) 164 3 4 Exhibit 100. ERG - Storage Tanks Reductions and Costs VOC Spreadsheet 164 5 6 Exhibit 101. EPA, Credible Evidence Revisions, 62 Fed. Reg. 8314 (February 24, 1997) 164 7 Exhibit 102. Written Direct Testimony of Susan Day and Elizabeth Bisbey-Kuehn 164 8 9 Exhibit 103. Resume of Susan Day 164 10 11 Exhibit 104. ERG - Owner Address List Final Spreadsheet 164 12 Exhibit 105. ERG - Preliminary Results NAICS.COM Updated Spreadsheet 164 13 14 Exhibit 106. Written Direct Testimony of Ralph Morris 164 15 Exhibit 107. Resume of Ralph Morris 164 16 Exhibit 108. EPA Modeling Guidance for Demonstrating Air Quality Goals for Ozone, PM2.5, and Regional Haze, EPA 454/R-18-009 (November 2018) 164 17 Exhibit 109. EPA Office of Air Quality and Standards, Alternative Control Techniques Document - NOx Emissions from Process Heaters, EPA 453/R-93-034 (September 1993) (Excerpt) 164 18 19 Exhibit 110. Carbon Limits, Zero Emissions Technologies for Pneumatic Controllers in the USA (2016) 164 20 21 NMED REBUTTAL EXHIBIT LIST - EIB 21-27 (R) 22 23 Rebuttal Exhibit 1. Written Rebuttal Testimony of Elizabeth Bisbey-Kuehn and Brian Palmer 164 24 Rebuttal Exhibit 2. Proposed Part 20.2.50 NMAC - September 7, 2021 Version (Redline) 164 25	1 NMED REBUTTAL EXHIBITS: (Continuing) ADMITTED 2 Rebuttal Exhibit 20. Total Cost Summary Spreadsheet 164 3 4 Rebuttal Exhibit 21. National Emissions Standards for Hazardous Air Pollutants for Source Categories: Oil and Natural Gas Production and Natural Gas Transmission and Storage - Background Information for Proposed Standards, EPA-453/R-94-079a (April 1997) ("April 1997 TSD") 164 5 6 Rebuttal Exhibit 22. Written Rebuttal Testimony of Michael Baca 164 7 NATIONAL PARK SERVICE EXHIBITS: ADMITTED 8 Exhibit A - Resume of John Vimont 212 9 Exhibit B - NPS Written Technical Testimony to New Mexico Regarding the Proposed Ozone Precursor Rule - September 2021 212 10 Exhibit C - National Park Service Technical Comments PowerPoint Presentation 212 11 12 Exhibit D - Proposed 20.2.50 NMAC Draft 212 13 14 Exhibit E - NPS Technical Comments Synopsis PowerPoint Presentation 212 15 IPANM EXHIBITS: ADMITTED 16 Exhibit 6 - Direct Testimony of Doug N. Blewitt 269 17 Exhibit 12 - Rebuttal Testimony of Doug N. Blewitt, CCM 270 18 19 20 21 22 23 24 25

21 1 HEARING OFFICER ORTH: Okay. Good morning. My 2 name is Felicia Orth; I'm the Hearing Officer appointed by 3 the Environmental Improvement Board to conduct a hearing 4 in this matter. It's a Petition for Rulemaking docketed 5 by the Board Administrator and as EIB 21-27, related to 6 air pollutants, which are ozone precursors. The hearing 7 will be conducted in accordance with the Board's 8 rulemaking procedures, which you can find in Section 9 20.1.1 of the New Mexico Administrative Code. 10 We have Board members present, so let me 11 introduce them before I go any further. Member Suina: Is 12 there. Good morning, Madam Chair. 13 CHAIRPERSON SUINA: Good morning. 14 HEARING OFFICER ORTH: We have Vice Chair Davis 15 you see on the screen. We have -- do we have Member Cates 16 BOARD MEMBER CATES: Here, yes. 17 HEARING OFFICER ORTH: Yes. Good morning, Member 18 Cates. 19 BOARD MEMBER CATES: Thank you. 20 HEARING OFFICER ORTH: Member Bitzer, I think was 21 just speaking with us. There's Member Bitzer waving. 22 Member Duval, I know is with us. Member Duval. Member 23 Garcia, there you are. Good morning. And Member Honker, 24 I know you're on. 25 BOARD MEMBER HONKER: Good morning.	23 1 process following the close of the record. 2 If you are curious about where we are in the 3 process and it's unclear from the webpage, please reach 4 out to the Board's Administrator, Pamela Jones, whose 5 contact information is on the web page. The hearing is 6 structured to provide both for -- let's see. Member 7 Cates, please mute yourself. 8 The hearing is structured to provide for both 9 technical testimony and nontechnical public comment every 10 day. There are currently 29 opportunities to offer public 11 comment at 9 a.m., except today, 1:00 p.m. and 5 p.m. each 12 day of the hearing. If you would like to identify a day 13 and time during which I can call on you to offer public 14 comment, please send an email to Pam Jones and let her 15 know when you'd like to speak. Public comment can only be 16 offered once, so please collect your thoughts before you 17 begin, and is limited to five minutes. In the event the 18 statements you would like to share with the Board would 19 exceed five minutes, please put those statements in 20 writing. There are no page limits on written public 21 comment, and the Board will consider all of it in its 22 deliberations. Written public comment must be received 23 before we adjourn the hearing; again, likely on October 24 1st. So please, please get your written public comments 25 in before then.
22 1 HEARING OFFICER ORTH: Good morning. We also 2 have the Board Administrator, whom you will hear me 3 referring to quite a bit. There, she's waving. Her name 4 is Pamela Jones and she will be a primary contact for a 5 lot of you in a couple of different ways I'll mention 6 shortly. And we have Board Counsel Karla Soloria. 7 MS. SOLORIA: Good morning. 8 HEARING OFFICER ORTH: Good morning. All right. 9 We also have -- we have a number of parties in this 10 matter; about a dozen, and many, many lawyers representing 11 those parties. I'll ask for appearances in a little bit. 12 I need to make some comments first about the case, the 13 virtual platform we're on, and our process. 14 So all documents in this case, including the 15 rulemaking petition, entries of appearance, direct and 16 rebuttal testimony, exhibits, motions, public comment 17 received at least as of this morning, all of those 18 documents can be found on the EIB webpage and in 19 particular on the page that is titled Docketed Matters. 20 As additional pleadings are filed or comments 21 submitted, that will also be posted. The Board will be 22 hearing a lot of evidence and argument on this petition 23 and no decision will be made any time soon. We expect the 24 evidentiary hearing to last two weeks. Hoping to end on 25 October 1st. And there will be a multiweek post-hearing	24 1 In addition to nontechnical public comment, we 2 have, I believe it's 59 technical witnesses being 3 presented by the parties. And the parties' representatives 4 have generally agreed that the Board would find it most 5 helpful to hear as much as practicable, that testimony by 6 topic. Now, that won't be possible completely; that is to 7 say based on witness availability, for example, and other 8 factors, but a lot of the testimony in this matter will 9 come in by topic, meaning we won't hear from each party 10 all at once in order. 11 It remains one transcript. That entire 12 transcript will be considered and obviously in the 13 post-hearing process, the parties will be able to make 14 their arguments and lay out their evidence anywhere from 15 that -- from that transcript. 16 Speaking of the transcript, our court reporter 17 today is Theresa DuBois. Because the transcript is the 18 official record of this proceeding, it is important that 19 she be able to hear everyone. And she has been invited to 20 speak up at any time in the event she is struggling to 21 hear someone, and we may have to ask you to repeat 22 something if she -- if she didn't hear it the first time. 23 I have hit the record button, and eventually the 24 recording may be available, for example, on a -- on the 25 Board's webpage or another channel, but, again, it's not

25 1 the official record; the transcript is. So, although, we 2 have a lot of folks to hear from every day, we will 3 generally take one morning break of about 15 minutes, one 4 lunch break, which may or may not be an hour, and one 5 afternoon break. The end of the day is a little more 6 fluid. It depends in part on how much public comment is 7 offered in the 5:00 session. It depends also on whether 8 it's possible to wrap up a particular technical witness 9 before we break for the day. So that's a little fluid. 10 Let me say a few words about the platform. It is 11 true a couple of weeks ago, the Board Administrator did 12 put on the EIB calendar a link to the hearing in this 13 matter. And those links -- that link, excuse me, was 14 replaced with a different link for each day of the hearing 15 on the calendar, and was certainly there this morning when 16 everyone wanted to check in. It was driven by the fact 17 that -- the change in the link prior to this morning was 18 driven by the fact that it was important to set this event 19 up as Cisco WebEx event rather than a Cisco WebEx meeting. 20 And having said that, I tried to remove any requirement 21 for registration or passwords. Ideally, you could just 22 click on the link for that day's hearing and get to us 23 directly. I had some folks try it this morning and it 24 worked for them. Having said that, we didn't want the 25 original link to lead merely to an error message. So the	27 1 Jones and I will be trading off on the host duties 2 throughout this hearing. That is the only place that your 3 Chat will go. Please do not put anything in that Chat 4 that is not about, for example, platform technology. The 5 Chat will not be saved or recorded. It's certainly not 6 meant for any kind of public comment, which must come in 7 either orally or in writing to the Administrator. 8 Board members and party representatives have been 9 given a number to text in the event of serious technical 10 difficulties. Attendees may communicate with a text to 11 Pam Jones. Let me give you that number: (505) 660-4305. 12 With so many people on the platform, I will 13 encourage those folks, other than the court reporter and 14 the Board members to turn on their video only when they 15 are speaking. And if you can, please avoid the virtual 16 backgrounds, which as the court reporter has noted, can 17 interfere with the audio. 18 Today, we take public comment sessions at 1 and 19 5 p.m. We expect to be hearing opening statements and 20 some testimony, particularly from the Environment 21 Department in support of their petition. We're working 22 from a spreadsheet in which the parties have agreed to the 23 general order of the topics here. That will definitely -- 24 could definitely change as we go on, again, based on 25 witness availability, but we may well be hearing on ozone
26 1 Department's CIO is sitting in the meeting that the 2 original link would take you to, with the information to 3 join us here on this link. And if someone actually 4 calendared the original link, it will be very easy for 5 them to see the information that would allow them to join 6 us here. 7 So the Board members and party representatives 8 have joined as panelists and can control their own sound 9 and video. Witnesses will become panelists when they are 10 called upon to testify. No one will be made a presenter, 11 meaning you can share your screen, until it is necessary 12 to assign that role. And just know that I can only 13 have -- I can only assign the presenter role to one person 14 at a time. See, I'm making Mr. Baca a panelist. 15 And lawyers and party representatives, if you 16 would, please do what a few of you have done this morning; 17 in the event you have any trouble with the panelists' link 18 or panelists' invitation, join as an attendee. Let me 19 know somehow that you've joined as an attendee and I 20 will -- I will redesignate you. 21 The remaining folks on the platform are attendees 22 and will be unmuted as necessary in order to make public 23 comment at the appropriate time. You will see that the 24 Chat function, which is in your lower right-hand corner, 25 has been configured to allow only Chat with the host. Pam	28 1 formation, ozone monitoring, stakeholder outreach, to 2 begin with. So I'm going to ask for appearances, Counsel. 3 Not every morning, but this morning. And on that note, 4 again, lots of Board members, lots of lawyers and other 5 party representatives. Having called for your appearances 6 at the beginning of this hearing, I am not going to ask 7 you to announce when you are coming or going. I turned 8 off attention tracking. As far as I'm concerned, if 9 you're on the platform, you're on the platform. And if 10 you're not on the platform, you're not on the platform. 11 The drawback there, obviously, is that if I call on you 12 for any questions to cross-examine a witness and you're 13 not in attendance, that time will have passed. We won't 14 be recalling witnesses. And once again, if you are not on 15 the platform and it is a serious technical emergency -- 16 technological emergency, please text me and we'll work 17 through that. 18 So Ms. Katz, if you would, I'm going to call you 19 roughly in the order with one exception -- roughly in the 20 order in which we prepared the service list. Ms. Katz, 21 please. 22 MS. KATZ: Thank you, Madam Hearing Officer. 23 Good morning, Madam Chair, members of the Board: Lara 24 Katz on behalf of the New Mexico Environment Department. 25 I have with me today my colleague Andrew Knight, also with

29 1 the Department. Thank you. 2 HEARING OFFICER ORTH: Thank you very much. 3 Ms. Fox. 4 MS. FOX: Good morning, Madam Hearing Officer, 5 Madam Chair, members of the Board. My name is Tannis Fox, 6 with Western Environmental Law Center. I'm here today 7 with my co-counsel David Baake, and we represent nine 8 clients today throughout the hearing, whom we're referring 9 to by shorthand as "Clean Air Advocates." Thank you. 10 HEARING OFFICER ORTH: Thank you. Ms. Paranhos? 11 MS. PARANHOS: Good morning, Madam Hearing 12 Officer, Madam Chair, members of the Board. Elizabeth 13 Paranhos here this morning on behalf of the Environmental 14 Defense Fund. 15 HEARING OFFICER ORTH: Thank you. Mr. Jaynes and 16 the others on behalf of Center for Civic Policy and NAVA. 17 MR. JAYNES: Good morning, Madam Hearing Officer. 18 Daniel Jaynes with University of New Mexico on behalf of 19 Center for Civic Policy and NAVA Education Project. And I 20 have Gabe Pacyniak, Travis Shimanek and Keifer Johnson 21 here with me today. 22 HEARING OFFICER ORTH: Thank you very much. 23 National Park Service. Is Ms. Devore with us? 24 MS. DEVORE: Hi. Lisa Devore with the National 25 Park Service, and I'll turn off my virtual background in a	31 1 Association of New Mexico and I'm here all by myself. 2 HEARING OFFICER ORTH: All right. Mr. Janoe? 3 MR. JANOE: Good morning, Madam Hearing Officer, 4 Madam Chair and members of the Board. My name is Scott 5 Janoe; I'm here on behalf of Oxy USA, Inc. 6 HEARING OFFICER ORTH: Thank you. 7 Mr. Holmstead or Mr. Swift? 8 MR. BUTZIER: Good morning, Madam Hearing 9 Officer. This is Stuart Butzier, of the Modrall Sperling 10 Santa Fe Office, representing GCA. Also Gas Compressor 11 Association is the formal name. Whit Swift, who you 12 invited to speak, is one of our co-counsel, with the 13 national law firm of Bracewell, LLP. And I'm also 14 accompanied by my partner, Christina Sheehan, from the 15 Albuquerque office of Modrall Sperling. 16 HEARING OFFICER ORTH: Good morning. 17 Ms. Gutierrez. 18 MS. GUTIERREZ: Good morning, Madam Hearing 19 Officer, Madam Chair, and the Board members and other 20 parties. My name is Ana Gutierrez, with Hogan Lovells, 21 and I'm representing Kinder Morgan in these hearings. 22 HEARING OFFICER ORTH: Thank you. The Commercial 23 Disposal Group? 24 MR. NEUMANN: Good morning, Madam Chair. I'm 25 sorry, Madam Hearing Officer, this is Chris Neumann with
30 1 few minutes here. Thank you. 2 HEARING OFFICER ORTH: All right. Thank you. 3 WildEarth Guardians, do we have Mr. Timmons or Mr. Nykiel? 4 MR. NYKIEL: Good morning, Madam Hearing 5 Officer, Madam Chair, members of the Board. My name is 6 Matt Nykiel; I'm here with Daniel Timmons, my co-counsel, 7 on behalf of WildEarth Guardians. Thank you. 8 HEARING OFFICER ORTH: Thank you very much. 9 Mr. de Saillan. 10 MR. DE SAILLAN: Thank you. Good morning, 11 Madam Hearing Officer, Madam Chair, members of the Board. 12 I'm Charles de Saillan and I'm here on behalf of the New 13 Mexico Environmental Law Center. 14 HEARING OFFICER ORTH: Good morning. New Mexico 15 Oil and Gas Association, who you'll hear referred to as 16 NMOGA throughout the hearing. 17 MR. HISER: Good morning, Madam Hearing Officer, 18 Madam Chair, Board members. This is Eric Hiser 19 representing the New Mexico Oil and Gas Association, or 20 NMOGA. I'm here with Brandon Curtis, also of my office 21 and we have co-counsel as well, Dalva Moellenberg. 22 HEARING OFFICER ORTH: Thank you very much. 23 Mr. Rose? 24 MR. ROSE: Yes, Madam Hearing Officer, this is 25 Louis Rose on behalf of the Independent Petroleum	32 1 Greenberg Traurig. And with me are Casey Shpall and Greg 2 Tan, Matthias Sayer of NGL Energy Partners and this is 3 Chris Colclasure, representing the Commercial Disposal 4 Group. 5 HEARING OFFICER ORTH: Good morning. Let's see. 6 Do we have Ms. Witherspoon on? 7 MS. WITHERSPOON: Yes. Good morning, Madam 8 Hearing Officer, Madam Chair and the Board members. 9 Leslie Witherspoon representing Solar Turbines. 10 HEARING OFFICER ORTH: Good morning. 11 I believe those are all of the parties who 12 entered appearances and/or submitted a Notice of Intent to 13 present technical testimony. Let me turn then to some 14 motions or -- well, let me -- let me ask if other than the 15 motions and opening statements, if any of the parties have 16 another matter that we would need to address before we 17 begin taking testimony. 18 All right. I hear nothing. Let's see. Well, we 19 have -- the Department filed two motions, one to strike 20 the National Park Service NOI or Notice of Intent and 21 another to strike the Solar Turbines NOI. I did get 22 responses both from the National Park Service and from 23 Solar Turbines. 24 The National Park Service repackaged, as appeared 25 to be the request from the Department -- repackaged their

33 1 materials as part of a rebuttal NOI. 2 And Ms. Katz, I'm inclined to accept the rebuttal 3 NOI and their planned testimony in that format. Would you 4 have anything to add if that were my plan? 5 MS. KATZ: No, Madam Hearing Officer, we agree 6 with that decision. 7 HEARING OFFICER ORTH: All right. Thank you. 8 Moving then to Solar Turbines, I -- I understand that 9 there wasn't perfect compliance with service, for example. 10 Although, I will note there hasn't been perfect compliance 11 with the service list on behalf of a couple of parties. 12 And I'm inclined to accept -- provide Solar Turbines with 13 an opportunity to give the comments that they want to 14 give. And other than assuring that there aren't, if you 15 will, surprises that, in fact, the testimony will stick 16 closely to what was submitted, I'm wondering if you had 17 any other comment there. 18 MS. KATZ: Thank you, Madam Hearing Officer. The 19 Department doesn't object to Solar Turbines giving 20 comment. I do believe, though, that the requirements for 21 submitting technical expert testimony were not complied 22 with and that -- that's my concern is guarding that 23 process. So if there's some way to have that presented in 24 a different manner, that would be fine. 25 HEARING OFFICER ORTH: Okay. What I'd like to do	35 1 the end of this hearing, I may or may not be asked to 2 compile that, for example, in a report. The Board won't 3 make that decision for a little bit. 4 But I think at this moment, it's premature and my 5 recommendation would be that the Board disregards for the 6 moment these comments throughout Exhibit B and Exhibit 47 7 because they're not, if you will, cited to testimony or to 8 exhibits just yet. That record will be made as we go 9 along. I think this sort of thing will come in very handy 10 after the end of the record, but not just yet. 11 So I don't know who would be speaking on behalf 12 of NMOGA, but I'm wondering if we can get Exhibit B and 13 Exhibit 47 without the commentary for now, understanding 14 that at the end of the hearing this may be very useful. 15 MR. HISER: Madam Hearing Officer, this is Eric 16 Hiser on behalf of NMOGA. While I don't disagree, to some 17 extent, with where you are recommending that we go, I 18 don't believe that would be appropriate to remove this 19 exhibit. And the reason is that it's referred to 20 certainly in the testimony of a number of the NMOGA 21 witnesses, but also by a number of the other parties, and 22 so it is a critical part for the administrative record 23 because you cannot understand the testimony of the other 24 parties. And so I think striking it is inappropriate. 25 I do think that we could leave it in for the
34 1 is make sure that Ms. Witherspoon understands that she'll 2 be invited to, you know, provide her comment at the right 3 time. And to the extent we need to draw out a little more 4 qualification, for example, or you would have very 5 specific objections about a technical statement and 6 whether, for example, she was qualified to make it, I'd 7 like to address that at the time she's giving her 8 testimony. 9 MS. KATZ: That's sounds good, Madam Hearing 10 Officer. Thank you. 11 HEARING OFFICER ORTH: All right. Thank you. 12 Let's see. There was Clean Air Advocate's motion to 13 strike the commentary in NMOGA's Exhibit B and Exhibit 47. 14 And here, let me just offer -- I think the -- I'm just 15 looking, for example, right now at Exhibit 47. This is 16 very close to something I would invite the parties to do 17 at the end of the hearing. That is to say, in your, sort 18 of, closing arguments or your post-hearing submittal, tell 19 the Board what change you would like to make in each 20 section, and then identify the testimony or exhibits that 21 supports each of those changes right below it. 22 Those of you who have been through a triennial 23 review hearing with me, and that's several of you, know 24 that I think that's the way it is easiest for the Board to 25 follow every party's proposal. And I may or may not -- at	36 1 purposes of the redlines, and that we will then at the end 2 of this hearing, if you would be amenable to that, file an 3 evidentiary version of it, which would cross-reference 4 those pieces of it that have been properly shown to be 5 evidentiary, as opposed to a statement of reasons for the 6 change. And then that could become an evidentiary 7 exhibit, which we would move at that point, if that would 8 be acceptable to you and the other parties. 9 HEARING OFFICER ORTH: I see your hand, Ms. Fox, 10 but I'm going to talk a little bit further with Mr. Hiser. 11 So, Mr. Hiser, if I'm going to recommend that the Board 12 disregard this commentary at this point, again, I would 13 recommend that the Board look at it after the hearing when 14 you've got record citations to it. But if I'm going to 15 recommend that they disregard this, and in my mind there's 16 a distinction between what has been filed in the 17 administrative record, which I don't feel I have the 18 authority, for example, to destroy, if you will, or simply 19 remove. I mean, it was filed, it's there. 20 Having said that, I'm wondering if it would be 21 more helpful, again, knowing that it's there, it was filed 22 on May 6th, 2021, to have a substitute B and a substitute 23 47, that could also be part of the record so that the 24 Board didn't have to go through the mental exercise of 25 reading past it all.

37 1 MR. HISER: Madam Hearing Officer, obviously, 2 we'll do as you direct, but to the extent that witnesses 3 refer to, you know, the original document, that creates 4 problems in the understanding of the expert testimony that 5 is presented in direct and rebuttal. 6 HEARING OFFICER ORTH: Ms. Fox, do you have 7 something to add here? 8 MS. FOX: Thank you, Madam Hearing Officer. I 9 was going to make the same suggestion that you just made, 10 and that is that NMOGA file a substituted Appendix B and a 11 substituted Exhibit 47, for exactly the reason you stated. 12 And that is, so that anybody looking at those exhibits 13 doesn't have to make their way through the comments. 14 I think the extent to which this is an issue for 15 NMOGA, it's an issue that it has brought on itself. And 16 it had an opportunity to cure with its rebuttal testimony, 17 because this objection, I did raise this objection during 18 our prehearing conference. And so I think the fact that 19 NMOGA's witnesses referred to Exhibit 7, and it's a prior 20 Exhibit 7 that's going to be substituted, and a little bit 21 of a glitch there for the witnesses, I -- I think that 22 that, again, is sort of a problem they brought on. And I 23 think the record is much cleaner if they file a 24 substituted Appendix B and a substituted Exhibit 47, so 25 it's clear from the record that the commentary in those	39 1 filed it's part of the underlying record proper. I am 2 asking you to submit the revised exhibits so that I don't 3 have to continue to remind the Board to disregard 4 something that was filed maybe just a little too early. 5 MR. HISER: Very well. 6 HEARING OFFICER ORTH: Thank you very much. 7 My understanding is there was one other motion. 8 It was filed yesterday, and was a motion to strike the 9 testimony of Professor Villa. Because that motion was 10 filed yesterday and UNM has not had -- excuse me -- Center 11 for Civic Policy and NAVA has not had an opportunity to 12 respond to it, and I think it's going to be a while before 13 we get to Professor Villa's testimony, in my mind it is 14 too early to address that motion this morning. Okay. 15 Anything else from counsel? I'm just going to 16 pause for a moment. Anything else from counsel? 17 MR. ROSE: Madam Hearing Officer? 18 HEARING OFFICER ORTH: Mr. Rose? 19 MR. ROSE: We had identified earlier in this 20 proceeding, I guess last week is earlier -- maybe it was 21 this week. There was -- about exhibits and testimony that 22 there was at least a question about admitting testimony 23 and exhibits en masse, without necessarily offering them 24 individually. We identified a number of exhibits and the 25 testimony related to them. We objected to -- and I don't
38 1 exhibits is struck. 2 HEARING OFFICER ORTH: Okay. Thank you for that. 3 Mr. Hiser, if -- I really think it would serve the Board 4 to get your redline -- your proposed redline without the 5 commentary, that I have to ask them to disregard. And 6 again, I think this will be terrific in about two months, 7 but I think it's premature now. 8 MR. HISER: So, Madam Hearing Officer, do you 9 want us to file a revision of the two exhibits, or do you 10 want us to file new exhibits? Because we need to preserve 11 page numbers and other things like that. We simply can't 12 move stuff because it will cause all the line numbers to 13 shift. 14 HEARING OFFICER ORTH: I see. So if you remove 15 the commentary, but leave the line numbers, the line and 16 page numbers alone, will that be easiest for us as we all 17 sort of walk through it? 18 MR. HISER: Yes, we can do that. We'll file this 19 as revision one of each of those two exhibits, which will 20 delete the commentary. Although, my understanding is that 21 you're leaving the original document in place in case 22 somebody needed to refer to it to understand the experts. 23 HEARING OFFICER ORTH: Exactly. I'm not removing 24 the original document from the record proper. Based on my 25 reading of the Board's rulemaking procedures, having been	40 1 know whether it's something you want to address now or 2 after opening arguments or in the context of 3 admissibility, when those exhibits are being offered. It 4 may be prudent, because they all read -- all of the 5 objections relate to a single point -- that maybe we 6 address those after we get to opening arguments, but 7 before testimony is offered. So I think that may be the 8 most prudent way to do it, but just wanted to alert you 9 that that's still pending as well. 10 HEARING OFFICER ORTH: Thank you very much for 11 that reminder. I do have that in my short stack here 12 surrounded by boxes and a short stack of documents. I -- 13 I did note that a number of the parties had no objection 14 to any of the exhibits, but that NMOGA and IPANM had 15 objections to certain of the exhibits. So when we got, 16 for example, to the Department's presentation, I was going 17 to invite Ms. Katz to offer the exhibits that could be 18 admitted en masse, if you will, and then have a discussion 19 about the exhibits that we need to have some -- we just 20 need to make a record as to the objections and have some 21 argument about it before ruling. So thank you for that. 22 Anything else? I'll pause for just a moment in 23 the event party counsel would like to identify any other 24 issues. Okay. So let's begin with opening statements. 25 I'm going to invite that each party has a choice to make

41 1 an opening statement now or to make an opening statement 2 at the beginning of their presentation. So the 3 Department, Ms. Katz, whenever you're ready, please make 4 your opening statement. I will call on the rest of you in 5 the order -- in the order in which I invited your 6 appearances. Ms. Katz, if you would. 7 OPENING STATEMENT BY MS. KATZ 8 MS. KATZ: Thank you, Madam Hearing Officer. 9 The Department is here before you today to 10 propose new rules to regulate emissions of ozone precursor 11 pollutants from the oil and gas sector in New Mexico. 12 These proposed rules are in furtherance of this Board's 13 mandatory duty as provided in the New Mexico Air Quality 14 Control Act, to address rising ambient ozone 15 concentrations across the state. 16 Specifically, the Board is required to adopt a 17 plan, including regulations, to control emissions of ozone 18 precursor pollutants from sources within the Board's 19 jurisdiction, that cause or contribute to ozone levels 20 exceeding 95 percent of the federal National Air Ambient 21 Quality Standards, or NAAQS. The stated purpose of the 22 statute is to provide for attainment and maintenance of 23 the federal standards. 24 Put another way, the goal is to try to avoid a 25 nonattainment designation by the U.S. Environmental	43 1 Bureau's control strategies -- strategies unit. Cindy 2 Hollenberg is the enforcement manager of the Bureau's 3 Compliance and Enforcement Section. Angela Raso is an air 4 dispersion modeler in the Bureau's modeling unit. 5 Brent Ellington is a supervisor with the Bureau's 6 Ambient Air Monitoring Section. Andrew Ahr is the quality 7 assurance manager of the Bureau's Operations Section. We 8 also have Brandon Powell, from our sister agency, the 9 Energy Minerals and Natural Resources Department where 10 Mr. Powell is the chief of the Oil Conversation Divisions 11 Engineering Bureau. 12 We also have some witnesses from our contractors 13 that work on this rulemaking. Ralph Morris is the 14 managing principal of Ramboll Environmental Health Central 15 West Business Unit. Mr. Morris has over 40 years of air 16 quality consulting experience and is one of the original 17 developers of many of the photochemical air quality models 18 that are used to support regulatory decision making in the 19 United States and around the world, including the model 20 that was used to evaluate the ozone impact of Part 50. He 21 is truly one of the top experts in his field. 22 We also have two witnesses from Eastern Research 23 Group, who NMED contracted to help develop the provisions 24 of the rule and estimate the cost and emission reductions 25 from implementation. Brian Palmer is a senior
42 1 Protection Agency under the Clean Air Act and the 2 corresponding burdens on the Department and industry that 3 such a designation would entail. 4 In essence, the legislature wanted any 5 requirements imposed on New Mexico sources for the purpose 6 of controlling ozone levels to be prescribed by this 7 Board, not the federal government. This rulemaking is the 8 first time the Department has taken steps to seriously 9 regulate the oil and gas sector. And it is taking place 10 in the context of a massive expansion of this industry in 11 New Mexico over the last several years. 12 New Mexico is now the second largest oil 13 producing state in the country. Corresponding with the 14 drastic rise in production, the Department's air quality 15 monitors located in closest proximity to the state's two 16 largest oil and gas producing basins, have shown 17 consistently rising ozone concentrations. And that is why 18 we are all here today. 19 Before I go further, I would like to introduce 20 the Department's witnesses who will be testifying before 21 you over the next two weeks, though not all of them are 22 here this morning. Most of you have met Elizabeth 23 Bisbey-Kuehn, chief of the Department's Air Quality 24 Bureau, in previous hearings. 25 You have also met Michael Baca, manager of the	44 1 environmental scientist with ERG where he has worked for 2 25 years. He has 30 years of experience in the 3 environmental consulting industry and has worked on 4 numerous air quality efforts -- regulatory efforts at the 5 federal level. Susan Day is a senior economist at ERG with 6 34 years of experience conducting and managing economic, 7 regulatory and data analyses supporting federal 8 environmental regulations. These witnesses are a stellar 9 team that has worked incredibly hard to provide you with 10 solid justification for adopting the Department's 11 proposal. 12 The proposed rule before you is the result of 13 over two years of outreach and engagement with 14 stakeholders and communities across the state. This 15 process began in 2019, with Governor Lujan Grisham's 16 Executive Order 2019-3 directing NMED and its sister 17 agency, the Energy, Minerals and Natural resources 18 Department to, "jointly develop a statewide enforceable 19 regulatory framework to ensure reductions in oil and gas 20 sector methane emissions and to prevent waste from new and 21 existing sources." 22 Part 50 responds to both the requirements of the 23 Air Quality Control Act, as well as the directives of the 24 Governor's Order, because regulations that reduce 25 emissions of ozone precursors pollutants have the

45 1 co-benefit of reducing methane emissions. 2 Ms. Kuehn will testify regarding the rule 3 development process and the numerous opportunity for 4 stakeholder and public involvement throughout that 5 process. Those opportunities have continued during this 6 formal phase of the rulemaking right up to this day. 7 The Department granted every request by the 8 parties, to meet with us. And we listened to the input 9 and concerns of the stakeholders. We've made every effort 10 to carefully consider and respond to that input as 11 evidenced by the substantial revisions we have made to the 12 rule shown in the redline version filed last week. 13 Now turning to the Department's testimony. 14 Several witnesses will provide background information for 15 testimony on the specific rule requirements. Ms. Raso and 16 Mr. Morris will discuss the chemistry of ozone and how it 17 is formed in the atmosphere. Mr. Ellington and Mr. Ahr 18 will explain the Department's air monitoring system and 19 how data on ozone levels are collected, verified and 20 provided to EPA. They will testify as to how compliance 21 with the NAAQS is established using statistics called 22 design values, and how EPA calculates those values based 23 on the monitoring data. 24 Mr. Baca will testify regarding the Department's 25 ozone attainment initiative, which was undertaken to	47 1 far too restrictive reading of the statute and it runs 2 contrary to the statute's obvious intent to keep the state 3 in compliance with federal ambient air quality standards. 4 You will hear from Mr. Baca that the ozone 5 monitors are located within air quality control regions 6 established by EPA. These regions do not follow county 7 lines, nor do the oil and gas bearing formations where the 8 target sources are located. And importantly, any 9 nonattainment designation, if that were to come about, 10 would not necessarily follow those lines. The Department 11 has used county lines for the purpose of establishing 12 well-known boundaries within which the rule applies, and 13 has proposed inclusion of all counties with a significant 14 number of emission sources that are within the air quality 15 control regions with monitors that have been exceeding 95 16 percent of the standard. This approach fully aligns with 17 the language and intent of the statute. 18 To support this rulemaking, the Department 19 contracted with Ramboll, the top modeling firm in the 20 country, to conduct regional photochemical modeling 21 predicting the effects of the rule on ozone 22 concentrations. Mr. Morris will testify to that extensive 23 effort and the results, which clearly demonstrate that 24 this rule will achieve meaningful reductions in ozone 25 concentrations that could make the difference between an
46 1 address the rising ozone concentrations in the state, and 2 to support the Board in carrying out its duties under the 3 Air Quality Control Act. Mr. Baca will explain the 4 Department's participation in EPAs Ozone Advance Program, 5 including the development of the Ozone Path Forward Plan 6 for submission to EPA. 7 The Department is proposing that the Board adopt 8 the Ozone Path Forward to meet the plan requirement of the 9 statute. That plan includes voluntary measures as well as 10 mandatory measures in the form of regulations. This 11 rulemaking is the first of the mandatory measures outlined 12 in the Ozone Path Forward Plan. 13 After this rulemaking, the Department will be 14 proposing regulations to address ozone precursor emissions 15 from the transportation sector by establishing vehicle 16 emissions standards. As Ms. Ely and I told you a couple 17 of months ago, these proposed regulations are under active 18 development and the Department will be back before you 19 later this year with its petition to formally initiate 20 that rulemaking. 21 Now, you will hear from witnesses from industry 22 that the statute constrains the Board to regulating only 23 sources in those counties that have an ozone monitor 24 located within their boundaries that is registering design 25 values in excess of 95 percent of the NAAQS. This is a	48 1 attainment or nonattainment designation, or a lower or 2 higher nonattainment classification. 3 The results of the modeling as well as the 4 voluminous technical support documents and work products 5 generated by Ramboll have been posted on the Western 6 Regional Air Partnership's website since May for review by 7 stakeholders and the public. Additionally, at NMOGA's 8 request, the Department arranged for Mr. Morris to provide 9 the modeling files, consisting of over 8 terabytes of 10 data, to NMOGA's modeling expert so that he could review 11 the underlying assumptions structuring the model. It is 12 important for you to note that the modeling conducted by 13 Ramboll assumed that all model sources were in compliance 14 with existing permit limits and federal regulations. 15 Cindy Hollenberg, of the Bureau's Compliance and 16 Enforcement Section, will testify regarding widespread 17 compliance problems across the industry in recent years, 18 that it resulted in the known release of millions of 19 pounds of excess emissions. Given the proposed rules 20 numerous provisions designed to aid industry and the 21 Department in assurance -- ensuring compliance, it is 22 likely that the rule will have an even greater impact on 23 ozone concentrations than what is shown by the modeling. 24 To assist with developing the provisions of the 25 rule itself, the Department contracted with Eastern

49 1 Research Group, a national environmental consulting firm 2 that frequently works with EPA on federal regulatory 3 efforts. To develop the rule requirements, the Department 4 and ERG drew upon the work of the methane advisory panel 5 convened under the Governor's Executive Order, as well as 6 existing regulatory provisions and information from other 7 states and EPA. Using data from the Air Quality Bureau's 8 environmental database, ERG compiled equipment 9 inventories, which were used to develop estimates of costs 10 and emissions reductions for the rules. 11 These inventories cost estimates and emission 12 reductions are thoroughly documented in numerous 13 spreadsheets, which also include detailed explanations of 14 the data. NMED posted this documentation on its website 15 in early June so that all stakeholders had access to it in 16 developing their technical testimony. 17 Ms. Kuehn's testimony details the equipment and 18 processes used target -- targeted by each section of the 19 rule and the specific applicability emission standards, 20 monitoring and recordkeeping requirements for those 21 sources. 22 Mr. Palmer discusses the requirements and 23 supporting technical data from other state and federal 24 regulatory efforts that formed the basis for the emissions 25 standards proposed in each section and the estimated costs	51 1 representations they are making in this proceeding. 2 This rule does contain important provisions to 3 provide regulatory relief for smaller independent 4 operators. Ms. Kuehn and Ms. Day will testify regarding 5 the small business facility definition in the rule, the 6 data that support that definition, and how it limits the 7 requirements that small operators must comply with. 8 IPANM dislikes this definition and seeks to have 9 the Board return to the approach proposed in the 10 Department's first prepetition draft of the rule, which 11 broadly exempted all low-producing wells from the 12 requirements of the rule. But that approach was 13 ultimately rejected because it simply leaves too many 14 emissions on the table and is not tailored to small 15 independent operators. Low production does not 16 necessarily equal low emissions or low overall company 17 revenues. 18 The Department has repeatedly asked IPANM to 19 engage with our data and suggest ways to improve the small 20 business facility definition. For instance, they could 21 propose different thresholds that would apply to more of 22 the companies they claim should be included, or different 23 ways of calculating those thresholds, but they have simply 24 refused to do so. 25 The rule also provides relief for smaller lower
50 1 and emissions reductions from implementation of those 2 requirements. 3 NMOGA and IPANM have submitted testimony citing 4 the costs associated with the rule as a reason for the 5 Board to significantly limit the reach of the rule or to 6 outright reject it. NMOGA even commissioned its own 7 economic analysis from Juan Dunham, owner of a New York 8 City-based consulting firm, Gorilla Economics. In 9 contrast to the extensive data, thorough documentation, 10 and detailed explanations provided by the Department in 11 support of its cost -- cost estimates and modeling, 12 Mr. Dunham's ten-page analysis is severely lacking in 13 supporting data, explanations and transparency regarding 14 his model. This analysis reads less like comprehensive 15 expert testimony intended to fully inform the Board, and 16 more like lobbying material designed to induce fear in the 17 legislature and generate media headlines. And on that 18 score, it succeeded. 19 While clearly an effective lobbying piece, this 20 study does not come close to being sufficient for serious 21 consideration by the Board as the testimony from the 22 Department and other parties witnesses will show. The 23 fact that NMOGA was willing to submit this material as 24 expert technical testimony for the Board to rely on should 25 make you question the validity and reliability of other	52 1 emitting facilities by establishing emissions thresholds 2 throughout each section of the rule that exempts sources 3 with low emissions from compliance with the requirements. 4 And there are flexibilities provided throughout the rule 5 that allow operators to determine the best way to achieve 6 compliance based on their particular operations. 7 One example is an alternative compliance plan 8 that can be proposed for Department approval, to allow 9 operators to achieve compliance with required emissions 10 reductions across their entire fleet of equipment rather 11 than on a source-by-source basis. 12 Will there be impacts on industry if the Board 13 adopts -- adopts this rule? Yes. Any new regulation will 14 necessarily entail costs to the regulated community. Will 15 there be public health and environmental impacts and costs 16 to industry in the state if EPA designates these areas as 17 nonattainment for the ozone NAAQS? You can bet on that. 18 Failure of the Board to act, while it may delay 19 such costs, will not avoid them. If the Board does not 20 take action to address sources of ozone precursors, the 21 federal government will. The Department believes, and the 22 testimony will demonstrate, that the proposed rule before 23 you is reasonable and workable for both industry and the 24 Department and appropriately balances the regulatory 25 burdens on industry against the interests of the state in

53 1 complying with federal air quality standards, and most 2 importantly, the interests of communities in reducing 3 harmful air pollution that is detrimental to public 4 health, welfare and the environment. 5 The Department thanks you for your service and 6 looks forward to putting on its case. 7 HEARING OFFICER ORTH: Thank you, Ms. Katz. 8 Ms. Fox, would the Clean Air Advocates like to 9 make their opening statement at this time? 10 MS. FOX: Yes, ma'am. 11 OPENING STATEMENT BY MS. FOX 12 MS. FOX: Good morning, Madam Hearing Officer, 13 Madam Chair and members of the Board. I am Tannis Fox, 14 with Western Environmental Law Center here today with my 15 co-counsel, David Baake. We thank you for your time 16 during this proceeding. 17 This rulemaking is one of the most complex, if 18 not the most complex, that has come before this body. And 19 we appreciate the significant effort and resources this 20 hearing will take. We represent nine parties in this 21 proceeding: Conservation Voters New Mexico, Diné 22 C.A.R.E., Earthworks, National Parks Conservation 23 Association, National -- Natural Resources Defense 24 Council, San Juan Citizens Alliance, Sierra Club, 350 New 25 Mexico and 350 Santa Fe. For shorthand, we refer to our	55 1 productive discussions with Oxy USA, Inc., one of the top 2 oil and gas producers in the state. In our rebuttal 3 testimony, our coalition and Oxy came to agreement on a 4 number of proposals, including on all four of our initial 5 proposals, with some modifications from our direct filing. 6 And since our rebuttal filings, we have also had 7 productive discussions with the National Park Service and 8 are very pleased that the park service supports our 9 completions, pneumatics and tank measurement proposals. 10 We believe that our proposals supported by an 11 expanded and diverse coalition that includes the top 12 producer and the federal government, deserves serious 13 consideration by the Board. And that adoption of our 14 proposals, combined with NMED's proposed rules, would put 15 New Mexico on the map with nation-leading rules, as 16 promised by the Governor. 17 I'd like to summarize our proposals and the 18 testimony we will present and support. First, we propose 19 more frequent leak detection and repair inspections for 20 LDAR at oil and gas facilities that are located 1000 feet 21 within homes, businesses and schools. Our proximity 22 proposal, as we call it, is modeled after a rule already 23 adopted in Colorado, and is set forth in Section 116 of 24 the proposed rule. 25 More frequent LDAR inspections translate into
54 1 clients as "Clean Air Advocates." 2 All of these organizations share an interest in 3 making sure the rules adopted by the Board are as strong 4 as possible in order to reduce ozone precursors that 5 create harmful ground level ozone, reduce methane, an 6 extremely potent greenhouse gas that contributes 7 significantly to our planet's warming, and protect public 8 health, especially that of frontline communities most 9 impacted by oil and gas operations. 10 The ozone precursor Rule put forth by Secretary 11 Kenney and the Environmental Department staff is a strong 12 rule and we appreciate their work over the last two years 13 that has gotten us here today. Governor Lujan Grisham has 14 lead the way through her commitment to pass, "the 15 country's toughest methane and air pollution -- air 16 pollution rules." 17 We would like to see the Governor's commitment to 18 passing the strongest rules in the nation translated into 19 the final rules adopted by the Board. In our direct 20 testimony, Clean Air Advocates join forces with the 21 Environmental Defense Fund, Civic -- Center for Civic 22 Policy, and NAVA Education Project, to put forth four 23 proposals that strengthen NMED's proposed rule in 24 significant ways. 25 And since our filing, we engaged in highly	56 1 greater emissions reductions. Relying on EPA technical 2 documents, NMED estimates, for example, that if conducting 3 EPA Method 21 inspections on a quarterly basis, translates 4 to an 83 percent reduction in emissions from -- the 5 emissions from leaks and that monthly inspections 6 translate into a 92 percent reduction. These are huge 7 emissions reductions and we know that leaks from oil and 8 gas operations are a major source of emissions and air 9 pollutants in New Mexico. 10 In support of our proximity proposal, you will 11 hear from Lee Ann Hill. Ms. Hill has a Master's in Public 12 Health from the University of California, Berkeley, and is 13 a senior scientist of Physicians, Scientists and Engineers 14 for Healthy Energy. Ms. Hill provides extensive testimony 15 on the public health impacts of volatile organic 16 compounds, or VOCs, including VOCs like benzene that are 17 hazardous air pollutants. She'll discuss peer-reviewed 18 studies indicating that living in close proximity to oil 19 and gas facilities results in increased health risks and 20 impacts from elevated pollution levels, and that these 21 health risks decrease further away from these operations. 22 These impacts include increased risk for cancer, 23 and risk to humans' respiratory, neurological and 24 cardiovascular systems. Our proximity proposal helps 25 protect frontline communities who bear the brunt of the

57 1 impacts of oil and gas operations. EDF estimates 35,000 2 New Mexicans live within 1000 feet of oil and gas sites, 3 and that over half are people of color and indigenous 4 people. This Board has the authority to consider 5 environmental justice impacts of this rule, and our 6 proximity proposal helps mitigate impacts to communities 7 of color who live close to oil and gas operations. 8 For our second proposal, you will hear about 9 these impacts from one of those people who lives next to 10 oil and gas operations, Don Schreiber, a rancher from Rio 11 Arriba County. There are 122 wells in and around 12 Mr. Schreiber's land and 33 within one mile of his home. 13 Mr. Schreiber understands the impacts of oil and gas 14 firsthand, and will provide testimony in support of our 15 proposal to require reduced emissions completions or green 16 completions during development and redevelopment of a 17 well. 18 Mr. Schreiber will explain to the Board how as 19 early as 2008, he and his wife reached agreement with 20 ConocoPhillips to undertake reduced emissions completions 21 on their land; however, after Hilcorp Energy Company 22 acquired ConocoPhillips' assets in 2017, it has refused to 23 continue ConocoPhillips' program -- reduced emissions 24 completions. 25 Our reduced emissions completions proposal has	59 1 over 118,000 pneumatic controllers in New Mexico that emit 2 an estimated 30,000 metric tons of VOCs and 108,000 metric 3 tons of methane. EDF analysis indicates pneumatic 4 controllers are the second largest source of methane from 5 oil and gas in the state. Any rule designed to reduce 6 ozone precursors must include a robust schedule to 7 retrofit pneumatics. 8 The proposal we put forth before the EIB has been 9 negotiated with Oxy. The retrofit schedule is somewhat 10 less aggressive than that in Colorado, but it is 11 nonetheless, much stronger than what NMED proposes, and it 12 is technically and financially feasible for operators, as 13 demonstrated by Oxy's support in Colorado's adoption of 14 the somewhat more aggressive schedule. 15 Dr. McCabe will also explain why our pneumatics 16 proposal set forth in Section 122 is cost effective, while 17 NMOGA's cost estimates are inaccurately high, and why 18 NMED's cost estimates -- cost estimates are conservatively 19 low. 20 Finally, Dr. McCabe will explain our fourth 21 proposal to the Board. This proposal would require tanks, 22 new or modified oil and gas sites, to use what we call a 23 storage vessel measurement system. This system gauges the 24 quantity and quality of liquids into a storage vessel or a 25 tank. Typically, liquid levels in a tank are measured by
58 1 already been adopted by Colorado and would require capture 2 of emissions during all stages of completion and 3 recompletion of wells, instead of allowing emissions of 4 pollutants to be vented into the atmosphere. EDF 5 technical witness, Tom Alexander, will explain why this 6 proposal set forth in newly-proposed Section 127 is 7 technically feasible. 8 Our third proposal would accelerate retrofitting 9 of pneumatic controllers with what are called zero bleed 10 controllers or controllers that do not emit gas and the 11 air pollutants contained within. Clean Air Advocates is 12 fortunate to have the expertise of a national expert, 13 Dr. David McCabe, who helped develop our proposal, and 14 will testify -- testify in support of it. 15 Dr. McCabe is an atmospheric scientist with the 16 Clean Air Task Force. He has a Bachelor of Arts in 17 Chemistry from the University of Chicago, and a Ph.D. in 18 physical chemistry from the University of Colorado. He 19 has also been heavily involved in the methane rulemakings 20 in Colorado. 21 As Dr. McCabe will explain in his direct 22 testimony, pneumatic controllers are big emitters. Some, 23 powered by gas, are actually designed to emit gas and the 24 pollutants they contain, and many malfunction and emit 25 pollutants. The Clean Air Task Force estimates there are	60 1 opening a thief hatch on top of the tank, inserting a 2 gauging device, and samples are collected by opening the 3 hatch, but when the hatch is opened, air pollutants, 4 including VOCs and methane are released. Since gauging is 5 often performed frequently and the hatch is opened every 6 time a measurement is taken, these emissions can be 7 significant. Our proposal is set forth in Section 123 and 8 the rule is modeled after Colorado's rule and is cost 9 effective for operators. 10 That rounds out Clean Air Advocates' proposals 11 and list of witnesses. Thank you again for your time and 12 attention during this important proceeding. This 13 rulemaking is critically important for New Mexico. We 14 have a number of counties that are bumping up against the 15 ground level ozone standard. This has real implications 16 for public health. And we have a methane hotspot in the 17 Four Corners area, which is real implications for climate 18 warming. But make no mistake, this rulemaking has 19 significance beyond our borders. EPA and other states are 20 watching this proceeding. New Mexico's rule will serve as 21 a model for the federal government and other states in 22 adopting their own rules to prevent formation of ground 23 level ozone, combat climate change and protect public 24 health. 25 We urge the Board to follow through on the

61 1 Governor's commitment to pass nation-leading rules. Thank 2 you again for your time. We look forward to putting on 3 our case before you. 4 HEARING OFFICER ORTH: Thank you, Ms. Fox. 5 Ms. Paranhos, would you like to make your opening 6 statement now? 7 MS. PARANHOS: Yes, Madam Hearing Officer. Thank 8 you very much. 9 OPENING STATEMENT BY MS. PARANHOS 10 MS. PARANHOS: Good morning, members of the 11 Board, Madam Hearing Officer. Thank you for the 12 opportunity to present an opening statement in this 13 important proceeding. 14 I am Elizabeth Paranhos, Counsel for the 15 Environmental Defense Fund. EDF is a national membership 16 organization with more than 2.5 million members residing 17 throughout the U.S., and more than 18,000 residing in New 18 Mexico. Many of these members are deeply concerned about 19 the pollution emitted from oil and natural gas sources. 20 EDF brings a strong commitment to sound science, 21 collaborative efforts with industry partners and 22 market-based solutions to our most pressing environmental 23 and public health challenges. EDF strongly supports the 24 proposed NMED rules. We commend the agency on proposing a 25 strong rule, and recognize and appreciate the tremendous	63 1 technological innovation and are clear and workable. 2 As evidence is presented, EDF will show steep 3 reductions in ozone precursor emissions are necessary in 4 order to protect the health of New Mexico residents and 5 its environment from unhealthy and dangerous levels of 6 ground level ozone. At the same time, New Mexicans are 7 experiencing increased drought, wildfires and unhealthy 8 air pollution caused by a warming climate. 9 Methane emissions co-emitted with VOCs from oil 10 and gas facilities are a primary contributor to climate 11 change; in particular to near-term warming. As NMED has 12 pointed out, reducing VOC emissions will also reduce 13 methane emissions, since the two pollutants are 14 inextricably tied and co-emitted as components of natural 15 gas. 16 The Governor directed NMED to promulgate rules to 17 reduce methane emissions. While the primary aim of this 18 rulemaking is to reduce VOCs and offset the nitrogen that 19 contribute to ground level ozone, it is incontrovertible 20 that VOC reductions will also reduce methane as a 21 co-benefit. 22 EDF's first witness will be Maureen Lackner, an 23 economist for EDF. Ms. Lackner's opinion is that the 24 Dunham report has overstated costs, fails to account for 25 the social costs of oil and gas pollution and is based on
62 1 amount of time and resources NMED staff has put into its 2 rule and supporting documentation. We appreciate NMED's 3 adoption of our proposal to require gas-powered pneumatic 4 controllers be included in equipment leaks inspections or 5 LDAR, as well as other revisions NMED has made in response 6 to our and our partners' suggestions. 7 That being said, we, in conjunction with other 8 NGO partners and Oxy USA, propose a suite of improvements 9 that will further reduce pollution emitted from oil and 10 gas facilities in a cost effective and technically 11 feasible way. We believe that by adoption of these 12 improvements, the Board can finalize a rule that will meet 13 Governor Lujan Grisham's goal of promulgating a 14 nationally-leading set of requirements. 15 These joint improvements include more frequently 16 leak inspections at occupied places, such as homes and 17 schools, as Ms. Fox just reviewed. A proposal to hasten 18 and increase retrofits of gas-powered pneumatic 19 controllers, a requirement to control emissions from 20 flowback vessels during well completions and 21 recompletions, installation of a tank measurement system 22 on new storage tanks, and additional clarifications and 23 revisions to the leak detection and repair and tanks 24 provisions, intended to ensure the benefits of the 25 requirements match the cost. The rule has allowed for	64 1 a faulty model that lacks transparency and has not 2 undergone a sensitivity analysis. Ms. Lackner will tell 3 you she agrees with NMED's witness, Susan Day, that you 4 should give the report no weight. 5 You will next hear from Dr. Tammy Thompson, a 6 senior air quality scientist with EDF. Dr. Thompson will 7 explain that NMED's ozone modeling demonstrates that VOC 8 emissions from oil and gas sources are contributing to 9 unhealthy levels of ozone in New Mexico, and that adoption 10 of rules to reduce emissions, as NMED and EDF have 11 proposed, are necessary to protect air quality. 12 Next, you will hear from Dr. David Lyon, a senior 13 scientist at EDF. Dr. Lyon will discuss some of the 14 definitions EDF proposes, in conjunction with Oxy and our 15 other NGO partners for Section 116, the equipment leak 16 requirements. Dr. Lyon will next describe the results of 17 16 peer-reviewed studies, including five in the Permian 18 Basin in New Mexico, that demonstrates the cost 19 effectiveness of frequent leak inspections as proposed by 20 NMED and as proposed by the EDF, NGO, Oxy, LDAR proximity 21 proposal that requires increased inspections at public 22 occupied places, such as homes and schools. 23 The studies, which are based on direct 24 measurements, demonstrate that the pollution emitted from 25 oil and gas facilities in New Mexico is magnitudes higher

65 1 than traditional inventory suggests. For example, one 2 study conducted by Robertson, et al., suggests that New 3 Mexico Permian Basin methane emissions are ten times 4 higher than operator reports to EPA, pursuant to EPA's 5 greenhouse gas reporting rule. 6 As Dr. Lyon will explain, one reason for the 7 difference between operator-reported emission estimates 8 and measured emissions is the failure of traditional 9 inventory estimations to account for improperly operating 10 conditions or super emitters. Dr. Lyon will explain that 11 such super emitters are mainly intermittent, which 12 indicates the need for frequent, comprehensive inspections 13 to detect leaks from equipment. 14 You will also hear from Dr. Lyon the results of 15 the studies, including one in the Permian Basin, that 16 demonstrates the need for recurring leak inspections at 17 low producing wells. You heard a little bit about this 18 topic from Ms. Katz earlier. These studies indicate low 19 production wells are likely a disproportionately large 20 share of U.S. Oil and gas emissions. 21 Dr. Lyon will explain why the Board should reject 22 NMOGA's proposal to reduce the inspection frequency for 23 wells that have a potential to emit of less than ten tons 24 per year of VOCs, in light of the findings of these 25 scientific studies.	67 1 children under the age of five, 19,000 people of color, 2 including over 5,800 Native Americans and 4,500 adults 65 3 years or older. 4 You will hear additional testimony from 5 Dr. Thompson regarding the scientific underpinnings of our 6 LDAR proximity proposal. Ms. Thompson will underscore 7 that adoption of our proposal to increase inspections at 8 well sites near occupied places, such as homes and 9 schools, will result in the removal of additional tons of 10 VOCs, thus helping New Mexico avoid falling into ozone 11 nonattainment. 12 Second, she will discuss results of a Colorado 13 Department of Health study that found that persons living 14 within 2000 feet of oil and gas production well sites are 15 at risk of developing cancer, as well as noncancer adverse 16 health impacts due to exposure from toxic VOCs. 17 Tom Alexander, a former vice president with 18 Southwestern Energy, will provide additional support for 19 the joint LDAR proximity proposal to increase inspections 20 at well sites located near homes, based on his 18 years of 21 experience working for Southwestern Energy. Southwestern 22 Energy's experience implementing their own LDAR program 23 helped the company reduce leaks, optimize operations and 24 develop preventative maintenance procedures. 25 Moving on to the topic of liquids unloading,
66 1 Next you will hear from Hillary Hull. She is 2 director of Research and Analytics for EDF. Ms. Hull will 3 provide evidence demonstrating the cost effectiveness of 4 NMED's proposed LDAR requirements and of the EDF, NGO, Oxy 5 LDAR proximity proposal. Ms. Hull will explain that NMED 6 has likely underestimated the costs of frequent leak 7 detection and repair requirements, not overestimated 8 costs, as NMOGA suggests. 9 Further, per Ms. Hull's analysis, the per well 10 site cost of conducting semiannual inspections is 30 11 percent lower than NMED's estimate, making NMED's estimate 12 of cost effectiveness of LDAR quite conservative. 13 Ms. Hull will also note that our joint LDAR proximity 14 proposal will increase reductions associated with NMED's 15 proposed rule by 3,600 tons of VOCs, at an average cost of 16 only \$894 per ton of VOCs reduced, within the proposed 17 1000 foot boundary of our LDAR proximity proposal. 18 Ms. Hull will also discuss the important 19 co-benefits associated with increased inspections. Per 20 her analysis, additional inspections at homes, playgrounds 21 and schools will remove 14,300 tons of methane and 150 22 tons of hazardous air pollutants, including benzene, from 23 the air annually. Importantly, these reductions will help 24 protect the air breathed by over 35,000 New Mexicans 25 living near oil and gas wells site, including 2,700	68 1 Mr. Alexander will provide testimony in support of NMED's 2 proposed requirements to use a form of artificial lift or 3 other approved control technologies to reduce venting from 4 liquids unloading activities and minimize the need for 5 manual unloading. 6 With respect to controlling emissions from 7 natural gas-powered pneumatic controllers, one of our 8 proposals, both Dr. Lyon and Mr. Alexander will express 9 support for the joint EDF, NGO, Oxy proposal that 10 increases the pace and amount of conversion to nonemitting 11 pneumatic controllers. Mr. Alexander will note that the 12 EDF, NGO proposal is economically reasonable and practical 13 as technologies exist today to eliminate emissions from 14 pneumatic controllers. 15 Mr. Lyon's testimony is rooted in the results of 16 scientific, peer-reviewed studies that demonstrate high 17 emissions from malfunctioning gas-powered pneumatic 18 controllers. While frequent inspections can help reduce 19 emissions from malfunctioning pneumatic controllers, the 20 surest way to eliminate emissions is to replace 21 gas-powered devices with nonemitting ones. 22 You will also hear from Mr. Alexander, support 23 for our joint proposal to require operators install tech 24 measurement systems on new storage tanks and to allow for 25 the use of alternative approved control technology to

69 1 control emissions from low emitting storage tanks. 2 Ms. Hull will testify to the reasonableness of the NMED 3 cost effectiveness estimate for its tank control 4 requirements. 5 And lastly, you will hear from Mr. Alexander, 6 support for our joint proposal with Oxy, to require 7 operators to control emissions from flowback vessels 8 during completions and recompletions. Mr. Alexander will 9 explain why the joint proposal is safe, economically 10 feasible and technically practical. 11 Again, I greatly appreciate the opportunity to 12 testify on this important rulemaking. I appreciate the 13 hard work of NMED's staff, this Board and Madam Hearing 14 Officer. Thank you. 15 HEARING OFFICER ORTH: Thank you, Ms. Paranhos. 16 Mr. Jaynes, would you like to make an opening 17 statement now or reserve? 18 MR. JAYNES: Thank you, Madam Hearing Officer. 19 OPENING STATEMENT BY MR. SHIMANEK 20 MR. SHIMANEK: I'm going to speak for the Center 21 for the Civic Policy and the NAVA Education Project. I'd 22 like to thank you -- 23 HEARING OFFICER ORTH: Mr. Shimanek, hold on. 24 Please introduce yourself so that the court reporter knows 25 who you are.	71 1 actively improve the quality of life for Native American 2 communities and to protect Native American culture. NAVA 3 Education Project is committed to social, economic and 4 environmental justice principals that advance a healthy 5 and sustainable community for the Native American families 6 living in New Mexico. 7 We will be presenting three witnesses in this 8 hearing. Mr. James Povijua will be representing the 9 Center for Civic Policy. Mr. Joseph Hernandez will be 10 representing the NAVA Education Project. And Professor 11 Cliff Villa will be supporting both the Center for Civic 12 Policy and the NAVA Education Project. 13 Mr. Povijua, of the Center for Civic Policy, and 14 Mr. Hernandez, of the NAVA Education Project, will both 15 testify about their respective organizations' missions, 16 the relevant work with underserved communities, and why 17 this has led their organizations to join with the 18 Environmental Defense Fund, the Clean Air Advocates and 19 other parties in supporting amendments to strengthen the 20 proposed regulations. They will speak about the 21 particular importance of provisions to require more 22 frequent leak detection and repair on facilities in close 23 proximity to where they live, work, and their children go 24 to school. 25 Professor Cliff Villa will be supporting this
70 1 MR. SHIMANEK: Sorry. Yes, my name is Travis 2 Shimanek. I am a clinical law student from the University 3 of New Mexico School of Law, National Resources, 4 Environmental Law Clinic, representing the Center for 5 Civic Policy and the NAVA Education Project. 6 Thank you, Madam Hearing Officer and Madam Chair 7 and the Environmental Improvement Board members for your 8 time and effort in this matter. The focus of our clients 9 is to ensure that the regulations provide strong public 10 health protections from ozone precursors, especially those 11 in marginalized and underserved communities, such as 12 Native American populations, those with limited English 13 proficiency and for people who live near oil and gas 14 wells. 15 Some background on the Center for Civic Policy 16 and NAVA Education Project. The Center for Civic Policy 17 empowers and amplifies historic -- historically-excluded 18 and underrepresented New Mexicans for increased voter 19 participation to increase equitable representation in the 20 communities. The Center for Civic Policy is here to make 21 sure that their communities' interests are equitably 22 representative -- represented in this matter for the 23 rulemaking hearing. 24 Similarly situated is the NAVA Education Project, 25 whose missions is to unite community stakeholders to	72 1 testimony by offering rebuttal testimony from an 2 environmental justice standpoint in response to the 3 testimony of several parties that have proposed both 4 strengthening and weakening leak detection and repair 5 regulations. He will testify on the facts presented by 6 different witnesses will relate to the disparate impacts 7 on local communities, and how that in turn, relates to the 8 Board's requirements to consider potential disparate 9 impacts of any regulation on the marginalized population. 10 We would just like to reiterate the environmental 11 justice perspective we believe the Board needs to 12 consider, and the disparate impacts they have the power to 13 mitigate for local communities through the adoption of our 14 strengthened proposals. 15 Thank you. That concludes my opening statement. 16 HEARING OFFICER ORTH: Thank you very much, 17 Mr. Shimanek. 18 Mr. Vimont or Vimont, on behalf of National Park 19 Service. 20 OPENING STATEMENT BY MR. VIMONT 21 MR. VIMONT: Okay. There, my video came up. 22 My name is John Vimont; I'm the acting chief of 23 the National Park Services Air Resources Division. It's a 24 national office and serves parks throughout the national 25 park system. Several national park service units in and

73 1 near New Mexico measure exceedances of the ozone air 2 quality standard, particularly Carlsbad Caverns National 3 Park. 4 We will provide information on enhanced 5 measurements of volatile organic compounds, VOCs, at -- 6 and nitrogen oxides taken at Carlsbad Caverns National 7 Park, which strongly support the need for this rulemaking. 8 We will also provide some suggestions that will strengthen 9 the rule. I appreciate the opportunity to testify before 10 the Board today and I appreciate all of your work in this 11 area. Thank you. 12 HEARING OFFICER ORTH: Thank you, Mr. Vimont. 13 Let's turn then to WildEarth Guardians. Mr. Nykiel and 14 Mr. Timmons, would you like to make an opening statement 15 now? 16 MR. NYKIEL: Yes, please, Madam Hearing Officer. 17 OPENING STATEMENT BY MR. NYKIEL 18 MR. NYKIEL: Thank you, Madam Hearing Officer, 19 Madam Chair, members of the Board. My name is Matt Nykiel 20 and with me today is Daniel Timmons. Together, we -- we 21 represent WildEarth Guardians. Thank you for the 22 opportunity to present this opening statement regarding 23 the Environment Department's proposed rules, which are 24 critical to protecting the public health and environment 25 of New Mexico.	75 1 Responding to this serious pollution problem and 2 to actions by the Trump Administration, which stripped 3 federal air quality protections that New Mexico relied on, 4 the New Mexico State legislature and Governor Michelle 5 Lujan Grisham authorized and directed this Board to adopt 6 New Mexico-based rules to address the unique air pollution 7 challenges of this state. 8 You will hear a good deal of testimony regarding 9 air quality modeling and future projections, but the data 10 on the ground today is very clear. New Mexico has a 11 serious ozone problem, and no longer can this state afford 12 to simply do the bare minimum by meeting the basic federal 13 standards. The Ozone Attainment Initiative, including the 14 proposed rules at issue in this proceeding must go farther 15 if this Board is serious about its mission to protect 16 public health. 17 With over a decade of experience working on air 18 quality rules that address ozone pollution in states 19 including New Mexico, Colorado and Utah, Guardians' 20 witness, Mr. Nichols, will highlight the important context 21 within which the Board will consider these rules, 22 including the fact that the oil and gas industry is a 23 predominant source of ozone precursor emissions, the 24 importance of adopting strong rules the first time, to 25 avoid the persistence of ozone pollution other states have
74 1 As you will hear from our witness, Mr. Jeremy 2 Nichols, the Department's proposed rule is a good step 3 forward, but could be made better. Mr. Nichols will 4 present evidence supporting three targeted proposals to 5 improve the rules by providing greater public 6 transparency, comprehensively addressing precursor 7 emissions, and providing a backstop to prevent the ozone 8 problem from getting worse. 9 WildEarth Guardians is a nonprofit conservation 10 organization, whose mission is to protect and restore the 11 wildlife, wild places, wild rivers and health of the 12 American West. Guardians was founded and is headquartered 13 in Santa Fe and represents thousands of members and 14 supporters, many of whom live in New Mexico and deeply 15 hope this Board adopts the strongest possible rules that 16 will finally get New Mexico's ozone problem under control. 17 To be clear, getting New Mexico's ozone problem 18 under control isn't just about complying with an abstract 19 numeric standard. It's about protecting public health and 20 giving people the peace of mind that they can safely 21 breathe the air in New Mexico. As you will hear today, 22 for the past several years, New Mexicans across the state 23 have been breathing air that is demonstrably unhealthy. 24 So far, 2021 has been no different, as the state continues 25 to wrack up ozone exceedances.	76 1 experienced even after adopting similar rules, the 2 alarming number of ozone exceedances recorded just this 3 year, and how increasing ozone pollution and the 4 increasing impacts of climate change are forecast to feed 5 on each other. 6 Given the context of the ozone problem in New 7 Mexico, Mr. Nichols will present three proposals to 8 strengthen the Department's rules. First, Mr. Nichols 9 will testify in support of a rule that requires all owners 10 and operators to submit a semi-annual report to NMED, 11 identifying deviations from the rules in Part 50. 12 Reporting requirements like these are an essential feature 13 of most, if not all, pollution control rules. And these 14 reports would provide all members of the public 15 transparent access to whether or not a particular operator 16 or facility who may be in their community or their 17 backyard, is following the rules. 18 As the Department's rules are currently drafted, 19 only the Environment Department can request this 20 information, if they do so at all. Mr. Nichols will 21 explain how limiting access to this information, to a 22 chronically underfunded and short-staffed state agency, is 23 risky. And how the Department's discretion to request 24 these report could lead to inequities in oversight and 25 enforcement, and perpetuate environmental injustice

77 1 against historically marginalized communities. 2 Second, Mr. Nichols will testify in support of a 3 rule amendment that accounts for sources of ozone 4 precursor emissions that have historically been 5 overlooked. Mr. Nichols will explain how a recent report 6 conducted by the UCLA Institute of the Environment and 7 Sustainability identified the likelihood that a 8 significant number of oil and gas facilities emit ozone 9 precursors during wellhead construction, and that the 10 emissions during this phase of development are not 11 currently accounted for or regulated by the Environment 12 Department. 13 Finally, Mr. Nichols will testify in support of a 14 common sense rule that authorizes the Environment 15 Department to deny new air quality permits for oil and gas 16 facilities that would add more ozone precursors to areas 17 of New Mexico that already exceed 95 percent of the ozone 18 standard. Mr. Nichols will explain that despite years of 19 ozone exceedances in New Mexico, year after year the oil 20 and gas industry continues to secure new air quality 21 permits that allow more ozone precursors to be emitted, 22 making the ozone problem harder to solve. 23 This rule would create a critical backstop that 24 accounts for the facts that many of the new rules proposed 25 by the Environment Department do not become effective	79 1 OPENING STATEMENT BY MR. DE SAILLAN 2 MR. DE SAILLAN: Thank you, Madam Hearing 3 Officer. Good morning, Madam Chair, Ms. Vice Chair, 4 members of the Board and Madam Hearing Officer. My name 5 is Charles de Saillan. I'm a staff attorney with the New 6 Mexico Environmental Law Center and I'm representing the 7 New Mexico Environmental Law Center in this proceeding. 8 We appreciate the opportunity to appear before you today 9 in this very important rulemaking proceeding. New Mexico 10 Environmental Law Center is a nonprofit public interest 11 law firm that represents environmental community 12 organizations on a wide variety of environmental and 13 environmental justice issues here in New Mexico. The New 14 Mexico Environmental Law Center has approximately 750 15 members. We have been a participate -- a participant in 16 this rulemaking proceeding from its inception. We also 17 participated in the related rulemaking proceeding before 18 the Oil Conservation Commission, addressing waste from oil 19 and natural gas production. 20 We're -- we were represented on the Methane 21 Advisory Panel, which developed the technical groundwork 22 for these regulations. We also submitted lengthy comments 23 on the oil conversation division draft waste rules. And 24 we gave public comment and expert technical testimony 25 during the Oil Conservation Commission hearing on those
78 1 immediately. As you will hear from the industry parties, 2 it will take owners and operators time to reduce their 3 pollution levels according to the new rules. And while 4 we're waiting for that, the rules should ensure the ozone 5 problem doesn't keep getting worse, and, therefore, more 6 difficult to solve. 7 We thank the Board for the opportunity to provide 8 an overview of our case and we thank you for your time and 9 consideration of strong New Mexico-based rules that will 10 finally start to address this state's ozone problem and 11 provide New Mexicans an essential comfort; that the air 12 they breathe is clean and healthy. 13 As you consider these rules, we encourage you to 14 bear in mind your charter, set forth in New Mexico's 15 Environmental Improvement Act, Section 74-1-2 NMSA, which 16 directs -- which directs you, as EIB members, to "ensure 17 an environment that in the greatest possible measure will 18 confer optimal health, safety, comfort and economic and 19 social well-being on its inhabitants, will protect this 20 generation, as well as those yet unborn from environmental 21 threats -- from health threats posed by the environment, 22 and will maximize the economic and cultural benefits of a 23 healthy people." Thank you. 24 HEARING OFFICER ORTH: Thank you, Mr. Nykiel. 25 Mr. de Saillan?	80 1 rules. 2 We submitted detailed comments to the Environment 3 Department on earlier drafts of the proposed ozone 4 precursor rule that we're discussing here today. The 5 proposed regulations would address emissions of oxides of 6 nitrogen, or NOx, and volatile organic compounds, or VOCs, 7 from oil and natural gas production. These pollutants are 8 harmful to human health. 9 For example, one of the VOCs that emitted from 10 oil and gas production, is benzene, a known human 11 carcinogen. NOx and VOCs react with sunlight and oxygen 12 in the atmosphere to form ozone. Ground level ozone is 13 also harmful to human health. The co-benefit of these 14 regulations would be the reduction of methane emissions 15 from oil and natural gas production. Methane is a potent 16 greenhouse gas. It is approximately 86 times more potent 17 than carbon dioxide over a 20-year period. New Mexico 18 Environmental Law Center generally supports the rules that 19 the Environment Department has proposed in this 20 proceeding, with a few exceptions. We thank the 21 Environment Department and its staff for the tremendous 22 amount of work that has gone in to these proposed rules. 23 There are a few issues that I would like to 24 address. The first issue is the exemptions for 25 lower-producing wells. Now, as originally drafted, the

81 1 rules would have exempted so-called "stripper" wells. The 2 rule also would have exempted facilities that emit less 3 than 15 tons per year of VOCs. The proposed rule that the 4 Environment Department submitted to the Board no longer 5 includes those exemptions. We support the Department's 6 decision on this issue and we appreciate the Department's 7 actions. 8 Our witness, Theresa Pasqual, of the Acoma 9 Pueblo, will address this issue from the perspective of 10 the Native communities in the San Juan Basin. We, 11 likewise, oppose the industry's proposals to exempt wells 12 that produce less than 15 barrels, or barrel equivalents 13 per well per day. 14 The second issue is the phase out of pneumatic 15 controllers. We generally support the Environment 16 Department's proposal to phase out pneumatic controllers, 17 which are operated by natural gas. These devices are 18 among the largest sources of emissions from oil and gas 19 production. We agree with the Department that these 20 devices need to be replaced with zero emission 21 controllers. Those are -- those that are operated by 22 compressed air or by electricity. However, we think that 23 the Department's proposal to require replacement only by 24 2027 is much too long a time period. 25 We agree with and support the proposal of the	83 1 requirements. 2 We, therefore, support the proposal of Clean Air 3 Advocates, the Environmental Defense Fund, the Center for 4 Civic Policy, the NAVA Education Project to require 5 enhanced LDAR for facilities that are within 1000 feet of 6 specified occupied areas. These occupied areas include 7 schools, businesses and homes. 8 On several of these points, I -- I want to say 9 that we support the agreement that has been reached among 10 Oxy USA, EDF, Clean Air Advocates, and some of the other 11 organizations. We commend these parties for reaching an 12 agreement on these issues. We urge the Environment 13 Department to also support this agreement and we urge the 14 Board to adopt the terms of this agreement. 15 Finally, I'd -- it is important to emphasize that 16 the emissions of harmful air disproportionately affect 17 Native Americans and Hispanic communities in New Mexico. 18 Our witness, Theresa Pasqual, will also address this 19 issue. I would like to add that, although, we are playing 20 a relatively minor role in this proceeding, that should 21 not be taken as an indication of the importance of this 22 rule, in our view. It is of critical importance. 23 We thank the Board for its time and effort in 24 this complex, but very important rulemaking proceeding. 25 We urge the Board to adopt a strong ozone precursor rule.
82 1 Environmental Defense Fund and Clean Air Advocates and 2 other organizations, to require replacements within six 3 months. 4 The third issue is the result -- excuse me. The 5 third issue is the use of storage vessel measuring 6 systems. The current practice is to measure liquids in 7 tanks by opening a hatch -- a thief hatch, and take the 8 measurement manually. This results in substantial 9 releases of pollutants into the atmosphere. We support 10 proposals to require automatic measuring systems be 11 installed in storage vessels. 12 The fourth issue is the installation of reduced 13 emission completion equipment. Again, we support the 14 proposals of several organizations to require the use of 15 equipment for the completion and reworking of wells 16 undergoing hydrologic fracturing, equipment that will 17 reduce the emissions of harmful pollutants into the 18 atmosphere. 19 The next issue is leak detection or repair, or 20 LDAR. Leaking equipment is another major source of 21 emissions of harmful air pollutants from oil and gas 22 production. Leak detection and repair requirements are 23 extremely important to reduce emissions, especially for 24 people who live, go to school, and work near oil and gas 25 production facilities. We support the strong LDAR	84 1 Thank you. 2 HEARING OFFICER ORTH: Thank you, Mr. de Saillan. 3 We have been going for an hour and 45 minutes. Now, some 4 of us were on the platform at 8, we need a break. Let's 5 take a brief break until 11 a.m. When we return I will 6 invite NMOGA to make its opening statement and proceed 7 through the rest of the service list. Thank you. 8 (Recess taken from 10:46 a.m. to 11:00 a.m.) 9 HEARING OFFICER ORTH: All right. Who will be 10 offering -- oh, there's Mr. Hiser. Whenever you're ready, 11 Mr. Hiser, your opening statement for NMOGA. 12 OPENING STATEMENT BY MR. HISER 13 MR. HISER: Thank you, Madam Hearing Officer. 14 Good morning, Madam Hearing Officer, Madam Chair, members 15 of the Board and the other parties. My name is Eric 16 Hiser, with the firm of Hiser Joy. I'm here with Brandon 17 Curtis, also from that firm. We represent the New Mexico 18 Oil and Gas Association, or NMOGA, as you've heard us 19 referred to many times throughout this hearing. We also 20 are assisted by Dalva Moellenberg from Gallagher & Kennedy 21 in Santa Fe, as co-counsel. 22 Well, who is NMOGA? NMOGA is the New Mexico Oil 23 and Gas Association, and it comprises over 1000 operators 24 who are engaged in the oil and gas business in New Mexico. 25 And together, they represent more than 90 percent of the

85 1 total oil and gas activity in New Mexico. We've been 2 engaged in this rulemaking since its inception, and NMOGA 3 established a working group with over 80 member companies 4 that provided expert support in many areas and 5 participated in the process before the Department. 6 What are NMOGA's objectives in this rulemaking 7 and in this hearing? Well, contrary to the suggestion 8 that may be coming across from other parties, including 9 the Department and the environmental groups, NMOGA's 10 suggestion is not that we do not need those rules, but, 11 rather, that the rules should be crafted effectively to 12 balance the emissions reductions while maintaining the 13 viability of the important oil and gas industry to New 14 Mexico. 15 We've been actively engaged in trying to provide 16 proactive, cost effective solutions, and improve practices 17 to help reduce the emissions of ozone precursors. NMOGA 18 has also brought to NMED's attention, and will bring to 19 this Board's attention during this hearing, some certain 20 common things, such as requirements that are technically 21 infeasible, we just can't do them, where they may be 22 unworkable because of the way the oilfield works or the 23 particular way the requirement is phrased. 24 We'll also address situations where the 25 requirement may be, in our view, cost prohibitive, or	87 1 Many of the rules that are brought by the Environment 2 Department are rules that have already been adopted 3 elsewhere by the Federal EPA and are being adopted and 4 customized to New Mexico. In this case, the Department, 5 consistent with that legislative directive, is bringing a 6 brand-new rule that's breaking ground. That's good news 7 in part, and shows New Mexico's leadership, but it also 8 means that you, as the Board, bear a higher burden of 9 vetting all of those aspects of the rule to make sure that 10 they are necessary and appropriate, because we don't have 11 the benefit of a different agency already having done that 12 in a different context. 13 You will also see that this rule is different 14 because it's costly. You've heard that the industry 15 expert, John Dunham's estimate is about 3.2 billion. I 16 note that even the NMED witnesses have conceded the cost 17 is perhaps in the 1.5 billion range. Whether it's 1.5 or 18 3 billion, this is a very expensive rule compared to many 19 that come before this Board. And that means that it's 20 appropriate to pay attention to questions where we may be 21 able to keep effective regulation, but do so at lower cost 22 to New Mexicans. 23 The other thing that I think is important about 24 this rule is that it has somewhat limited impact on those 25 ozone levels. It's not a silver bullet that's going to
86 1 where the emissions benefit is trivial for the cost 2 incurred. Finally, there are some safety issues that we 3 believe this Board should consider before it proposes to 4 adopt certain regulations that may raise safety concerns 5 for our workers in the field. 6 We have also, however, proposed and agreed to a 7 series of cost effective solutions and best management 8 practices that will greatly reduce the emissions of ozone 9 and nitrogen oxide precursors. And we think that that 10 should not be overlooked as part of NMOGA's efforts in 11 this rulemaking. 12 We're pleased that many of our technical 13 feasibility and some of the workability and cost 14 prohibitive issues were addressed in the Department's 15 September 16th, 2021 revisions. So what are going to be 16 some of the themes that you, as Board members, will hear 17 throughout this testimony? 18 The first is that this is an ozone rule, and that 19 our focus needs to remain on the statutory authority and 20 the prevention of ozone and its health effects. You may 21 hear things about climate change and methane, but that's 22 really sort of peripheral to the fundamental thrust of 23 this rule. 24 Second, as you've already heard, this rule is 25 different than many of those that come before this Board.	88 1 solve all of New Mexico's ozone attainment issues, as much 2 as we and industry wish it would as well. 3 NMED's modeling that Ralph Morris will present 4 shows the maximum impact is about 1.5 part per billions in 5 the Northwest at one monitor location, and that's about 6 .8 part per billion, at best, in the Southeast. And the 7 average reduction is only about .8 part per billion in the 8 Northwest, and about .2 in the Southeast. 9 So we're spending a fair amount of money here for 10 not a lot of emissions reductions. The NMOGA witness, 11 Dennis McNally, from Alpine Geophysics, will testify that 12 the NMED model shows that the VOC controls reduce a 13 fraction of that total ozone amount by a controlled .1 14 and .3 part per billion across the state. So the VOC 15 component of this rule in particular is troubling to NMOGA 16 because it doesn't seem like there's a lot of bang for the 17 money that the state is being asked to put in to that 18 state and industry. 19 And Dennis McNally will also provide some 20 overview about how the industry's ozone and VOC 21 contributions are really fairly small in the overall 22 picture. You've heard a number of statements that we are 23 predominant cause of ozone formation in the State of New 24 Mexico. And this is not true. The predominant cause is 25 clearly transport, and clearly things like biogenic VOC

89 1 emissions that occur regardless of the industry's 2 presence. And it's important to see how all of the 3 picture and pieces of that puzzle fit together as you are 4 making decisions about the future of the state. 5 So, in general, we're generally supportive of the 6 proposals that you have from the New Mexico Environment 7 Department. We're asking this Board to give some 8 particular scrutiny to some of the VOC controls to make 9 sure that they are actually going to deliver the promised 10 benefits at a reasonable cost. 11 So let's turn, then, to some of the witnesses and 12 the issues that will be before the Board. First, there is 13 a threshold issue, which we've heard, which is that it's 14 not apparent to us at NMOGA that Rio Arriba or Chaves 15 County should be included in this rule. The current 16 design value of Rio Arriba County is less than 95 percent 17 of the NAAQS. We believe that's below the threshold 18 established by the legislature, and that's a trend in Rio 19 Arriba County, not just a one-time occurrence. 20 For Chaves County, we don't believe that an 21 adequate showing has been made that it is, in fact, 22 causing or contributing or over 95 percent of the 23 threshold. And we commend that to you, you'll hear some 24 additional testimony from Dennis McNally on that issue. 25 Turning to the substantive provisions of the	91 1 On the other hand, we do not agree with the 2 National Park Service's suggestion that we should bring in 3 all engines, regardless of size, and regulate them at 4 these levels. We believe for reasons that our expert, 5 Justin Lisowski, who is a designer and installer of these 6 engines, that that's not possible under the design and 7 capabilities of current technology for those smaller 8 horsepower engines; basically, those under 1000 or 500 9 horsepower. And so that's important. There's also some 10 workability issues in terms of the giant expansion and the 11 number of effective units. That's enough on engines and 12 turbines. 13 What's NMOGA's next concern? We also have 14 concern about the equipment monitoring provisions. Here, 15 we are pleased to say that the Department has moved in a 16 very good direction, and we're down to now discussing a 17 date and time stamp. This is in Section 112. You'll hear 18 from our expert, John Smitherman, a long time industry 19 executive, about the difficulties in trying to integrate 20 new components into electronic database systems where you 21 have to work with inherited systems already in place. 22 But you'll hear our commitment to trying to make 23 that work, and the only thing that we really need here is 24 a little bit more time to achieve that work, that 25 integration. As presently set forth by the Department,
90 1 proposal, you will see that Section 113, on engines and 2 turbines is one of considerable concern to NMOGA. This is 3 the section that has a lot of opportunity to be very 4 disruptive to field operations, and we want to highlight 5 for you a couple of factors that are important to making 6 this part of the rule very effective. 7 The first is, we need to have the ability to 8 relocate engines and turbines as the decline in production 9 sets in, so that we don't leave overly large engines at a 10 well site. We need to be able to move those so that we 11 can reduce the emissions. We are pleased the NMED, in the 12 September 16th proposal, has recognized this. 13 Similarly, it's important for us that we have the 14 ability to take engines and turbines into the shop and 15 work on them there, where we can do better maintenance 16 than being forced to do them out in the field. And NMED's 17 latest revisions would allow that as well. We think those 18 are very significant and important developments. 19 We believe that the current September 16th 20 proposals in Table 1 and Table 2 on the emissions limits, 21 represent the maximum that is currently technically and 22 cost effectively achievable, but we are supportive of 23 those levels found in Tables 1 and 2. And we think that 24 Table 3 on turbines is also very close, with a couple of 25 minor tweaks that you'll hear about from Solar Turbines.	92 1 they would adopt their rules in January, and we're 2 supposed to have them in place by April of the same year. 3 If anybody has ever worked with IT, we know IT doesn't 4 integrate that quickly, so there will need to be a little 5 bit more time for us to pull that off. 6 Our third issue is storage vessels addressed in 7 Section 123. You'll see by looking at the positions of 8 the parties, that there was never a verbal agreement on 9 the threshold for existing storage vessels. What you 10 didn't hear is that industry and the Department, and I 11 think the environmental groups, are all in agreement on 12 the two ton per year threshold for new facilities. So 13 there is agreement on that. 14 Why are we concerned about existing? We believe 15 that the cost estimates that we are seeing overlook the 16 single tank battery, and that when you look at single 17 tanks, of which there are quite a few in New Mexico, the 18 resulting costs are simply unacceptable and would drive 19 many of those tanks out of being used, and hence require 20 shutdown of the associated facility. 21 One of the things that you heard from EDF and 22 other groups is a number of academic studies, where they 23 say this is achievable. Well, you'll hear from NMOGA's 24 expert, Adam Meyer, whose job is to design and install 25 these tanks, that the costs are, in fact, much higher than

93 1 those historic studies, which may be from ten years ago, 2 are currently, and that many of these things are not 3 achievable. And so we think that you will find that to be 4 very interesting testimony. 5 We will also propose that by tweaking the 6 thresholds, this Board may be able to achieve the vast 7 majority of the emissions reductions, but cut the cost by 8 perhaps 50 percent or more, while achieving substantially 9 the same results. And that's why when we talk about 10 crafting effective rules that are also cost effective, 11 this would be an example of that. 12 We also don't disagree with automatic tank 13 gauging for new tanks. That's consistent with the OCD 14 rules, and we remain supportive of that as well, although, 15 we're not sure that the current NMED rules need to say the 16 same thing as the OCD rule does. 17 Our fourth issue is hydrocarbon liquid transfers. 18 We're pleased that there has been good movement over the 19 course of this discussion, and that NMOGA and NMED 20 basically have consulted and agreed on the draft that's 21 been presented to this Board. It excludes produced water, 22 which is not a significant source of hydrocarbons, which 23 was NMOGA's principal concern, and I think the principal 24 concern of many of the other people that you may hear from 25 on the industry side in this proceeding.	95 1 believe it's very controversial. 2 And we do have a concern about the proposed line 3 power, short-term phase-out because there is not adequate 4 time, six months, for us to do all of that work. And 5 you'll hear testimony from both Mr. Smitherman, our 6 industry executive and also from Adam Meyer, who is our 7 facility design and construction engineer, about why it 8 takes more time, particularly right now in the 9 post-pandemic era, where supplies are short. 10 Moving on then, you did hear that there is a 11 distinction between industry and NMED beyond production 12 percent or controller count. We have a small preference 13 for the production-based approach because it better aligns 14 with our budgeting processes; hence, it's easier for us to 15 implement and we think that creates benefits in the long 16 run for the state as well. 17 A few more issues and then we'll be done with the 18 industry position. The last of these -- or the next is 19 produced water. Our produced water, the initial proposal, 20 which was a two-ton per year cap, is very problematic. It 21 could potentially stop the recycling of produced water and 22 require industry to shift back to drinkable water or fresh 23 water for all of its activities. We regarded this as a 24 very big problem because industry has been committed to 25 recycling its water and reducing its impact on freshwater
94 1 Industry, in its part, has agreed to adopt a 2 number of good operating practices to reduce the emissions 3 from these procedures. We think this is an example of a 4 good rule and we note that it includes beneficial 5 provisions like not requiring pipelines -- facilities that 6 pipeline their liquids, to install additional controls 7 when those aren't needed. 8 Moving to pneumatics; we're going to be talking a 9 lot about pneumatics. I think the Board has probably 10 already gathered that. There is little apparent agreement 11 amongst the proposals, but I think there's actually a fair 12 amount of actual agreement on what should be done. 13 Industry has agreed to phase out high bleed controllers, 14 that's part of our proposal that you will see. Industry 15 has agreed to the phase out of controllers on the schedule 16 that was proposed by NMED. 17 What our concerns are and what we ask the Board 18 to keep in mind, is that we need to have a program that 19 doesn't result in surprises. And a surprise occurs if a 20 controller failure at a facility requires us to suddenly 21 have to try to retrofit that entire facility at one time 22 out of its planned order. We need to preserve certain 23 gas-based controllers for certain applications for health, 24 safety and process reasons, where there's not a good 25 solution. This was accepted in Colorado. We don't	96 1 resources in New Mexico. The new proposal that's been 2 brought forward on September 16th is substantially better. 3 Industry is in substantial agreement with it and we 4 commend this direction for the state moving forward. 5 On equipment leaks and fugitive emissions, or 6 LDAR, that you've heard about, there's little agreement on 7 the thresholds or frequencies for this, and we do have 8 some problems with the general story that has been brought 9 to this Board by the environmental groups and perhaps even 10 Occidental Petroleum. And that is that the current 11 approach is based on the study that we would represent is 12 historic industry practice, but they don't represent 13 current industry practice. And they don't reflect the 14 waste rules that were adopted by Oil Conservation 15 Division. 16 Those rules require us to have much more frequent 17 inspection and AVO inspections -- audiovisual olfactory 18 inspections of our facility, sometimes as frequently as 19 weekly, but never less often than monthly. And so we're 20 on these facilities, and now we're looking specifically 21 for those leaks. And we believe that these leaks that 22 have reached the level of super-emitters that you've heard 23 about, that they would be detected by this and fixed much 24 more rapidly than has historically been the case. 25 This means that some of the gains that have

97 1 historically been seen by LDAR, may not be seen as we move 2 into the New Mexico context. And we believe that that 3 factor needs to be looked at and considered as we evaluate 4 what should be the frequency for LDAR rules in New Mexico. 5 In light of the OCD rule -- (unintelligible) and 6 fenceline communities, with community partners, we 7 appreciate the division -- (unintelligible.) 8 HEARING OFFICER ORTH: Mr. Hiser, I'm sorry. You 9 froze about 30 seconds ago. 10 MR. HISER: Was I starting the leak detection or 11 where was I? 12 HEARING OFFICER ORTH: Hold on. Ms. DuBois, 13 where was he? 14 MR. HISER: Hopefully, our court reporter hasn't 15 froze. 16 HEARING OFFICER ORTH: Ms. DuBois, I can see that 17 you're unmuted, but we're not hearing anything from you. 18 Perhaps you could put his last few words in the Chat and 19 I'll read it. We're not hearing anything from you. 20 COURT REPORTER: Can you hear me now? 21 HEARING OFFICER ORTH: Yes. Yes, thank you. 22 COURT REPORTER: Somehow the WebEx changed my 23 microphone earlier, it put up a message. Anyway, okay. 24 So the last part was, "We believe that that factor needs 25 to be looked at and considered as we evaluate" --	99 1 tend to show, in the testimony of Mr. Morris, as 2 Mr. McNally will explain. And so we think these deserve 3 careful scrutiny. 4 We'd also ask the Board to consider the fact that 5 when we launch a regulation, and we set those words into 6 the law, we don't know how they're necessarily going to be 7 interpreted. And so care needs to be executed in making 8 sure that we don't criminalize potentially inadvertent or 9 unavoidable occurrences in the oilfield. 10 And so there will be some cases that you see in 11 NMOGA's comments, or otherwise, where we express concerns 12 about concepts like leak-free or no emissions, because 13 that may not be able to happen. And you will hear our 14 witnesses talk about that. And we'd direct your attention 15 to that so we don't set an unacceptable legal bar on those 16 issues. 17 With that, Madam Hearing Officer, Madam Chair, 18 members of the Board, that reaches the conclusion of the 19 New Mexico Oil and Gas Association's opening comments. I 20 appreciate your time, and I am, very, very grateful for 21 your consideration of what is going to be a long and 22 complex hearing, and I salute you for your volunteering to 23 do this job for the citizens of New Mexico. We are all 24 indebted to you. Thank you so much. 25 HEARING OFFICER ORTH: Thank you very much,
98 1 MR. HISER: Perfect. Thank you, Ms. DuBois. 2 I appreciate that. 3 CONTINUED OPENING STATEMENT BY MR. HISER 4 MR. HISER: We believe what these factors with 5 the OCD rule and the fact that we are out weekly or 6 monthly conducting this audiovisual olfactory review 7 suggests that there will not be issues with super emitters 8 that are not caught and captured rapidly, and that, 9 therefore, the cost effectiveness estimates based on 10 historic practices may not be accurate moving forward for 11 New Mexico. We'd like the Board to keep these factors in 12 mind as it moves to consider the leak detection and repair 13 requirements. In light of all of these elements, we 14 believe the industry proposal is satisfactory and 15 sufficient to protect our frontline and fenceline 16 communities and our community partners. 17 In summary, members -- Madam Hearing Officer, 18 Madam Chair, members of the Board, this is a big rule. 19 It's asking you to make substantial changes to how the oil 20 and gas industry has worked in the past. And we're 21 committed to working with you to achieve a good level of 22 controls of ozone and its precursors, nitrogen oxides and 23 volatile organic carbons, moving forward. We have 24 concerns about the extent of the volatile organic compound 25 controls given the small benefits that NMED's own modeling	100 1 Mr. Hiser. Before I call on the Independent Petroleum 2 Association, two things: two of the Board members may 3 have misunderstood earlier, when I asked the panelists who 4 are lawyers and party representatives not to share their 5 screen unless they were speaking. And, obviously, to keep 6 themselves muted if anyone else is speaking. 7 Because we haven't seen two Board members on 8 screen, whom I know have been with us from the beginning, 9 Member Cates and Member Duval -- Dr. Duval. Member Cates 10 and Member Duval, if you have the bandwidth and are 11 comfortable being on video, we'd love to -- we'd love to 12 have you join us on video. And if your connection becomes 13 spotty or you need to step away, please feel free to go 14 dark, that's fine, but I didn't want to be misunderstood. 15 So thank you. Let's see. I see Member Duval now. Thank 16 you. 17 All right. And the other thing -- sorry, that 18 was one thing. The other thing is there was a question in 19 the Chat to me, from Mr. Colclasure, about whether the 20 order in which I was inviting opening statements -- what 21 the implications of the difference between the order in 22 which I was inviting opening statements and the order in 23 which Ms. Katz reflected witnesses being called in the 24 spreadsheet that you're looking at. 25 I do not -- I am calling for opening statements

101 1 roughly in the order in which we set out the service list. 2 And it does not have any implications whatsoever for the 3 spreadsheet in which the witnesses will be called, and the 4 order of the topics is set out. 5 Oh, and I see Member Garcia now on screen as 6 well. Okay. That -- that was the two things that have 7 come up since we last spoke. 8 So, Mr. Rose, will you be offering an opening 9 statement for IPANM? 10 MR. ROSE: I will, Madam Hearing Officer. And if 11 it's appropriate, I'd like to do it now as opposed to when 12 I call my first witness. 13 OPENING STATEMENT BY MR. ROSE 14 MR. ROSE: Thank you, Madam Hearing Officer. 15 members of the Board, for the record, my name is Louis 16 Rose, I'm an attorney with Montgomery and Andrews here in 17 Santa Fe. And I'm representing the Independent Petroleum 18 Association of New Mexico, which as the name implies, is 19 comprised of independent oil and gas producers in the 20 state. We're not -- we're not dealing with vertically 21 integrated companies, these are companies that produce oil 22 and gas in New Mexico. It includes a number of smaller 23 members, and the membership of IPANM is primarily 24 comprised of procedures in the Northwest part of the 25 state, but it also represents producers throughout the	103 1 in the Act, that is to prevent air pollution and make the 2 Board aware, because it's an area that hasn't been 3 addressed by this Board in some time, is that this Board 4 did regulate oil and gas as one of its earliest 5 regulatory programs. Back in 1974, the Board adopted 6 regulations dealing with -- primarily with gas processors 7 and oil refineries, but also with -- with respect to 8 storage vessels, tanks, those kinds of things. And those 9 regulations were in effect since that time. 10 This Board has also regulated oil and gas through 11 the permitting program, which requires air quality permits 12 for facilities that have a potential to emit more than 25 13 tons per year of any criteria pollutant, and a number of 14 sites within this industry, particularly compressor 15 stations and gas processing facilities, have been subject 16 to permitting authority and requirements since the late 17 1970s. 18 What -- what this is -- what is unique here is 19 that you're being called upon to regulate production 20 facilities. Most of those are below the threshold 21 requiring a permit. A number of them are below the 22 threshold that this Board has established for notice to 23 the Department, that is that Part 73, Notice of Intent 24 requirements, which relate to 10 ton -- which require that 25 any facility that emits or has a potential to emit
102 1 state. 2 And if I might, in terms of trying to shorten the 3 opening statement, we agree with a number of the points 4 raised by Mr. Hiser in his opening statement, concerning 5 the effects of these rules on the ambient ozone 6 concentrations. 7 And first -- and I think it's important to note 8 that -- that what we're doing here is implementing a 9 statute, it's not a new statute, as you've heard. The 10 obligation for this Board to assure attainment and 11 maintenance of the ozone NAAQS has been -- been on the 12 books since the early 1970s, specifically in 2009, the 13 legislature adopted provisions obligating this Board when 14 ambient ozone concentrations reached 95 percent of the 15 federal National Ambient Air Quality Standards, to develop 16 a plan. And that plan was to include regulations, but 17 it's not limited to regulations. That -- that authority 18 was not executed until this proposed rulemaking. The 19 legislature in this last session amended the Act, kept the 20 obligation of this Board to develop a plan, but deleted 21 language that was designed to ensure that technology-based 22 requirement, that is, reasonably available control 23 technology be implemented. 24 And where it left the Board, in essence, is -- is 25 to look at this statute in the context of other provisions	104 1 criteria pollutants in excess of 10 tons per year is 2 required to notify the Department. In that content, this 3 is unique and as -- and as, I think, Ms. Katz pointed out, 4 it's something that this Board has not done, at least with 5 respect to this industry, and probably others since the 6 very inception of the air program. 7 I'd also like to make the Board aware that when 8 it regulated the facilities under -- under the air act, to 9 prevent or abate violations of ambient air quality 10 standards, which the courts have said defines the levels 11 at which air pollution occurs, the Court of Appeals very 12 early on, in 1976 -- and that's still the law -- required 13 that -- said that the Boards's authority, while it's 14 required to assure that the standards are met, that its 15 authority is to adopt requirements that are no more 16 stringent than necessary to protect standards. 17 And you'll hear testimony in this proceeding 18 concerning what effects these emissions have on ambient 19 air quality. IPA's position is that under that statute, 20 first, the Board is obligated to make a determination on 21 whether these sources cause or contribute to levels in 22 excess of 95 percent of the ambient air quality standards. 23 And we believe it's -- it's a more difficult analysis than 24 perhaps has been portrayed. 25 Our analysis is that, impacts of these facilities

105 1 on ambient oil an -- on ambient ozone concentrations, in 2 effect, does not cause or contribute to the levels that 3 they are seeing in the areas of the state that exceed 95 4 percent of the NAAQS. 5 Secondly, we believe that the statute obligates 6 this Board to establish a plan to determine how it's going 7 to assure that the ambient air quality standards are not 8 exceeded. The statute does not explain or give direction 9 to this Board on what needs to be in a plan. Our 10 testimony has alluded to two areas that the Board could 11 look at for guidance as to what the contents of these -- 12 this plan ought to include: that is, obligations for this 13 Board under Section 110 of the Clean Air Act, to have 14 plans to assure that ambient air quality standards are 15 attained and maintained. And also, the requirements of 16 the nonattainment provisions of the Clean Air Act specify 17 plans for areas that do not attain the ambient air quality 18 standards; particularly, what needs to be in both marginal 19 and other designations for exceedances of the standard. 20 You'll hear from our testimony, that we believe the plan 21 as being proposed by ED, meets neither of those 22 requirements. 23 And, finally, we believe that as the statute 24 proposes, that this is an ozone precursor rulemaking. 25 That is, you're looking at and obligated to regulate	107 1 different proceeding needs to be undertaken. As the 2 notice of this proceeding and as the Department's 3 testimony, I think, supports, this is a rulemaking 4 designed to assure ozone concentrations do not exceed the 5 NAAQS. 6 And any consideration by this Board as to methane 7 reductions and predicate -- decisions predicated on 8 methane reductions, we believe, is in error and would be 9 in violation of this statute. 10 Madam Hearing Officer, that -- that concludes my 11 opening statement, and we look forward to participating in 12 this hearing. 13 HEARING OFFICER ORTH: Thank you, Mr. Rose. 14 Mr. Janoe? 15 OPENING STATEMENT BY MR. JANOE 16 MR. JANOE: Good morning, Madam Hearing Officer, 17 Madam Chair and members of the Board. Oxy USA, Inc. 18 supports the goals of the department's rulemaking and 19 appreciates the opportunity to participate in this hearing 20 to provide practical input on the proposed rule package 21 based on Oxy USA's experience operating in the state. 22 Through coordination with the Department and 23 other stakeholders throughout this process, many of Oxy 24 USA's initial concerns have been resolved. However, there 25 are still elements of the rule that Oxy UA believes need
106 1 emissions of nitrogen oxides and volatile organic 2 compounds. We believe that the testimony will -- will 3 prove that the areas we're talking about in the state are 4 what's called NAAQS-limiting. That is, the complicated 5 chemical reaction that creates ground level ozone, which 6 you've heard about, really in areas of this state that 7 were talking about, are really controlled by NAAQS 8 emissions. That is, if you're going to reduce ozone 9 concentrations, the vast majority of those reductions will 10 be created through the reduction of NAAQS emissions, not 11 VOCs. 12 And we believe that the contribution of VOCs, 13 both to the ambient ozone concentrations and to the 14 reductions that have been identified, are minimal at best; 15 and we believe do not justify the degree of controls that 16 the Department is proposing and others are proposing on 17 VOC emissions. 18 We believe that as a result of this hearing and 19 the testimony, you will agree with us that perhaps much 20 less regulation is warranted under this provision. I'd 21 warn the Board, and I indicate that our position's fairly 22 clear that this is not a methane rule. That the statute 23 provides that if the Department chose to regulate methane 24 and methane emissions, or if this Board does, there is 25 provisions of this statute that need to be met and a	108 1 to be clarified or otherwise addressed. 2 Oxy USA's witness, Danny Holderman, is the asset 3 director for the onshore resource and carbon management 4 Delaware Basin business unit for Oxy USA, Inc. 5 Mr. Holderman will address each of Oxy USA's remaining 6 issues with the proposed rule. 7 Among other topics, Mr. Holderman will discuss 8 the changes that Oxy USA believes should be made to the 9 Department's proposed LDAR requirements for low-emitting 10 facilities, including wellhead only facilities, and the 11 Department's proposal for pneumatic controllers. 12 Mr. Holderman will also speak to the need to establish 13 practical and reasonable phase-in timelines for all of the 14 Departments -- excuse me -- proposed requirements. 15 Oxy USA has worked with various stakeholders, 16 including the Environmental NGOs. As representatives for 17 the NGOs have noted, we provided feedback on each of their 18 four main points. We've been able to agree to solution in 19 many cases that work for Oxy USA's operations, with 20 additional edits that Oxy USA will discuss during 21 Mr. Holderman's testimony. Oxy USA's testimony only 22 concerns what is workable and feasible for Oxy USA's 23 operations in the state. We can't say whether it's 24 feasible for every basin or for every other operator in 25 the state; only what is workable and feasible for Oxy.

109 1 Ultimately, Oxy USA appreciates the open dialogue 2 and continued efforts of all stakeholders, and believes 3 that the Department, the NGOs, and industry, can come to 4 agreement on reasonable and practical strategies designed 5 to improve air quality in New Mexico, while maintaining a 6 vibrant oil and gas industry in the state. 7 Madam Hearing Officer, this concludes our opening 8 remarks. 9 HEARING OFFICER ORTH: Thank you very much, 10 Mr. Janoe. 11 Mr. Butzier, will you be making an opening 12 statement? 13 MR. BUTZIER: I will. Thank you, Madam Hearing 14 Officer. 15 OPENING STATEMENT BY MR. BUTZIER 16 MR. BUTZIER: Madam Chair, members of the 17 Environmental Improvement Board, Madam Hearing Officer, 18 good morning. My name is Stuart Butzier, of the Modrall 19 Sperling Law Firm, Santa Fe office. I and my co-counsel, 20 my law partner, Christina Sheehan, of Modrall Sperling 21 Albuquerque office, as well as Whit Swift and others from 22 the national law firm of Bracewell, LLP, will be 23 representing the Gas Compressor Association, also referred 24 as to GCA in this proceeding. 25 In -- in my very short opening statement, I will	111 1 commends NMED for exercising its air quality related 2 authority to propose that EIB help address ozone 3 precursors proactively in this proceeding, as well as in 4 future similar rulemakings it plans to pursue involving 5 other sectors. 6 Even though NMED's offered exhibits suggest the 7 primary sources of ozone precursors that have brought 8 certain counties to within 5 percent of reaching 9 nonattainment status under the federal National Ambient 10 Air Quality standards, or NAAQS, are from places outside 11 of our state, such as Mexico and Texas, or are due to 12 emissions-generating activities outside the oil and gas 13 sector, the GCA recognizes both the authority and general 14 prudence of NMED, in starting to offer the EIB regulatory 15 mechanisms for getting a handle on ozone precursors to 16 ensure our counties remain in compliance with those NAAQS. 17 The GCA is not antagonistic to the general 18 motivations behind NMED's proposed rulemaking and also is 19 very appreciative that NMED has remained opened and 20 attempted to be responsive to reasonable input from 21 stakeholders in the extraordinary and lengthy efforts 22 leading up to this hearing before the EIB. 23 In fact, Madam Hearing Officer and the EIB 24 members will hear a number of GCA witnesses who 25 essentially endorse certain aspects of NMED's latest
110 1 first briefly introduce the GCA, then offer some 2 observations about NMED's proposed rulemaking, and 3 finally, provide some basic context for the several 4 witnesses who will be testifying for the GCA. 5 First, about the GCA: The GCA is an association 6 whose member companies serve the oil and gas industry in 7 New Mexico as well as throughout the United States, by 8 providing compression services and related equipment to 9 oil and gas procedures and midstream companies. The 10 services and equipment provided to the GCA members 11 customers allow for the compression of natural gas, to 12 enhance its customers oil production through gas-lift 13 operations and most commonly, to aid in the transportation 14 of its customers natural gas to and through midstream 15 gathering and gas processing infrastructures, much of 16 which is in remote locations. 17 The natural gas ultimately leaves those 18 facilities and enters into larger natural gas pipeline 19 systems and storage facilities. As such, the GCA members 20 serve a vital function in the New Mexico oil and gas 21 industry, and by extension are state and local communities 22 that benefit from GCA's and the GCA's customers economic 23 activities, including, employment. 24 Second, by way of general observations regarding 25 NMED's proposed rulemaking, the GCA first and foremost,	112 1 September 16 draft of the rulemaking as being sufficiently 2 responsive. 3 Finally, to provide the hearing officer and Board 4 members some context for the witnesses who the GCA will be 5 offering in this proceeding, it might be useful to point 6 out how the GCA has viewed its role in similar proceedings 7 that have occurred at the federal level, as well as in 8 other states, because the GCA offers its several witnesses 9 in the same spirit here. 10 That is, it offers its witnesses in a spirit of 11 cooperation, by lending their technical expertise and 12 expert familiarity with some of the engines and other 13 forms of equipment and processes that are the subject of 14 various aspects of NMED's proposed rulemaking, so that the 15 EIB will be well positioned to balance important policy 16 considerations, avoid arbitrary decision making, and 17 ultimately, do what's best for the citizens of our state. 18 The GCA has its own environmental committee 19 chaired at one time or another by two of the witnesses we 20 will be offering in this proceeding. The key goal of that 21 committee, as well as the GCA itself, is education, both 22 of its member companies to help ensure compliance with 23 applicable law, and to provide regulators with the 24 necessary insights to be able to make reasoned choices 25 and, ultimately, to adopt reasonable and balanced

113 1 regulations addressing this complex and highly technical 2 area of the law. 3 The GCI -- the GCA thanks NMED's counsel and 4 Madam Hearing Officer for the efforts already made to 5 sensibly organize this proceeding. And thanks to EIB 6 members in advance for their attention and diligence in 7 the coming weeks, as it considers and addresses these 8 issues of great importance to the citizens of New Mexico. 9 With that, I will yield this virtual platform to 10 whomever may be next. 11 HEARING OFFICER ORTH: Thank you, 12 Mr. Butzier. 13 Ms. Gutierrez, will you be offering an opening 14 statement for Kinder Morgan? 15 MS. GUTIERREZ: Madam Hearing Officer, yes, I 16 will. And might I ask you provide me permission to screen 17 share? 18 HEARING OFFICER: Yes, just a moment 19 MS. GUTIERREZ: Thank you. 20 HEARING OFFICER ORTH: You should have that 21 privilege now. 22 MS. GUTIERREZ: Can you seen on your screen a 23 PowerPoint? 24 HEARING OFFICER ORTH: Yes. 25 MS. GUTIERREZ: Let me relocate that screen.	115 1 identifying the priority of issues for which Kinder Morgan 2 is asking the Board's support. 3 While it was not on my agenda that I just walked 4 through, we do just want to take a brief moment to thank 5 the Department in particular and Hearing Officer Orth and 6 the other parties for their work in developing a really 7 robust record for the Board's consideration. And we want 8 to thank the Board for diving into all of that work in 9 preparation for this hearing. So let's -- let's jump 10 right in. 11 Kinder Morgan transports natural gas in a safe, 12 efficient and environmentally responsible manner for the 13 benefit of individuals, communities and businesses. In 14 New Mexico, Kinder Morgan operates approximately 3,595 15 miles of transmission pipeline and it owns assets in 23 16 counties throughout the state, including in counties that 17 are the subject of the proposed rules. Kinder Morgan is 18 an important member of the New Mexico community. The 19 company employs approximately 180 individuals, maintains a 20 payroll of over 16.6 million dollars and pays 21 approximately 8.8 dollars annually to local and state 22 taxing bodies. 23 This slide here just provides a visual of the 24 role that Kinder Morgan plays in our communities. The 25 company delivers affordable and dispatchable pipeline
114 1 OPENING STATEMENT BY MS. GUTIERREZ 2 MS. GUTIERREZ: Good morning, Madam Chair, 3 members of the Board, Madam Hearing Officer Orth, Board 4 Administrator Jones, New Mexico Environment Department, 5 and other parties. My name is Ana Gutierrez, with Hogan 6 Lovells and I'm representing Kinder Morgan, Inc., and its 7 subsidiaries and affiliates, El Paso Natural Gas Company, 8 Trans Colorado Gas Transmission Company and Natural Gas 9 Pipeline Company of America. 10 Throughout this hearing I'll be referring to this 11 collective group of companies as Kinder Morgan because 12 that's a mouthful, and each of our technical witnesses 13 will also refer to the companies collectively as Kinder 14 Morgan. 15 Thank you for the opportunity to present an 16 opening statement to you today. And I look forward to 17 engaging on these important issues. As far as an agenda 18 for this presentation, I'm going to spend most of my time 19 providing an introduction to Kinder Morgan and their 20 operations in New Mexico. Dovetailing on that, I'd like 21 to then describe the uniqueness of the transmission 22 segment of the natural gas supply chain. 23 Next, I want to spend just a brief bit of time 24 framing the discussion that we will be having over the 25 course of the next two weeks, and then I'll end by	116 1 quality natural gas both to industrial users and to local 2 distribution companies. The local distribution companies 3 are the city gates for natural gas to be delivered to each 4 of our homes for use in heating, stoves, water heater, all 5 of our daily uses. 6 Kinder Morgan operates in what is referred to as 7 the transmission segment of the oil and gas industry. And 8 I want to give context to that and talk about what makes 9 this segment unique and what distinguishes it from other 10 oil and gas operations. You will see this slide a couple 11 of times throughout our presentation -- presentations and 12 it's intended to help orient us. 13 What this depicts is the entire natural gas 14 system supply chain. And we show this because it's 15 important to understand where Kinder Morgan -- Kinder 16 Morgan's operations take place in this sequence. 17 Transmission compression -- compressor stations are 18 identified as number six on this schematic. Upstream 19 operations, which are identified as numbers one and two, 20 are where the product is extracted. The raw product is 21 then moved by the midstream gathering and boosting 22 segment, numbers three and four, through to the natural 23 gas processing plant, number five. 24 Because of where we sit along the supply chain, 25 Kinder Morgan's operations are distinct in a number of

117 1 ways. Let's walk through some of those distinctions. 2 First, the company transports pipeline quality natural 3 gas. This is referred to as "sweet" natural gas and it 4 has already been processed at the natural gas processing 5 plant, which means that the natural gas has a much lower 6 VOC content than the gas that is produced, transported and 7 processed at well sites, gathering and boosting stations, 8 and natural gas processing plants. 9 To illustrate this point, this slide summarizes a 10 data set that we analyzed. The full data set is available 11 at attachment B to the Kinder Morgan direct testimony. 12 This data was gathered over the past year from gas 13 chromatographs. Kinder Morgan operates somewhere around 14 40 gas chromatograph -- chromatographs in New Mexico that 15 continuously monitor the natural gas. These 16 chromatographs take about two to three samples every hour, 17 which are then averaged to give one numerical block hour 18 average. 19 The reason they monitor the gas so closely is 20 because these are FERC-regulated pipelines, so the company 21 is required by FERC to have certain gas composition for 22 delivery to end users. You will see in this chart that 23 the average annual VOC content at all five stations 24 evaluated is less than 1 percent and can be as low as 25 0.206 percent VOC.	119 1 Morgan is then obligated to deliver natural gas to certain 2 customers and there are consequences for failure to do so. 3 This makes sense because end users to Kinder Morgan's 4 product in many cases are hospitals, schools and general 5 municipal operations. 6 I'd like to next frame the discussion that we'll 7 have over the next two weeks. The Board's authority for 8 this rulemaking, as we've heard, sources from New Mexico 9 revised Statute 74.2.5 as revised by New Mexico Senate 10 Bill 8 of 2021. By direction of the New Mexico 11 legislature, the Board is directed to address certain 12 areas of the state exceeding the primary NAAQS for ozone 13 by 95 percent, by adopting rules to control emissions of 14 NOx and VOCs. 15 Consistent with this authority and direction, 16 NMED took on the task of proposing this set of rules that 17 is before us. These rules are intended to address ozone 18 precursor pollutants, namely NOx and VOCs. Thus, it is 19 the Board's objective and within the Board's authority to 20 adopt reasonable regulations to mitigate potential NOx and 21 VOC emissions from the oil and gas sector. 22 Consistent with the scope of rule, Kinder Morgan 23 conducted extensive analyses regarding the potential 24 impact of the proposed NOx and VOC emission standards on 25 their operations. And over the course of Kinder Morgan's
118 1 In contrast, the VOC content of the gas processed 2 and moved through upstream and midstream operations is 3 typically much higher, depending on operation and 4 location. Another critical distinction is that day-to-day 5 operations are simply just different. Just one example 6 which you'll hear more about in other presentations from 7 us, is that Kinder Morgan pigs its transmission pipeline 8 much more infrequently than operators in the midstream 9 segment pig their gathering pipelines. This is because 10 the impurities in the gas have been removed at the gas 11 plant and there's less occasion for liquids and debris 12 buildup that would require pigging. 13 Finally, another distinction is that Kinder 14 Morgan's pipelines are interstate pipelines, meaning the 15 company moves natural gas across state lines in interstate 16 commerce. This in turn means they are highly regulated by 17 FERC. So prior to construction and operation of a 18 transmission compressor station in its network of 19 pipeline, Kinder Morgan typically must apply for and 20 obtain a certificate from FERC, which involves an 21 extensive process, including consultation with 22 stakeholders, environmental review under NEPA, project 23 planning and revision and redesign. It is a carefully 24 calibrated process. 25 Also, as a FERC-regulated operation, Kinder	120 1 technical testimony you will hear a sum -- a summary of 2 those findings from Ms. Leslie Nolting, who is the air 3 permitting and compliance manager for Kinder Morgan, from 4 Mr. James Trent, who is a staff engineer from Kinder 5 Morgan and from Mr. Vince Brindley, who is a technical 6 supervisor for Kinder Morgan. 7 Finally, to further frame our discussions this 8 week, we respectfully remind the Board that its authority 9 requires the Board to take into account all facts and 10 circumstances, including technical practicability and 11 economic reasonableness of the proposed rules. While this 12 statutory mandate of course permits the Board to exercise 13 its professional discretion regarding the weight to 14 attribute to any particular fact or circumstance, by 15 enumerating this list the legislature made clear that of 16 the facts and circumstances to be considered, technical 17 practicability and economic reasonableness are priorities 18 of the legislature. 19 Furthermore, in matters of air quality 20 regulation, it's the common and expected practice that the 21 cost per ton of reduction of the regulated pollutant be 22 evaluated. This is true for the Department and other 23 state and federal agencies. For example, as presented in 24 the Kinder Morgan direct testimony, we researched several 25 instances of agencies determining the appropriate and

121 1 reasonable cost-per-ton threshold of a given regulation. 2 This slide shows just a few of those cost ton 3 evaluations. You'll see that in 2019, NMED determined 4 that \$7,000 per ton of NOx reduced was an appropriate 5 threshold for determining the cost effectiveness of 6 certain of the components of the Regional Haze rulemaking. 7 Pennsylvania, in turn, determined \$3,750 per ton of NOx 8 reduced was an appropriate threshold in the context of 9 fracked analyses for major sources. This was also in 10 2019. While we recognize that determining whether a 11 certain cost is economically reasonable is not an exact 12 science, a cost well over \$7,000 per ton warrant 13 significant scrutiny to be defensible. 14 In order to evaluate the full impact of the 15 proposed rules, Kinder Morgan conducted thorough, detailed 16 and individualized cost analyses to evaluate the cost 17 effectiveness of the various proposed VOC and NOx standard 18 as compared against the anticipated emission reductions. 19 In Kinder Morgan's technical testimony this week, we will 20 provide you with a summary of these analyses. 21 In closing, I'd like to highlight for you Kinder 22 Morgan's priority asks of the Board, which you will hear 23 more about in the coming presentation. On definitions, we 24 ask that you adopt the definitions in the September 16th 25 draft proposal that relate to transmission compressor	123 1 Disposal Group. Mr. Neumann, will you be making an 2 opening statement? 3 MR. NEUMANN: Thank you. Yes. 4 OPENING STATEMENT BY MR. NEUMANN 5 MR. NEUMANN: Good morning, Madam Hearing 6 Officer, Madam Chair, Board members. I'm Chris Neumann 7 with the law firm Greenberg Traurig, and I represent the 8 Commercial Disposal Group, which is made up of five 9 entities: NGL Energy Partners, Solaris Water Midstream, 10 OWL SWD Operating, Goodnight Midstream and 3 Bear Energy, 11 LLC. And some of our members are also members of NMOGA, 12 but as you'll hear, we are different in some fairly 13 important ways, in the assets and the operations that we 14 have that are impacted by this rule. 15 And we thought it was really important to explain 16 those differences and why in certain instances some of the 17 language and framework in the new rule might need to be 18 adjusted to make sense for what we're doing. In many 19 cases that -- that has been done and we're very grateful. 20 We appreciate the Department's consideration of 21 the comments and language that the group has proposed. In 22 particular, we're supportive of the changes to Section 111 23 on applicability of Part 50. We believe that this change 24 and others are going to allow us to greatly streamline our 25 witness testimony, which I'm sure many of you will be
122 1 stations. For engines and turbines, we ask that you adopt 2 Tables 1, 2 and 3 of Section 113 as proposed. We ask that 3 you adopt the staggered compliance schedule set forth for 4 turbines as proposed on September 16th. And we ask that 5 you adopt workable alternate compliance options, in 6 particular to address circumstances of technical or cost 7 infeasibility. In particular, we ask that you adopt the 8 Board's Section B10 and B11 of the Section 11 as proposed 9 on September 16th. 10 For compressor seals, as we will discuss, it is 11 not cost effective to control VOC emissions from wet seals 12 at transmission compressor stations and we ask that the 13 Board adopt the rule as proposed on September 16th. For 14 leak detection, as we will present, we will ask for 15 reasonable frequencies for transmission compressor 16 stations and an opportunity to comply with the federal 17 NSPS leak detection programs on all LDAR requirements, 18 other than frequency, to avoid competing programs that 19 cause resource intensive challenges without emission 20 reduction benefits. 21 On the whole, Kinder Morgan supports reasonable 22 regulation and we look forward to discussing this with you 23 over the next several weeks. That concludes my opening 24 statement. Thank you. 25 HEARING OFFICER ORTH: We move then to Commercial	124 1 grateful for. And we hope to yield back much of the 2 witness testimony time that we've reserved. 3 I'd like to start by telling you a little bit 4 about the Commercial Disposal Group. As I mentioned, our 5 issues are slightly different in pretty important ways. 6 Each of our members has operations in New Mexico for the 7 recycling and underground injection of produced water. 8 Most of the group had facilities -- have 9 facilities that operate and produce water management units 10 at which millions of barrels of produced water are 11 recycled each year and returned to oil and gas producers 12 for use in hydraulic fracturing and other reuse 13 operations. 14 These recycle ponds are several acres in size and 15 often have the capacity to contain several hundred 16 thousand barrels of water. Importantly, the water sent to 17 these units will have gone through pretreatment to remove 18 oil and gas, and, thereby, reduce emissions significantly. 19 To date, the group has a total of thirteen recycling 20 facilities in New Mexico and several more in the planning 21 stages. 22 In 2020, group members recycled over 18.8 million 23 barrels of water, and in the first six months of 2021, the 24 group has recycled over 16.7 million barrels of water. 25 You can see there is a significant increase and the trend

125 1 is for more recycling, which is -- which is a good thing. 2 If the produced water or running water at our 3 facilities is not recycled by our group members, 4 producers, our customers, will have to rely on -- more 5 heavily on freshwater resources for their water needs. 6 Produced water that is not recycled by our group 7 is treated and then responsibly disposed at an EPA 8 underground injection control program facilities 9 administered by the Oil Conservation Division. 10 The Oil Conversation Division reports that since 11 the legislature's passage of the Produced Water Act, 408 12 wells have been completed and are using an average of just 13 over 377,000 barrels of water each, and they report 55 14 percent of this water has been recycled produced water, 15 with amounts to 85 million barrels of water that's 16 recycled for this purpose. 17 Although our facilities in some instances -- in 18 some aspects may look like typical exploration and 19 production facilities, the operations and fluids at our 20 facilities are much different; and, consequently, the 21 emissions profiles of these facilities are much different 22 than from those at production facilities. 23 As I mentioned, the disposal well facilities 24 receive produced water from operators' production and 25 drilling operations, but they don't produce oil and gas.	127 1 proposed rule might hinder further investment in or 2 operation of important water recycling efforts in New 3 Mexico. The group identified difficulties it would face 4 and offered testimony on several key areas, including 5 equipment monitoring and transfer of ownership in Section 6 112, hydrocarbon liquid transfers in Section 120, pig 7 launching and receiving in Section 121, storage vessels in 8 Section 123, and, of course, produced water management 9 units in Section 126. 10 We proposed alternative rule language to the 11 Department to achieve the goal of reducing ozone 12 precursors, but giving members more flexibility in how to 13 comply and the Department in many instances considered and 14 adopted parts of our proposals. In others, others were 15 rejected, but in the final analysis the group supports the 16 latest proposed rule as applied to its operations with 17 really only a handful of exceptions, on which we'll focus 18 our testimony. 19 So these remaining concerns would be presented 20 through our testifying witnesses. We generally support 21 the proposed rule, and our witnesses will adopt their 22 written testimony and where there are still live issues 23 that we'd like to address further, we'll offer brief 24 summary. On topics where we believe there's either been 25 no further testimony or through the September 16th
126 1 Our business is recycling water or disposing of water, not 2 producing oil and gas at these facilities. The produced 3 water group members receive, receive low volatility, what 4 we'll call post-flash water that has already gone through 5 separation and processing and treatment at our customer's 6 sites. Then at our facilities, the water is further 7 separated from any remaining oil, and that oil is trucked 8 off site to market. 9 The water is then either sent to a produced water 10 management unit where it's recycled or it's injected into 11 the UIC injection well for disposal. The oil that we're 12 able to separate at our facilities is also different than 13 what you would expect at a typical production facility. 14 It's less volatile and it's considered what we call "dead" 15 oil because it has a limited flashing or emission 16 potential. A lot of those troubling hydrocarbons have 17 already been removed by the time it gets to us. 18 Because the initial language of the proposed rule 19 was crafted to address important issues at exploration and 20 production facilities, we found that it didn't fit our 21 unique operations at commercial produced water disposal 22 facilities. In many instances it would have been 23 technically infeasible or very expensive for us to 24 implement. 25 An additional concern was that parts of the	128 1 revisions, or otherwise the matter seems fairly settled, 2 we intend only to adopt our written testimony and be 3 available for cross-examination. 4 I'm not exactly sure how the surrebuttal and the 5 testimony will proceed, but given our approach, if someone 6 that comes after us has something important to say that we 7 think might affect matters on which we've testified, if 8 it's okay and you might consider, we'd like to raise our 9 hand and perhaps be heard for a few brief moments on those 10 issues. We think they'll be very few and really, rather 11 than give lengthy summaries to which no one might reply, 12 we'd rather yield back our time and just address those 13 issues as they might arise. 14 And then, briefly, to summarize our witnesses, we 15 have five witnesses who, again, will focus on what few 16 issues remain for our concerns. Il Kim is the senior air 17 permitting engineer for NGL. He's testified on Section 18 120, hydrocarbon liquid transfer and Section 123, storage 19 vessels. Ashley Campsie is a licensed professional 20 engineer with Evergreen Environmental Engineering and she 21 has testified on Section 113, engine and turbine issues, 22 Section 126, produced water management unit issues, and 23 Section 112, monitoring issues. 24 Lori Marquez is a senior air quality consultant 25 with Barr Engineering and she's testified on the

129 1 logistical challenges and costs associated with the 2 Section 112 program. Greg Jones is an air compliance 3 specialist with 3 Bear and the focus of his testimony has 4 been on Section 121, pig launching and receiving, where we 5 do still have some issues we'd like to raise. And lastly, 6 Jill Cooper is a senior principal with Geosyntec 7 Consultants and has testified on Section 112, compliance 8 evaluation issues, which we would like to speak to, 9 Section 123 storage vessels and Section 126, produced 10 water management units. 11 So we'd like to thank the Department again for 12 listening to our thoughts and suggestions, many they've 13 adopted, and look forward to speaking to our remaining 14 issues hopefully in a very abbreviated way as we move 15 forward. Thank you. 16 HEARING OFFICER ORTH: Thank you, Mr. Neumann. 17 Ms. Witherspoon, if you are on, I would invite 18 you to briefly summarize what you will be encouraging the 19 Board to do when you make your presentation. 20 OPENING STATEMENT BY MS. WITHERSPOON 21 MS. WITHERSPOON: Yes. Okay. Thank you. Madam 22 Hearing Officer and members of the Board, my name is 23 Leslie Witherspoon and I will be representing Solar 24 Turbines. We appreciate the opportunity to give technical 25 testimony with respect to the combustion turbine section	131 1 HEARING OFFICER ORTH: Thank you very much, 2 Ms. Witherspoon. 3 All right. I think -- oh, I did want to say, 4 Mr. Neumann had mentioned surrebuttal, and I wanted to 5 share with the Board a discussion that I had with counsel 6 and party representatives last Tuesday in a second 7 prehearing conference. I will invite surrebuttal after 8 the parties have had a chance to do their direct and 9 rebuttal. Surrebuttal is not required to fit within that 10 30-minute limitation on technical witnesses. Surrebuttal 11 will be invited in reverse order from the direct and 12 rebuttal and the Department reserves the final spot there 13 as the proponent of the rule, to address any surrebuttal 14 that they haven't already addressed. 15 We can certainly talk more about that if you'd 16 like when we get there. It's going to be a while before 17 we get there. So let's break for lunch. We do have a 18 1:00 public comment period. I don't know if the folks are 19 on as attendees right now, but the first -- the first four 20 folks -- I'll just do four at a time. The first four 21 folks I'll be inviting to offer public comment are Sharon 22 Wilson, Brent Stoneking Clinton Whisonant and John 23 Alexander. So let's reconvene at 1. Thank you very much. 24 (Recess taken from 12:11 p.m. 1:00 p.m.) 25 HEARING OFFICER ORTH: Okay. We are back after a
130 1 of the rule. 2 Solar Turbines is largely in support of the 3 September 16th, '21 version of the rule proposal, but we 4 would like to take the opportunity during our testimony to 5 make a few clarifying points and we look forward to 6 presenting. I will be the technical witness for Solar 7 Turbines. I have 30 years of air quality experience, a 8 lot of air permitting and dispersion modeling experience, 9 but for the last 23 years I've been at Solar supporting 10 the placement of our turbines worldwide, and been involved 11 in countless rulemaking processes specifically in the 12 Pennsylvania General Permit 5 Rule development process. 13 And the reason I mention that is that is the rule that New 14 Mexico modeled the turbine section of this rule after. So 15 I will be certainly available for -- for questions, if 16 there are any from the Board and others on why certain 17 numbers are the way they are because they do represent for 18 the most part our turbines and because they are prevalent 19 in the state of Pennsylvania also. 20 We have a large number of turbines installed in 21 New Mexico and have a large number of the ones affected by 22 this rule, as we've been putting turbines in in New Mexico 23 for over 60 years. So that completes -- that's all I have 24 to say today and I look forward to our testimony over the 25 next -- when we do that in the next two weeks. Thank you.	132 1 lunch break. Let me just briefly remind folks about the 2 platform protocol. If you are a Board member and are 3 comfortable on screen, you are invited to be on screen at 4 all times. If you go off screen, that's fine. It's just 5 a matter of folks wanting to know that folks are 6 listening. If you turn off your screen, maybe to walk 7 around or snack, or what have you, just -- just turn off 8 your screen, that's fine. 9 For all of the panelist, Board members, lawyers 10 and party representatives, if you would please be sure to 11 stay on mute; and for the lawyers and party 12 representatives off screen, please, if -- if you're not 13 speaking. 14 So it's 1:00 and this is one of our 29 public 15 comment sessions. It's the first of them. We have ten 16 public commenters indicating a desire to speak during this 17 session. All of you, please remember that there is a 18 five-minute limit on your comment. Certainly you don't 19 need to go five minutes if what you have to say can be 20 said less than that. Comment is taken under oath and is 21 subject to questioning because all comment testimony, 22 pursuant to the Board's statute and rulemaking rules, is 23 taken under oath and subject to questioning. 24 Let me just say for the lawyers and party 25 representatives who perhaps haven't been on a complex

133 1 hearing with me before, I understand it's your right to 2 cross-examine members of the public, but I discourage it. 3 And without going into a whole long discussion as to why 4 that might be, mostly, I don't think it's productive. It 5 has never been productive. And I've been doing this for 6 22 years, so I'm not going to call on you and ask you if 7 you have questions of any of these members of public. If 8 you actually have a question to the member of the public, 9 you're going to have to put something in the Chat to me to 10 indicate that, in fact, you have questions you need to ask 11 that member of the public. Otherwise, I'm going to move 12 from one public commenter to the next without stopping. 13 Board members, the same for you, please. I'm not 14 going to call on you to ask you if you have questions of a 15 particular member of the public. If you do, please put 16 something in the Chat. 17 Okay. So let me call out the order in which I 18 will be calling on you. This is the order in which the 19 request was sent to Pam Jones, our Board Administrator. 20 And just generally, I will ask you if you swear to tell 21 the truth, swear or affirm, and I will ask you to spell 22 your name so that the transcript is correct. And I will 23 ask you to speak loudly and clearly. And it may take me a 24 moment to unmute each one of you. Public comment will be 25 given by audio, not video.	135 1 You're are a little soft. So if you would please raise 2 your right hand. 3 And do you swear or affirm to tell the truth? 4 MR. WHISONANT: I do. 5 HEARING OFFICER ORTH: And would you please spell 6 your first and last name? 7 MR. WHISONANT: First name is Clinton, 8 C-L-I-N-T-O-N. Last name is Whisonant, and thank you for 9 pronouncing it perfectly. W-H-I-S-O-N-A-N-T. 10 HEARING OFFICER ORTH: Thank you. Your five 11 minutes starts now. 12 CLINTON WHISONANT, 13 having been first duly sworn or affirmed, gave public 14 comment as follows: 15 PUBLIC COMMENT BY MR. WHISONANT 16 MR. WHISONANT: Okay. I'll be brief. I just 17 have read through as best I could and as quick as I could, 18 the bill. And my concern is the additional paperwork 19 requirements that it's going to impose on an already very 20 restricted in this state, industry. Gas and oil is -- I'm 21 from Bernalillo County, Albuquerque. But as a citizen of 22 this county and of the state, gas and oil contributes a 23 great deal to the economy of the state. It also 24 contributes considerably to the energy and the 25 independence of the nation.
134 1 So this is the order in which I'll be calling all 2 of you: Sharon Wilson, Brent Stoneking, Clinton 3 Whisonant, John Alexander, Syd Goodlow, Michael Parrino, 4 Todd Hawthorne, David LeBlanc and Joan Brown and Kayley 5 Shoup. Again, five minutes. And I'm going to start with 6 Sharon Wilson. So, sorry, this is just going to take me a 7 moment each time. 8 I don't see Sharon Wilson on the platform. 9 Ms. Wilson, if you are on the platform and I am missing 10 your name here, it's all alphabetical, please reach out 11 through the Chat. By the way, if someone has signed up to 12 offer public comment and finds themselves unable to be 13 there at the time they have signed up, that's perfectly 14 fine. I will take them the next time they come onto the 15 platform. It's not a problem. 16 All right. So I'm going to pass Sharon Wilson 17 and go to Brent Stoneking. Let's see if Brent Stoneking 18 is with us. I am not seeing Brent Stoneking either. 19 Mr. Stoneking, if you're on the platform, please reach out 20 through the Chat and I will unmute you. 21 Clinton Whisonant. And I'm sorry if I'm 22 mispronouncing your name. Not my intention. 23 Mr. Whisonant, can you hear me? 24 MR. WHISONANT: Yes, I can. 25 HEARING OFFICER ORTH: Great. I can hear you.	136 1 And I think anything that we would -- anything 2 that we would do to hinder or restrict this industry would 3 be bad for the country and for the state and for the 4 county. So that's my concern, is that we should minimize 5 the paperwork requirements. We should let the experts 6 decide how the industry will comply with standards, which 7 I agree should be set, but not descriptions on the 8 requirements in a law or a regulation that tells the 9 industry how to meet a standard. 10 And that's essentially my comments. Thank you 11 very much for the opportunity 12 HEARING OFFICER ORTH: Thank you, Mr. Whisonant. 13 All right. Let's move to John Alexander if he is on the 14 platform us with. Let's see here. Mr. Alexander, can you 15 hear me? 16 MR. ALEXANDER: Yes, ma'am, I can. Can you hear 17 me? 18 HEARING OFFICER ORTH: Yes, I can. Thank you. 19 Do you swear or affirm to tell the truth? 20 MR. ALEXANDER: I certainly do. 21 HEARING OFFICER ORTH: Thank you. Would you 22 please spell your first and last name? 23 MR. ALEXANDER: Yes, ma'am. It's John, J-O-H-N. 24 And then Alexander, conventional spelling: 25 A-L-E-X-A-N-D-E-R.

137 1 HEARING OFFICER ORTH: Thank you very much. If 2 you would please, your five minutes starts now. 3 JOHN ALEXANDER, 4 having been first duly sworn or affirmed, gave public 5 comment as follows: 6 PUBLIC COMMENT BY JOHN ALEXANDER 7 MR. ALEXANDER: Okay. Thank you very much. I 8 appreciate the opportunity to address you-all. This is 9 just an extremely important issue that all -- both 10 parties -- and when I listened to the opening statements 11 this morning, we can all -- we can all agree on that. 12 It's extremely important. 13 It's also an extremely technical issue and the 14 Environmental Improvement Board certainly has a big job in 15 front of it because of the amount of technical things that 16 are going on here. Energy is just extremely important to 17 this state and so -- as is clean air and clean water. I 18 don't think there's anyone in this group that would 19 certainly want to have any sort of activity that would 20 harm our environment. 21 I mean, we just -- we -- we -- we don't do that. 22 We all breathe the same air, we all drink the same water. 23 Energy is just extremely important. That's what drives us 24 and it's what's driven our community, our state to be 25 where we are today, which is one of the -- as was pointed	139 1 Mr. Goodlow, but if he joins us later, I'd be happy to 2 take his comment. 3 Michael Parrino, let me see if we have 4 Mr. Parrino on the platform. Yes. All right. 5 Mr. Parrino, can you hear me? 6 MR. PARRINO: Yes, I can hear you and see you. I 7 don't know if you can see me. I don't see my face on the 8 screen or my iPad. 9 HEARING OFFICER ORTH: So public comment is audio 10 rather than video. If you would raise your right hand, 11 please. Do you swear or affirm to tell the truth? 12 MR. PARRINO: I do. 13 HEARING OFFICER ORTH: Thank you very much. And 14 your -- if you would -- oh, let's see. I need the 15 spelling of your last name. The first name is standard. 16 What's the spelling of your last name? 17 MR. PARRINO: Parrino, P-A-R-R-I-N-O. 18 HEARING OFFICER: Okay. Thank you. Your five 19 minutes starts now. 20 MICHAEL PARRINO, M.D., 21 having been first duly sworn or affirmed, gave public 22 comment as follows: 23 PUBLIC COMMENT BY MICHAEL PARRINO, M.D. 24 MR. PARRINO: Okay. I'm a retired pediatrician. 25 I just retired five months ago. I'm 78 years old, so I
138 1 out earlier this morning in testimony, the second highest 2 producing state in -- of oil and gas in New Mexico. 3 And while we're all aware of that, we're aware of 4 the importance it brings to us, an issue of trying to 5 avoid adversarial positions saying it would be extremely 6 critical for you-all at this time. There's a lot of 7 testimony being presented from both sides that is going to 8 be extremely useful in making this decision. And so I 9 just -- I pray and ask that as the Board considers this, 10 it carefully considers the testimony that's being 11 presented from this very, very technical issue. Listening 12 to all of this technical stuff, it's going to get a little 13 boring, I'm sure at some point, but it's also critical. 14 And you have a big decision on your part. So thank you 15 for your time. I just ask that you seriously listen to 16 both sides and try to emote -- avoid the emotional 17 standpoints that we often get into it. 18 Society is way too -- way too divided anyway. 19 And so I want to encourage you to do that, not much 20 technical help here, but I'll be watching you-all as will 21 the state, and I just, again, thank you for your service. 22 We really appreciate it and I yield back. 23 HEARING OFFICER ORTH: Thank you very much, 24 Mr. Alexander. Now we have Mr. Goodlow. Let's see if 25 Mr. Goodlow is on the platform with us. I don't see	140 1 worked a lot longer than the average person. I live here 2 in Bernalillo. This is my second time living in New 3 Mexico. I've been here since 2017. Truth in lending, as 4 they say, or truth in whatever; I do own stocks and some 5 of them are oil and natural gas, so I do follow the 6 industry with great interest. To me, it's very important 7 because I have a son who's active that's in the 8 educational business. A great deal of the budget for 9 education in the State of New Mexico comes from the 10 revenues that come from the oil and natural gas business. 11 Anything that affects those revenue, those revenues 12 affects our schools. Okay? I moved back here to be near 13 him and my grandchildren. 14 Energy demand is rising constantly. There seems 15 to be no understanding of the fact that we can't escape 16 it, that it's a necessary part of our life. If you want 17 to see what happens when you try to escape it by 18 overregulation or by forbidding exploration and 19 development, then what you get is California. And I'm not 20 sure that everybody wants to be California. Some of us 21 do, some of us don't. Okay? 22 We see in Europe right now a crisis developing in 23 energy because they don't have enough of it. They have 24 tried to rely on wind and solar which, to be honest, solar 25 might work in New Mexico, but not as much as they'd like.

141 1 And as for wind, Britain has a quandary right now because 2 the North Atlantic, which is supposedly a very windy ocean 3 hasn't been very windy of late and they have a shortage of 4 energy. There are shortages of coal and natural gas in 5 Europe. And there's going to be a worldwide shortage 6 beginning this year. 7 If you don't believe me, go to oilprice.com and 8 look at the price of natural gas on the market at the 9 Henry Hub Centers. It's the highest it's been in the last 10 seven years. We -- if we have a cold winter, and we're 11 predicted to have a colder-than-average winter this year, 12 we're going to see very high rises in the price of natural 13 gas. You're going to pay a lot to heat your home if you 14 heat with natural gas. 15 It seems to me folly, when we look at California 16 and see how high the price of petroleum and natural gas 17 are there, for us to do anything that further limits the 18 production of oil and natural gas. We have it, we should 19 be exploiting it. The only country in Europe that is safe 20 is France. The alternative to oil and natural gas is not 21 wind and solar, which are unreliable; it's nuclear power. 22 The only country in Europe that's doing well in the 23 present crisis is France, which gets more than 25 percent 24 of its power from the nuclear energy. We have to go that 25 way, too. If you really want to get away from the	143 1 HEARING OFFICER ORTH: Yes, very clearly. Do you 2 swear or affirm to tell the truth? 3 MR. LEBLANC: I do. 4 HEARING OFFICER ORTH: Thank you, very much. 5 David is the standard spelling. Would you spell LeBlanc, 6 please? 7 MR. LEBLANC: L-E-B as in boy, L-A-N-C. 8 HEARING OFFICER ORTH: Thank you. Your five 9 minutes begins now. 10 DAVID LEBLANC, 11 having been first duly sworn or affirmed, gave public 12 comment as follows: 13 PUBLIC COMMENT BY DAVID LEBLANC 14 MR. LEBLANC: Okay. I am a resident in San 15 Miguel County and I really appreciated the comments of the 16 previous gentleman about the interconnectivity of oil and 17 with so many aspects of our lives, in not just food, but 18 so many products that utilize natural gas in production of 19 those products. 20 But my real emphasis is from my perspective as an 21 engineer and project manager for over 40 years. And I 22 just wanted to say that overregulation that is a little 23 too short-sighted perhaps, tends to -- tends to diminish 24 the capability of the operators in oil and gas to manage 25 the environment themselves. And I'll just say that over
142 1 extraction of oil and natural gas for energy, then you 2 have to go with nuclear power, but there are other aspects 3 that people are not aware of either. 4 The base for fertilizer is natural gas and 5 petroleum. There's a shortage of fertilizer in Europe. 6 In England, the two leading producers of fertilizer are 7 shutting their plants because they say the price of 8 natural gas is too high for them to afford to manufacture 9 it. That will drive up the price of food. It's an 10 incredibly complex world we live in. Everything we do 11 seems to drive the price of everything higher. 12 HEARING OFFICER ORTH: Mr. Parrino -- 13 Mr. Parrino, I'm sorry to interrupt. Would you wrap up, 14 please? 15 MR. PARRINO: Okay. I just think we can't do 16 without it. We must have it and we must continue to 17 develop it. If we don't, then we are going to see the 18 price of everything, food, transportation, energy, heating 19 our houses, it's all going to rise. Thank you. 20 HEARING OFFICER ORTH: Thank you very much. The 21 next person who requested a spot now is Todd Hawthorne. 22 See if Mr. Hawthorne is with us. I don't see him. 23 After that is David LeBlanc. Let's see here. I 24 see Mr. LeBlanc. Mr. LeBlanc, can you hear me? 25 MR. LEBLANC: Yes, ma'am. Can you hear me?	144 1 the last several years, the company I was working for was 2 involved in not only environmental, but water management 3 projects for oil and gas operators, both in Texas and New 4 Mexico. 5 So it's an evolving technology for environmental 6 protection technologies and, you know, the industry is 7 cognizant of the need for air and water quality. Water 8 management is one of the things that has been a huge 9 focus, especially in the Permian Basin, where we have 10 shale gas in areas where there's a shortage of water. And 11 so a lot of creative projects are under way or have been 12 already performed to help the industry manage their water 13 use on their properties, on their oil and gas properties, 14 and reuse of water as well. 15 My company employs a whole division that are 16 water experts. We deal in desalination as well as water 17 management, water use, any kind of water treatment, and 18 we're applying those technologies. And so, I just want to 19 encourage the Board to consider the fact that, you know, 20 the oil and gas industry has not just been sitting idle, 21 that we've actually participated with the oil and gas 22 industry, with my company, to improve water management, to 23 improve emissions. 24 And so, I just don't want to -- I would prefer a 25 flexible regulation, not one size that fits all. And

145 1 this -- this actually helps promote the problem-solving 2 and creativity. And there's going to be a cycle in 3 environmental research and innovation, and we can apply 4 those to continue to improve the environmental performance 5 in our oil and gas properties. And I want to thank the 6 environmental -- sorry, the Environmental Improvement 7 Board, how you serve our state, and for allowing me to 8 make these public comments. Thank you. 9 HEARING OFFICER ORTH: Thank you very much, 10 Mr. LeBlanc. 11 The next presenter is Ms. Brown. And let's see, 12 I'm unmuting you. Sister Brown, I did see your comment in 13 the Chat and you are correct, it is not necessary to 14 register or sign up ahead of time. I will be accepting 15 folks' public comment regardless. However, because we 16 have so many public commenters in this action, and I don't 17 have the usual signal of a sign-in sheet at the front of 18 the auditorium to tell me what order folks might have 19 joined us, I am -- before I throw the platform open to 20 anyone who reaches out through Chat, I am inviting those 21 folks who actually sent me an email ahead of time. So I 22 hope that answers your question. 23 SISTER BROWN: Yes. Thank you so much, Hearing 24 Officer Orth. I so appreciate that clarification because 25 I'm trying to get the information out to the public so	147 1 about ten years ago and have educated our thousands of 2 members and faith leaders and we've offered hundreds of 3 comments through various processes to regulate methane 4 pollution. So this is not a new issue. 5 We've worked with faith leaders in Southeast New 6 Mexico and we've also been into the homes of ordinary 7 people down there who have been very concerned about the 8 smells and the VOCs and what might be around them. And on 9 one occasion, we visited with some women who were mothers 10 in a lower income neighborhood who didn't understand the 11 terrible odors coming into their home. And they also had 12 had a young nephew who died of some strange cancer that 13 was unusual. 14 So we offered to take them into actually a field 15 right near their backyard to witness methane pollution 16 with powerful cameras. And a few months later, we went 17 back and we still saw this pollution coming out. These 18 women were very afraid even to go out into the field with 19 us. And many of the people that are affected don't speak 20 up because they're afraid of repercussions that might come 21 to them because of the powers that be in their 22 communities. 23 Methane pollution is an environmental, economic, 24 and a racial justice concern that needs attention and 25 strong rules, with many of the strong recommendations that
146 1 they know what to do and how to do it. 2 HEARING OFFICER ORTH: Sure. Sure. So if you 3 would raise your right hand, please. Do you swear or 4 affirm to tell the truth? 5 SISTER BROWN: Yes. 6 HEARING OFFICER ORTH: Thank you. And I know 7 that your first and last name are the standard spelling. 8 And let's see here. Your five minutes starts now. 9 SISTER JOAN BROWN, 10 having been first duly sworn or affirmed, gave public 11 comment as follows: 12 PUBLIC COMMENT BY SISTER JOAN BROWN 13 SISTER BROWN: Okay. Thank you so much. Good 14 afternoon and thank you, Hearing Officer Orth and also the 15 EIB for taking these public comments on this methane 16 pollution rule that's not about sides, but really is about 17 the common good. And we need to take into consideration 18 all the common good. My name is Joan Brown, I'm a 19 Franciscan Sister. And I'm the executive director of New 20 Mexico Interfaith Power and Light. 21 And our organization works with faith communities 22 and people of faith and conscience all over our precious 23 state, to reflect upon, pray about, and then act on 24 concerns of community health and environment as it relates 25 to climate justice. We learned about methane concerns	148 1 are being heard these days. In addition, it's a waste of 2 God's resource. We use these -- the money that comes from 3 methane in our state for our school system. And so much 4 of it being wasted and it's not going to that. 5 So it is immoral and unethical to continue with 6 business practices that disregards God's creation and our 7 communities. The only commandment that we are given from 8 all religious traditions is to love our neighbor and 9 creation. And disrespect of the health, the environment 10 and life that we are given to cherish is not acceptable 11 and it's not ethical business practices. 12 We all have to be ethical in what our work is. 13 Later this week I will submit a letter signed by about a 14 hundred faith leaders from around the state who share 15 these similar concerns about health, justice and climate. 16 And they also have been concerned about the 17 intergovernmental chatter on climate change that just said 18 we are in a code red for humanity with climate change. 19 And for us faith leaders, a code red means that we all, 20 together, must take urgent action to care for life in our 21 sacred home. 22 So we have a choice to continue life and creating 23 sacrifice zones in our state, or to live up to our true 24 identity as the Land of Enchantment and a common home that 25 respects the common good. And so we thank you for this

149 1 hearing and taking very seriously the strong methane rules 2 and recommendations that will be made. Thank you so much. 3 HEARING OFFICER ORTH: Thank you very much, 4 Sister. 5 All right. We'll turn then to Kayley Shoup. And 6 after Ms. Shoup, Arcelia Isaías. Let's see here. 7 Ms. Shoup, can you hear me? 8 MS. SHOUP: I can hear you. 9 HEARING OFFICER ORTH: Terrific. I can hear you 10 clearly. If you would raise your right hand, please. Do 11 you swear or affirm to tell the truth? 12 MS. SHOUP: I do. 13 HEARING OFFICER ORTH: Thank you. Would you 14 spell your first and -- first and last name, please. 15 MS. SHOUP: First name is K-A-Y-L-E-Y. And last 16 name is S-H-O-U-P. 17 HEARING OFFICER ORTH: Thank you. Your five 18 minutes starts now. 19 KAYLEY SHOUP, 20 having been first duly sworn or affirmed, gave public 21 comment as follows: 22 PUBLIC COMMENT BY KAYLEY SHOUP 23 MS. SHOUP: Hello everyone. So my name is Kayley 24 Shoup and I'm an organizer with Citizens Caring for the 25 Future in Carlsbad. And today, I will be sharing why, as	151 1 proposed today. Rules that require things like frequent 2 inspection, especially at sites near schools and 3 neighborhoods. Rules that can be realistically enforced, 4 such as I believe these rules can be. They are currently 5 our only line of defense against methane and VOC 6 pollution. 7 I'm not sure how the Governor or NMED plans to 8 slash methane pollution that they aren't properly 9 monitoring, but I do believe these rules are a start. As 10 a community member in the region of the state that 11 contributes the most to the New Mexico State budget, I 12 believe the least the state can do is implement the 13 proposed rules. This week concerned citizens and leaders 14 that called and have called the Permian home will be 15 submitting a letter to EIB voicing their support for 16 NMED's rules. 17 When we prioritize the needs of the communities 18 most affected by methane and VOC pollution first and 19 foremost, when we work to protect the health and lives of 20 those human beings in frontline communities, when we value 21 doing what is right and not just politically simple, we 22 set off a ripple that becomes a wave, and that wave makes 23 real and meaningful change. Thank you for your time. 24 HEARING OFFICER ORTH: Thank you very much, 25 Ms. Shoup.
150 1 a frontline community member in the Permian Basin, I 2 strongly support the proposed methane and ozone rule. For 3 years, I believed, like many in my community still do, the 4 regulatory agencies were doing their best to protect 5 frontline communities like mine. 6 As every day, I was learning of more young people 7 being diagnosed with cancer, I continued to believe that 8 we were being protected, that our air was clean, that the 9 pollution couldn't be that bad, and that maybe I was just 10 a human that was trying to find a reason as to why I was 11 surrounded by so much tragedy. 12 Over the past year, I have learned that all of 13 those beliefs were false. Those of us in frontline 14 communities actually aren't being protected. I now know 15 that the state does not have one air monitor that tracks 16 methane or VOC pollution in the Permian Basin. I now know 17 after being out in the field and looking through a flare 18 video camera that the pollution is that bad and it is 19 constant. And I also understand that two years ago, I 20 wasn't just a girl trying to find meaning and seeing her 21 loved ones ravished by cancer, but a girl that was 22 starting to realize the danger that surrounds her and her 23 community. 24 Because of the abysmal lack of enforcement in the 25 Permian, we must have stronger rules such as these being	152 1 As I go to unmute Arcelia Isaías Gastelum -- and 2 please correct me if I have mispronounced your name -- to 3 unmute her, let me ask if there's anyone else on the 4 platform who would very much like to speak now and not at 5 one of the other 28 opportunities we'll have for public 6 comment. Please reach out through the Chat. 7 So, Ms. Isaías Gastelum, can you hear me? 8 MS. ISAIAS-GASTELUM: Yes, I can hear you. Can 9 you hear me? 10 HEARING OFFICER ORTH: Yes, I can. Would you 11 raise your right hand, please? And do you swear or affirm 12 to tell the truth? 13 MS. ISAIAS-GASTELUM: I swear. 14 HEARING OFFICER ORTH: Thank you. And if you 15 would, please, both pronounce and spell all of your names. 16 MS. ISAIAS-GASTELUM: Yes, I hope you're all 17 hydrated, Madam Hearing Officer. So it's spelled Arcelia 18 Isaías-Gastelum and it's spelled A-R-C-E-L-I-A. Last 19 name, I-S-A-I-A-S-G-A-S-T-E-L-U-M. 20 HEARING OFFICER ORTH: Thank you very much. Your 21 five minutes starts now. 22 ARCELIA ISAIAS-GASTELUM, 23 having been first duly sworn or affirmed, gave public 24 comment as follows: 25 PUBLIC COMMENT BY ARCELIA ISAIAS-GASTELUM

153 1 MS. ISAIAS-GASTELUM: Okay. Thank you. And thank 2 you, Board members as well, and good afternoon. My name's 3 Arcelia and I'm a board member with New Mexico Interfaith 4 Power and Light. And I'm here to ask that you vote to 5 support and strengthen the New Mexico Environment 6 Department's draft rules to addresses ozone precursor 7 pollutants from oil and gas operations. 8 As a young adult who has dedicated my education 9 and entire professional career to working to address 10 climate change, I believe stopping pollution is a crucial 11 first step and is also necessary for protecting our 12 communities. From a moral, physical and spiritual 13 standpoint, we can no longer afford to keep sacrificing 14 the health of our people for short-term economic gain. 15 We saw how detrimental this was during the 16 COVID-19 pandemic, and right now we have an opportunity 17 and responsibility to learn from these hardships and do 18 better. Our state has some of the worst methane pollution 19 in the country. In addition to causing a quarter of the 20 global warming we are experiencing, methane operations 21 also release compounds into our air that cause respiratory 22 diseases and increase risks of cancer. 23 These effects have disproportionate impacts on 24 our children and it is for them that I wanted to draw 25 attention to today. This country has repeatedly empowered	155 1 Administrator and I will call on your name. And I will 2 also, as I am right now, throw it open to anyone on the 3 platform who would like to reach out through the Chat. 4 Going once. Okay. We've come to the end of public 5 comment. We'll return to the technical session at this 6 point. 7 Ms. Katz, the parties you've prepared, what we've 8 been referring to as the spreadsheet in order of topics. 9 Would you perhaps walk -- walk the Board members, just 10 describe what's happening here in the -- in the 11 spreadsheet. 12 MS. KATZ: Sure, I'm happy to do that, Madam 13 Hearing Officer. So the spreadsheet puts together -- it 14 lists all of the topics that we expect to cover in the -- 15 in the rulemaking. So there's a topic rule section, 16 subsection or paragraph column in Column B. I don't -- I 17 don't know if everybody has the spreadsheet to look at. 18 And then there's a description of either -- if it's a rule 19 section, there's a description of that section or else 20 there's nothing there if it's not an actual rule section. 21 Then we have all of the parties that were -- that 22 entered appearances and submitted technical testimony. 23 There's several rows -- all the first set of rows identify 24 the witnesses who presented direct technical testimony 25 on -- prefiled testimony on that particular subject. And
154 1 industries who routinely put our children at risk. It's 2 become so normalized and expected, there's now an entire 3 generation of kids who are growing up and realizing 4 they're beholden to a system that agreed to put their 5 future at stake so previous generations could turn a 6 profit. And its for these kids that we need to right 7 these wrongs. They are acutely aware of everything that 8 is going on at a level that has never been as accessible 9 as it is today. 10 They are watching, and I ask that you show them 11 that we won't keep sacrificing their well being for 12 temporary gains. I share the concerns those kids have for 13 our futures. And for this reason, I ask that you 14 strengthen the meth -- the methane rules to ensure 15 frontline communities are protected by routinely 16 inspecting for and fixing leaks, where 70 percent of the 17 emissions are coming from, and by cutting pollution caused 18 by pneumatic controllers. Thank you for your time. 19 HEARING OFFICER ORTH: Thank you very much. 20 I don't have anyone else in the Chat indicating a 21 desire to offer public comment at this time. That being 22 the case, we will have another public comment session at 23 5:00 today and at 9 in the morning, 1 in the afternoon, 24 and 5:00 tomorrow. The best way to have your name called 25 is to send an email to Pamela Jones, the Board	156 1 then if you scroll across the columns to Column Q, it 2 identifies whether parties submitted rebuttal technical 3 testimony, and then there's a list of all the rebuttal 4 witnesses associated with each topic, and then there is -- 5 at the end there is a column that indicates witness 6 availability issues regarding that topic. So it's to try 7 to help us manage the multiple topics and many witnesses 8 that we have in the hearing. 9 Does that -- is there some other specific thing 10 you'd like me to address? 11 HEARING OFFICER ORTH: No. I just wanted to draw 12 their attention to it and see if they had questions about 13 it. Board members, as you imagine, there may well be 14 adjustments made to it as we -- as we move along and 15 witnesses have scheduling conflicts, but it represents a 16 lot of work on Ms. Katz' part and a lot of discussion 17 among all of the -- all of the parties with us. 18 Do any of the Board members have questions about 19 it? Board Member Davis? 20 VICE-CHAIR TRUJILLO DAVIS: Thank you. First, I 21 would like to say, Ms. Katz, this is awesome, you did a 22 wonderful job on it. It helps keep us in order, so thank 23 you very much. 24 Actually, my only question on it was about the 25 topic order since that column is blank, can we just assume

157 1 that we're moving top to bottom here, or is that something 2 that's going to populate? 3 MS. KATZ: Yes, Member Trujillo-Davis. I'm 4 wondering if -- I'm not quite sure maybe if you are all 5 the way over on the -- if you scrolled all of the way to 6 the left, there is a -- there are numbers associated with 7 each row of the topics. And so I don't -- you might not 8 have the latest version so I am happy to send it to 9 Ms. Orth and Ms. Jones. Maybe that needs to be sent out 10 again. But, yes, you are correct, though, generally that 11 that is the order. And it's going in that order, 12 although, it kind of got tweaked a little bit this 13 weekend. 14 So, I don't know, Madam Hearing Officer, have 15 they been provided with the more recent one? 16 VICE-CHAIR TRUJILLO-DAVIS: I must have the wrong 17 one up. 18 HEARING OFFICER ORTH: Yeah, Member Bitzer was 19 just asking in the Chat who had sent it and whether we 20 have the most recent version to the Board members. I 21 believe Pam did send the most recent version to the Board 22 members, but I'll ask Pam to resend it because I know that 23 everyone involved has been just slammed with emails. 24 Especially, because I was forced to send each of you ten 25 invitations and I really am sorry about that. There was	159 1 those witnesses, see where we are because I actually do 2 not have my modeling expert here and so I think we're 3 going to -- and we had asked to have the modeling 4 testimony start tomorrow morning. And so, then there are 5 certain topics that could move up if we have time after 6 these witnesses. 7 HEARING OFFICER ORTH: All right. Yeah, as far 8 as I'm concerned, I think I said this to the lawyers, that 9 my highest priority is packing as much as we can into the 10 hours we have. All right. 11 So, now, let's see. I do now have a Chat message 12 from Ms. Devore, that the National Park Services is 13 prepared to give their presentation regarding ozone 14 formation this afternoon with rebuttal, if it fits. 15 MS. KATZ: Oh, my mistake. I'm sorry. 16 Ms. Devore is right. I neglected -- they do have a 17 rebuttal witness on ozone formation. 18 HEARING OFFICER ORTH: Yes. Mr. Vimont, I 19 believe. All right. So if you would, please, Ms. Katz, 20 if there's nothing else we need to discuss, call your 21 first witness. 22 MS. KATZ: Thank you, Madam Hearing Officer. Did 23 you -- did you want to do exhibit admissions -- 24 HEARING OFFICER ORTH: Oh. 25 MS. KATZ: -- at this time?
158 1 no way around it. 2 So, Pam, if you would please resend the most 3 recent version. 4 MS. KATZ: And it will say -- you know, it has 5 the whole name and at the end it should say V2 because 6 some of the topics moved. So that would be the one, Pam, 7 for you to send. 8 ADMINISTRATOR JONES: Okay. Thank you. 9 HEARING OFFICER: Thank you for that. Other 10 Board member questions of Ms. Katz about the spreadsheet? 11 No? Okay. 12 So, then, Ms. Katz, would you please just briefly 13 speak to us then about the next couple of topics if you 14 would, please, and the witnesses who will be addressing 15 them. 16 MS. KATZ: Sure. Thanks. So the first topic is 17 ozone formation, and that's going to be Dr. Angela Raso. 18 The second will be ozone monitoring and that will be 19 covered by two witnesses: Andrew Ahr and Brent Ellington. 20 Then the third topic is stakeholder outreach, which is 21 Ms. Kuehn. Now, these are -- I expect we should get 22 through these fairly easily, and that this should -- 23 today, for sure, and they don't have -- I don't believe 24 that there was any rebuttal testimony submitted to those. 25 And so, I would put on -- I would ask to put on all of	160 1 HEARING OFFICER ORTH: You know what? I did kind 2 of blow past that, didn't I? All right. So I was looking 3 forward to testimony. 4 MS. KATZ: That's right. 5 HEARING OFFICER ORTH: So the thing about the 6 exhibits is that most of the parties have no objection to 7 most of the exhibits. We do have a couple of parties who 8 have objections to several of the exhibits. 9 So I -- I can certainly bring Mr. Rose back on. 10 He seemed to perhaps have some strategy in mind for the 11 discussion. We can do that, or I can ask you to offer the 12 exhibits to which no one objected, we'll just admit those 13 en masse. And we can wait until you actually offer the 14 ones that were subject to an objection before we have that 15 discussion. What -- what's your preference? 16 MS. KATZ: Thank you, Madam Hearing Officer. I 17 actually don't have those specific exhibits that he's 18 objected to of mine identified in the oral testimony. So 19 it would be coming in through admission of my witnesses' 20 prefiled testimony. I do not think that any of the 21 exhibits that were associated with the next three 22 witnesses -- yes, three witnesses on the first two topics 23 are covered. But I do think he is objecting to some of 24 the exhibits associated that are coming in through 25 Ms. Kuehn's stakeholder outreach testimony.

161 1 So I don't really know. I mean, I can just say I 2 would move to admit all of the exhibits that do not have 3 objections at this time 4 HEARING OFFICER ORTH: Okay. So the NMED 5 exhibits -- NMOGA, I did not see had any objections to the 6 NMED exhibits. 7 MS. KATZ: That's right 8 HEARING OFFICER ORTH: IPANM objected to Exhibits 9 5, 8, 9, 10, 32, 65, 72, 92, 110, and then the rebuttal 10 Exhibit 1. And you're right, that is about the 11 stakeholder outreach. 12 MS. KATZ: Yeah, I think they -- they -- they 13 objected to every exhibit that had the word methane in it, 14 so I think that's right. 15 HEARING OFFICER ORTH: Okay. All right. So 16 please give me the numbers, if you will, of the ones -- 17 other than the ones that they're objecting so we can put 18 that clearly on the transcript that they're being 19 admitted. 20 MS. KATZ: So those would be NMED Exhibit 1 21 through 110, excluding the ones identified by Ms. Orth. 22 And NMED Rebuttal Exhibits 1 through 23. 23 HEARING OFFICER ORTH: Okay. So I'm going to do 24 it this way so that the transcript is clear. I know it's 25 a little more tedious. So 1 through 4 -- NMED Exhibits 1	163 1 So 2 through 23? 2 MS. KATZ: That's my whole -- that's my -- the 3 entire testimony of -- yeah, rule testimony of Ms. Kuehn 4 and Mr. Palmer, so I guess we can take that up. And 5 that's on the rule, so that's not -- that's a different 6 one than Ms. Kuehn's testimony. That's coming up today. 7 HEARING OFFICER ORTH: Okay, but what I'm trying 8 to do is admit the ones to which there was no objection. 9 MS. KATZ: I hear that. Thank you. 10 HEARING OFFICER ORTH: So Rebuttal Exhibits 2 11 through 23, right? 12 MR. ROSE: Madam Hearing Officer, let me -- let 13 me further confuse this, so -- just to make sure. We did 14 have some conversations with the Department after we noted 15 our objections and Ms. Katz was correct, we identified 16 exhibits that related to methane. As we understand the 17 Department's testimony, we have no objections to those 18 exhibits. 19 The others we still have with the other parties, 20 but as to the Department's exhibits that we identified, 21 we're withdrawing our objection. 22 HEARING OFFICER ORTH: I'm really sorry I didn't 23 invite you up a little earlier there, Mr. Rose. 24 MR. ROSE: I wasn't sure whether to try to 25 interject or not. As we're going down this road
162 1 through 4, 6 and 7, 11 through 31, 33 to 64, 66 to 71, 73 2 to 91, 93 to 109. And 111 to -- did you say 123? 3 MS. KATZ: Sorry, no, Madam Hearing Officer, we 4 actually marked our rebuttal exhibits starting again 5 through 1. 6 HEARING OFFICER ORTH: No. I'm sorry. After 7 110, is it 120? 8 MS. KATZ: No, it's NMED Rebuttal Exhibit 1 -- 9 HEARING OFFICER ORTH: No. I'm sorry. After 10 110, I thought there were still more after 110. 11 MS. KATZ: There were, but they are our rebuttal 12 exhibits so they start at 1 again. 13 HEARING OFFICER ORTH: So there's nothing after 14 110? 15 MS. KATZ: Right. 16 HEARING OFFICER ORTH: In the draft? 17 MS. KATZ: Correct. 18 HEARING OFFICER ORTH: So I'm sorry. So, I'm 19 sorry, Theresa. I just botched that. So 93 to 110 is 20 what I should have said. All right. 21 All right. Now it's the rebuttal exhibits. 22 Rebuttal Exhibits 2 through 23, right? 23 MS. KATZ: 1 through 23, I believe, or did he 24 object to Exhibit 1? 25 HEARING OFFICER ORTH: 1 has been objected to.	164 1 particularly far, I figured we ought to talk about that. 2 HEARING OFFICER ORTH: Right. No, any time you 3 can rescue me from going through something like that when 4 you've withdrawn the objection, that -- that would be 5 good. So all of NMED's Exhibits are admitted because as I 6 understand it, no other party objects to them. Mr. Rose's 7 objections were the only objections made and they've been 8 withdrawn. So NMED Exhibits -- the direct Exhibits 1 9 through 110 are admitted, and Rebuttal Exhibits 1 through 10 23 are admitted. 11 (NMED Exhibits 1-110 and NMED Rebuttal Exhibits 12 1-23 received into evidence at this time.) 13 HEARING OFFICER: Okay. I think we've cleared 14 that up on the record now. Oh, I see Mr. Baake. 15 MR. BAAKE: Madam Hearing Officer, this is David 16 Baake, with Clean Air Advocates. And I hate to interrupt, 17 but I think it would be really helpful for the other 18 parties to which this mainly broad objection has been 19 lodged, to have this heard earlier rather than later. 20 As you can -- as you can probably imagine, with 21 47 exhibits being objected to and large sections of 22 testimony, it makes it a little difficult for us to plan 23 our presentation if we don't know how that objection might 24 be ruled on. 25 HEARING OFFICER ORTH: I'm sorry. So do you mean

165 1 the IPANM objections? 2 MR. BAAKE: Yes, that's correct. And maybe -- I 3 mean, maybe we could address it first thing tomorrow or 4 something, but I think it would just be helpful, like I 5 said, to have it kind of scheduled maybe before we get to 6 the technical people that might be objecting to, because I 7 know it applies to three or four parties. 8 HEARING OFFICER ORTH: All right. Thank you. 9 Let me think about that. 10 MS. KATZ: Madam Hearing Officer, I mean, I think 11 there may be a little bit of difference as they apply. I 12 know for the Department, you know, we haven't really -- 13 we've said very little about methane, and the exhibits 14 that mention methane are really just associated -- they're 15 not being used to propose specific requirements or 16 targeted at methane. So that's -- I mean, that was the 17 basis of my response to Mr. Rose and so... 18 HEARING OFFICER ORTH: As you can imagine, my 19 timing on the exhibits, once I understood that IPANM 20 objected to a couple of dozen exhibits, it didn't make -- 21 it made sense to me that I would have this discussion with 22 Ms. Katz, such that in the event the objection had not 23 been withdrawn, she could have laid a foundation and made 24 her proffer while she had her witness on the screen. But 25 that's all I was thinking about in terms of timing,	167 1 BY MS. KATZ: 2 Q. Dr. Raso, where are you employed? 3 A. I work at the Air Quality Bureau of the New 4 Mexico Environment Department. 5 Q. And how long have you worked for NMED? 6 A. Approximately, three years. 7 Q. And what is your current job title? 8 A. I'm an air dispersion modeler in the Bureau's 9 planning section. 10 Q. And what are your job duties? 11 A. I review dispersion modelings with permit 12 applications to verify that air quality standards will not 13 be violated by associated complex facilities. I also help 14 review and understand photochemical modeling results for 15 regional level projects. 16 Q. And can you please describe your educational and 17 professional qualifications? 18 A. I hold a Bachelor's degree in Chemistry from 19 Whitman College. I also hold a Ph.D. in Chemistry from 20 Purdue University. During my Ph.D. research, I studied 21 ozone chemistry and its interactions. 22 Q. Thank you. And a copy of your resume has been 23 provided as NMED Exhibit 14, correct? 24 A. Yes. 25 Q. And have you submitted written direct testimony
166 1 Mr. Baake. 2 All right. Let's get back. Having admitted all 3 of NMED's Exhibits, let's get back to your witnesses. I'm 4 excited. And I believe you were calling Angela Raso. 5 DR. RASO: Raso. 6 HEARING OFFICER ORTH: Raso. Thank you, 7 Dr. Raso. If you would, please, spell your last name. 8 DR. RASO: My last name is spelled R-A-S-O. 9 HEARING OFFICER ORTH: Thank you. And if you 10 would raise your right hand. Do you swear or affirm to 11 tell the truth? 12 DR. RASO: I do. 13 HEARING OFFICER ORTH: Thank you very much. 14 Ms. Katz, your 30 minutes with Ms. Raso -- Dr. Raso 15 starts now. 16 MS. KATZ: Thank you, Madam Hearing Officer. 17 And I will say that I apologize for my reference 18 to Dr. Raso in the opening statement as "Ms. Raso." She 19 is Dr. Raso and I will want to correct that for the 20 record. 21 ANGELA RASO, Ph.D., 22 (Relating to Topic Order 1) 23 having been first duly sworn or affirmed, was 24 examined and testified as follows: 25 DIRECT EXAMINATION OF ANGELA RASO, Ph.D.,	168 1 in this proceeding? 2 A. I have. 3 Q. And your full, written, direct testimony appears 4 as Exhibit 13, correct? 5 A. Yes. 6 Q. And do you have any changes to your written 7 testimony? 8 A. No. 9 Q. And do you adopt that testimony here today? 10 A. I do. 11 Q. All right. Ms. Raso -- Dr. Raso, can you please 12 describe how ozone is formed in the atmosphere? 13 A. Ozone is not directly emitted into the 14 atmosphere; rather, ozone is what's known as a secondary 15 pollutant. It seems it's produced by photochemical 16 reactions of precursor gases in the atmosphere. The 17 indicated ozone precursor gases are oxide nitrogen, which 18 we'll be referring to as NOx, and volatile organic 19 compounds known as VOCs. 20 Q. And where do these precursor emissions generally 21 come from? 22 A. NOx is predominantly produced by human 23 activities, most often combustion, burning of fossil 24 fuels. Most VOCs come from biological life plants, but in 25 some areas, human activities can produce similar amounts

169 1 of VOCs as plant life. Anthropogenic sources of VOCs 2 include fossil fuel production and distribution and 3 biomass burning. 4 In New Mexico, about 20 percent of total VOC 5 emissions are from the oil and gas industry. The industry 6 is the largest source of anthropogenic VOCs in New Mexico. 7 Q. And is it easy to predict ozone concentrations? 8 A. No, it's actually quite difficult. The chemical 9 reactions that form ozone are very complex. It isn't as 10 simple as assuming that 1 molecule of VOC plus 1 molecule 11 of NOx will produce 1 ozone molecule. The oxidation of 1 12 molecule of VOCs typically produces 2 or more ozone 13 molecules, and the reactions that create ozone doesn't 14 actually destroy NOx in the atmosphere. 15 Additionally, there are many other competing 16 reactions that are occurring in the atmosphere at the same 17 time. This is why photochemical modeling is so necessary 18 to understand the complexities and predict ozone 19 concentrations in a region. Photochemical models contain 20 hundreds of chemical reactions, in addition to physical 21 reactions and transportation of gases. 22 Q. Can regulations reduce ozone concentrations, 23 Dr. Raso? 24 A. Yes. The data has been very clear over the last 25 several decades that regulations can reduce ozone	171 1 you. 2 HEARING OFFICER ORTH: Thank you. And I just saw 3 something in Chat from Professor Pacyniak, that CCP and 4 NAVA do not have questions. 5 WildEarth Guardians, Mr. Nykiel? 6 MR. NYKIEL: No questions, Madam Hearing Officer. 7 HEARING OFFICER ORTH: All right. Thank you. 8 Oh, and Ms. Paranhos has just texted that she had 9 no questions. 10 Mr. de Saillan? 11 MR. DE SAILLAN: No questions. Thank you, Madam 12 Hearing Officer. 13 HEARING OFFICER ORTH: Thank you. Mr. Rose? 14 MR. ROSE: No questions. 15 HEARING OFFICER ORTH: Thank you. 16 Mr. Janoe? 17 MR. JANOE: No questions, Madam Hearing Officer. 18 HEARING OFFICER ORTH: Thank you. 19 Mr. Butzier? 20 MR. BUTZIER: No questions, Madam Hearing 21 Officer. 22 HEARING OFFICER ORTH: Thank you. 23 Ms. Gutierrez? 24 MS. GUTIERREZ: No questions, Madam Hearing 25 Officer.
170 1 concentrations. 2 Q. And did you review the work products produced by 3 Ramboll during their photochemical modeling through this 4 rule? 5 A. Yes. Ramboll conducted the photochemical 6 modeling. As they were producing work products, I 7 reviewed both draft and final work products, a list of the 8 work products that we reviewed is included in my written 9 testimony. 10 Q. Thank you, Dr. Raso. 11 MS. KATZ: I have no further questions for this 12 witness. 13 HEARING OFFICER ORTH: Thank you very much. I 14 will ask in the order of the service list again for 15 questions by counsel. After I've done that, I will invite 16 questions from Board members and anyone else. If you are 17 not a panelist and you know that you have a question for 18 this witness, please let me know in the Chat. 19 So, Ms. Fox, do you have a question of Dr. Raso? 20 MS. FOX: No, Madam Hearing Officer. Thank you. 21 MADAM HEARING OFFICER: Thank you. Ms. Paranhos? 22 She may have stepped away. 23 Mr. Jaynes? He may have stepped away. 24 Ms. Devore or Mr. Vimont? 25 MS. DEVORE: We don't have any questions. Thank	172 1 HEARING OFFICER ORTH: Thank you. 2 Mr. Neumann? 3 MR. NEUMANN: No questions, Madam Hearing 4 Officer. Thanks. 5 HEARING OFFICER ORTH: Thank you. 6 Let's see. Mister -- let's see. Oh, 7 Ms. Witherspoon? She may have stepped away. 8 All right. I'll return to the -- 9 Madam Hearing Officer, NMOGA has no questions 10 either. 11 HEARING OFFICER ORTH: Oh, thank you. Did I -- 12 I'm sorry. Oh, yes, that's right. I'm very sorry. Was 13 that Mr. Hiser? 14 MR. HISER: Yes, ma'am. 15 HEARING OFFICER ORTH: Okay. Thank you very 16 much. All right. Let me turn to the Board members. 17 EXAMINATION BY THE BOARD OF ANGELA RASO, Ph.D. 18 HEARING OFFICER ORTH: Madam Chair, do you have 19 questions of this witness? 20 CHAIRPERSON SUINA: I don't have any questions. 21 HEARING OFFICER ORTH: All right. Thank you. 22 Vice-Chair Davis, any questions? 23 VICE-CHAIR TRUJILLO-DAVIS: No, ma'am. 24 HEARING OFFICER ORTH: All right. Member Cates? 25 He may have stepped away.

173 1 Member Bitzer? 2 BOARD MEMBER BITZER: No questions. 3 HEARING OFFICER ORTH: Thank you. Member Duval? 4 BOARD MEMBER DUVAL: Yes, I have just a brief 5 question. Thank you, Dr. Raso. I was -- I was curious if 6 in part of your capacity in evaluating models, do you also 7 do -- do you do process modeling yourself in your 8 position? 9 DR. RASO: The Bureau does not process 10 photochemical models ourselves. We do process dispersion 11 models, which don't account for chemistry and can't 12 predict ozone concentrations. 13 BOARD MEMBER DUVAL: Okay. That was just a point 14 of clarification. I was just curious. Thank you for your 15 testimony. 16 DR. RASO: Uh-huh. 17 HEARING OFFICER ORTH: Thank you. 18 Member Garcia, do you have questions? 19 BOARD MEMBER GARCIA: No questions. Thank you. 20 HEARING OFFICER ORTH: Thank you. And Member 21 Honker? I'm sorry. Mr. Honker, did you say "no 22 questions"? Oh, there you are. 23 MEMBER HONKER: No questions. 24 HEARING OFFICER ORTH: All right. Thank you. 25 I think -- and I see no questions from any	175 1 MR. VIMONT: It's at your pleasure; however you 2 would like to do it. 3 HEARING OFFICER ORTH: Okay. So if you would 4 like to move on, Ms. Katz. 5 MS. KATZ: Thank you, Madam Hearing Officer. The 6 Department calls Brent Ellington. 7 HEARING OFFICER ORTH: Do we have him on the 8 screen? Oh, there we are. Mr. Ellington, I can see you. 9 Would you raise your right hand, please? Do you swear or 10 affirm to tell the truth? 11 MR. ELLINGTON: I do. 12 HEARING OFFICER ORTH: Thank you. Let's spell 13 your last name, please. 14 MR. ELLINGTON: It's Ellington, 15 E-L-L-I-N-G-T-O-N. 16 HEARING OFFICER ORTH: Thank you very much. 17 Ms. Katz, your 30 minutes starts now. 18 BRENT ELLINGTON, 19 having been first duly sworn or affirmed, was 20 examined and testified as follows: 21 DIRECT EXAMINATION OF BRENT ELLINGTON 22 BY MS. KATZ: 23 Q. Thank you, Madam Hearing Officer. 24 Mr. Ellington, can you tell the Board where you 25 are employed?
174 1 nonpanelists in the Chat. So is there any reason not to 2 excuse Dr. Raso? Going once. All right. Thank you very 3 much, Dr. Raso, for your testimony. 4 Ms. Katz, do we then hear from Mr. Vimont? Is 5 that what we do? 6 MS. KATZ: Yes, I believe that's correct. 7 HEARING OFFICER ORTH: Okay. I'm working my way 8 across the spreadsheet there, and that was how I thought 9 we were going to walk through it. Mr. Vimont? 10 MS. KATZ: Madam Hearing Officer, I'm sorry, 11 really quick. I don't think that the spreadsheet is set 12 up in the order that we're doing the -- in the -- anyway, 13 sorry. Yes, I mean, he is the only other witness for this 14 one so it doesn't really matter. 15 HEARING OFFICER ORTH: All right. Thank you. 16 Mr. Vimont, have you joined -- oh, this is 17 Ms. Devore. I see you, Ms. Devore. 18 MS. DEVORE: May I introduce Mr. Vimont quickly? 19 MR. VIMONT: Wait a -- please wait a second here. 20 It might make more sense to go after the monitoring 21 discussion since the -- we kind of covered both in our 22 rebuttal, and, frankly, you know, they're interrelated, 23 so... 24 MS. DEVORE: How do you want to do that? 25 HEARING OFFICER ORTH: All right.	176 1 A. The Air Quality Bureau of the New Mexico 2 Environment Department. 3 Q. And how long have you worked for the Department? 4 A. Approximately, seven years. 5 Q. And what is your current job title? 6 A. I'm an environmental scientist specialist 7 supervisor for the Air Quality Bureau. 8 Q. Can you describe your job duties? 9 A. I supervise the Bureau's Northern New Mexico 10 operation staff with respect to air quality monitoring and 11 data under federal regulatory requirements. 12 Q. And can you please describe your educational and 13 professional qualifications? 14 A. I hold a Bachelor's Degree of Science in Biology 15 from Eastern New Mexico University. I've worked as 16 environmental scientist for over 17 years with the State 17 of New Mexico, seven of which have been with the Air 18 Quality Bureau. My positions have included the 19 environmental specialist operator in Southeast New Mexico, 20 Southern New Mexico supervisor of operations, and 21 recently, the Northern New Mexico supervisor for the 22 ambient air quality monitoring section. 23 Q. And a copy of your resume has been provided as 24 NMED Exhibit 28? 25 A. Yes.

177 1 Q. Have you submitted written direct testimony in 2 this proceeding? 3 A. Yes. 4 Q. And your full, written, direct testimony appears 5 as NMED Exhibit 27? 6 A. Yes. 7 Q. Do you have any changes to your written 8 testimony? 9 A. No. 10 Q. Do you adopt your written testimony here today? 11 A. Yes. 12 Q. Thank you. Mr. Ellington, can you please 13 summarize for the Board your direct testimony regarding 14 the Department's air quality monitoring network? 15 A. Yes. The Department's responsible for collecting 16 ambient air data to document present air quality and 17 significant trends of pollution concentrations. This data 18 must be of high quality because its use may have 19 significant health, social and economic impacts. The NMED 20 ambient air quality consists of state and local monitoring 21 stations and special purpose monitors. The purpose of the 22 network is to support the National Ambient Air Quality 23 Standards and the Bureau is designated by the EPA to 24 operate the monitors. 25 This existing NMED air monitoring network	179 1 A. Yeah. The Department collects ozone data at each 2 of the 14 monitoring sites in the state and uploads that 3 data to the EPA's AirNow program every hour. The air 4 pollution data are also available on the Bureau's website. 5 Information on this site includes pollutant 6 concentrations, values, and are color-coded in the ambient 7 air quality index, so the public can better understand 8 that. And that represents the current ambient air quality 9 for each monitoring location. 10 Q. And what equipment does the Department use to 11 monitor ozone pollution and how are ambient ozone levels 12 monitored? 13 A. Yeah, the Bureau currently uses the Thermo Fisher 14 Model 49i Ultraviolet Photometric Ozone Analyzer. We just 15 call it the 49i, to monitor ozone. This equipment's 16 approved by the EPA for measuring ambient concentrations 17 of ozone pursuant to federal regulations. The thermo 18 analyzer calculates the ambient air concentration of ozone 19 at a monitoring station by counting the molecules of ozone 20 that are present as they pass by an ultraviolet lamp 21 inside the analyzer over a defined period of time. And 22 that calculated ozone concentration is then reported to 23 the station data logger computer and is available 24 thereafter on the Bureau's website for public review. 25 Q. Can you please describe how the Department
178 1 includes monitors in the areas of highest population 2 density and includes sites that measure general background 3 concentrations. There are currently 14 ozone analyzers 4 deployed at various monitoring stations throughout New 5 Mexico. 6 Q. Thank you. Can you discuss the federal 7 regulations governing the Department's air monitoring 8 network? 9 A. Yeah. The EPA specifies the general monitoring 10 site types in its regulations. The location of the 11 monitors in New Mexico meet the requirements in those 12 federal regulations. The Bureau maintains the air 13 monitoring instruments to 95 percent probability goals for 14 accuracy and precision within EPA's required limits. 15 Q. And what are the air pollutants that are required 16 to be monitored? 17 A. Currently, the Department monitors sulfur 18 dioxide, nitrogen dioxide, ozone particulate matter, PM10 19 and 2.5 micrometers in size, in areas of New Mexico where 20 the expected pollutants are expected to occur at 21 significant levels, such as at or near cities near 22 coal-fired plants -- power plants, mining operations, oil 23 and gas operations and petroleum plants. 24 Q. And can you describe the ozone monitoring 25 conducted by the Department?	180 1 complies with auditing and calibration requirements for 2 this ozone monitoring equipment? 3 A. Yes. The in-station computer calibration systems 4 perform weekly calibration checks. The Bureau evaluates 5 the results of these checks as part of the data validation 6 process, and the results are reported to the EPA. The 7 Bureau follows standard operating procedures for 8 uniformity and uniform practices and quality control of 9 each one of our ambient air monitoring stations. 10 Q. Thank you, Mr. Ellington. I have no further 11 questions for this witness 12 HEARING OFFICER ORTH: Thank you, Ms. Katz. 13 We're going to go through the list again. Ms. Fox, do you 14 have questions of Mr. Ellington? 15 MS. FOX: No, thank you, Madam Hearing Officer. 16 HEARING OFFICER ORTH: Ms. Paranhos? She may 17 have frozen again. 18 Professor Pacyniak or Mr. Jaynes? 19 PROFESSOR PACYNIK: No questions, Madam Hearing 20 Officer. 21 HEARING OFFICER ORTH: Thank you. 22 Ms. Devore or Mr. Vimont? 23 MS. DEVORE: No questions, Madam Hearing Officer. 24 HEARING OFFICER ORTH: All right. 25 Mr. Nykiel?

181 1 MR. NYKIEL: No questions, Madam Hearing Officer. 2 Thank you. 3 HEARING OFFICER ORTH: Thank you. 4 Mr. de Saillan? 5 MR. DE SAILLAN: No. 6 HEARING OFFICER ORTH: Thank you. 7 Mr. Hiser? 8 MR. HISER: No questions and thank you. 9 HEARING OFFICER ORTH: Thank you. 10 Mr. Rose? 11 MR. ROSE: I just have one question for 12 clarification. 13 CROSS-EXAMINATION OF BRENT ELLINGTON 14 BY MR. ROSE: 15 Q. And that is, are the monitors that you identified 16 for ozone include monitors in Bernalillo County, or are 17 those maintained by the city as opposed to the state? 18 A. Yes, those are maintained by the City of 19 Albuquerque's monitoring network. That's -- that's out of 20 our scope. 21 Q. Do you know how many monitors they maintain? 22 A. You know, that, I don't have readily available. 23 I don't know how many stations they operate. 24 MR. ROSE: Thank you. I have no further 25 questions.	183 1 VICE-CHAIR TRUJILLO-DAVIS: Thank you, Madam 2 Chair. I just have one question for clarification. 3 Mr. Ellington, how many air monitors are in Eddy County 4 and how many area monitors are in Lea County? 5 MR. ELLINGTON: Did you say -- I got Eddy County; 6 we have one monitor there. And then -- 7 VICE-CHAIR TRUJILLO-DAVIS: And Lea County? 8 MR. ELLINGTON: In Lea County, we have a station 9 in Hobbs, New Mexico as well, so that's one in each 10 county. 11 VICE-CHAIR TRUJILLO-DAVIS: And where are those 12 located at? I don't need specifics. I was looking more 13 for close to population, out in the middle of the county, 14 kind of just general? 15 MR. ELLINGTON: Yeah, in Eddy County, our station 16 is on the western side of Carlsbad, kind of on the 17 Southwestern side; very, very close to populated areas. 18 And in Hobbs, it is in a city wellyard in the 19 neighborhoods, close to an elementary school. 20 VICE-CHAIR TRUJILLO-DAVIS: Thank you. I 21 appreciate it. And thank you for your testimony. 22 MR. ELLINGTON: You're welcome. 23 HEARING OFFICER ORTH: Thank you. 24 Member Cates, do you have questions of 25 Mr. Ellington?
182 1 HEARING OFFICER ORTH: Thank you. 2 Mr. Janoe? 3 MR. JANOE: No questions, Madam Hearing Officer. 4 HEARING OFFICER ORTH: All right. Thank you. 5 Mr. Butzier? 6 MR. BUTZIER: No questions on behalf of GCA. 7 HEARING OFFICER: Thank you. 8 Ms. Gutierrez? 9 MS. GUTIERREZ: No questions. Thank you. 10 HEARING OFFICER ORTH: Thank you. 11 Mr. Neumann? 12 MR. NEUMANN: No questions. Thank you. 13 HEARING OFFICER ORTH: Thank you. And 14 Ms. Witherspoon, if you're with us? 15 All right. I'm going to turn to the Board now. 16 In the event you are not a panelist, please reach -- and 17 you have a question for this witness, please reach out 18 through the Chat. 19 EXAMINATION BY THE BOARD OF BRENT ELLINGTON 20 HEARING OFFICER ORTH: Madam Chair, do you have 21 questions of Mr. Ellington? 22 CHAIRPERSON SUINA: Madam Hearing Officer, I 23 don't have any questions. Thank you. 24 HEARING OFFICER ORTH: Thank you. 25 Vice-Chair Trujillo-Davis?	184 1 BOARD MEMBER CATES: I do not. Thank you. 2 HEARING OFFICER ORTH: All right. Thank you. 3 Member Bitzer? 4 BOARD MEMBER BITZER: No. Sorry 5 HEARING OFFICER ORTH: Thank you. Thank you. 6 Member Duval, I believe, had to step away. 7 Member Garcia? 8 MEMBER GARCIA: No questions. 9 HEARING OFFICER ORTH: No, okay. Thank you. 10 And Member Honker? 11 BOARD MEMBER HONKER: I have no questions. Thank 12 you. 13 HEARING OFFICER ORTH: All right. Thank you. 14 Is there any reason not to excuse Mr. Ellington? 15 Thank you very much, Mr. Ellington. 16 MR. ELLINGTON: You are very welcome, Madam 17 Hearing Officer. 18 MS. KATZ: I can't hear you. 19 HEARING OFFICER ORTH: I'm sorry. I was reading 20 a message from Professor Pacyniak, asking me to make a few 21 of the law students panelists. I guess they weren't able 22 to come in through the panelist link, so let me take just 23 a moment to do that. So Mr. Jaynes -- and who else was 24 it? Keifer Johnson. All right. I'm sorry, I don't 25 multitask as well as I think I do. Okay. Make panelists.

185 1 All right. I have taken care of that little bit of 2 business. 3 So should we turn now at this point, Ms. Katz, to 4 the rebuttal from Mr. Vimont and Ms. Devore before you go 5 to stakeholder information? 6 MS. KATZ: Madam Hearing Officer, I still have 7 one other witness for the monitoring, and so I believe it 8 would be appropriate to have Mr. Vimont go after that. 9 HEARING OFFICER ORTH: Oh, very sorry. Thank 10 you. Please call your next witness. 11 MS. KATZ: Thank you. The Department calls 12 Andrew Ahr. 13 HEARING OFFICER ORTH: Mr. Ahr, I see you on the 14 screen. If you would raise your right hand, please. 15 Thank you very much. And Andrew is the standard 16 spelling. Ahr, if you would spell it, please. 17 MR. AHR: Okay. My last name is spelled A-H-R. 18 HEARING OFFICER ORTH: Thank you. Ms. Katz, your 19 30 minutes starts now. 20 ANDREW AHR, 21 having been first duly sworn or affirmed, 22 was examined and testified as follows: 23 DIRECT EXAMINATION OF ANDREW AHR 24 BY MS. KATZ: 25 Q. Thank you. Mr. Ahr, where are you employed?	187 1 testimony? 2 A. No. 3 Q. And do you adopt your written testimony here 4 today? 5 A. I do, yes. 6 Q. Thank you. Mr. Ahr, can you describe for the 7 Board what a design value is and how design values for 8 ozone are determined? 9 A. Okay. A design value is a statistic that is used 10 to determine the compliance status of a given location 11 with respect to the National Ambient Air Quality 12 Standards, or NAAQS. Design values are typically used to 13 designate and classify nonattainment areas, as well as to 14 assess progress toward meeting the NAAQS. Design values 15 are computed and published annually by EPA's Office of Air 16 Quality Planning and Standards, and reviewed in 17 conjunction with EPA's Regional Offices. 18 The current NAAQS for ozone is 0.070 PPM or parts 19 per million. This ozone standard has been in effect since 20 October 26, 2015. The NAAQS is met at an ambient air 21 monitoring site when the three-year average of the 22 fourth-highest daily maximum 8-hour average ozone 23 concentration, or the design value, is less than 0.070 24 parts per million. The three-year average is computed 25 using the three most recent consecutive years of ambient
186 1 A. I'm employed at the Air Quality Bureau of the New 2 Mexico Environment Department. 3 Q. And how long have you worked for the Department? 4 A. I've been with the Department approximately four 5 years. 6 Q. And what is your current job title? 7 A. Currently, I'm the quality assurance staff 8 manager. 9 Q. And what are your job duties? 10 A. I manage the quality assurance auditors who 11 perform audits of the air monitoring equipment at all of 12 the air monitoring sites. I also manage the quality 13 assurance data handling specialists, who validate the 14 ambient air data reports precision and accuracy data to 15 EPA's air quality system and performs data certification. 16 Q. Thank you. And a copy of your resume has been 17 provided as NMED Exhibit 31? 18 A. Yes. 19 Q. And have you submitted written direct testimony 20 in this proceeding? 21 A. Yes, I have. 22 Q. And your full, written, direct testimony appears 23 as Exhibit 30? 24 A. Yes. 25 Q. Do you have any changes to your written	188 1 ozone monitoring data. Design values are also reported in 2 parts per million to three decimal places. 3 Federal regulations specify what is considered 4 ozone season for each state. Ozone season for most states 5 is generally considered to be from May through September; 6 however, in New Mexico -- because those are considered the 7 warmest months of the year. However, New Mexico's ozone 8 season is designated as all 12 months. 9 Hourly ozone -- let me start again. Hourly 10 average ozone concentrations are recorded at each ozone 11 monitor, parts per million, to the third decimal place, 12 with digits to the right of the third decimal place 13 truncated. The daily maximum 8-hour average ozone 14 concentrations are determined each day with ambient ozone 15 monitoring data. 16 Q. And can you discuss the quality assurance 17 requirements for design value data? 18 A. Yes. Four daily 8-hour average ozone 19 concentrations data is submitted to the EPA. The data is 20 reviewed by QA personnel at the Bureau to meet validity 21 requirements. Ozone monitoring equipment must pass an 22 annual accuracy audit to ensure that all flows, pressures, 23 lamp intensities, temperatures and instrument response to 24 ozone concentrations are within specifications. 25 Quarterly calibrations are performed on all ozone

189 1 monitoring instruments by personnel from the Bureau's 2 monitoring section. Ozone monitoring instruments -- ozone 3 monitoring instruments must pass quality control checks 4 which are performed automatically. If any ozone monitors 5 do not pass this weekly check, monitoring personnel make 6 required adjustments or fixes to the failing instrument to 7 bring it back within specifications. 8 QA personnel verify that all ozone monitoring 9 instruments pass this check and then submit the weekly 10 data to EPA through the air quality system website. Daily 11 checks are also performed by monitoring personnel to 12 ensure ozone monitoring equipment is recording and 13 operating within specifications. They look for any 14 equipment alarms and note any unusual or high value 15 concentrations above 0.070 parts per million. 16 The quality assurance data steward performs a 17 daily check of ozone data each morning to ensure the 18 instruments are recording, takes note of any data 19 abnormalities. Lastly, QA personnel perform annual data 20 certification on all data -- on all -- excuse me -- on all 21 monitoring data. The Bureau then submits the 22 certification letter and related reports to the EPA. 23 Q. Thank you. Can you describe the process for 24 submission of monitoring data to EPA, for calculation of 25 design values?	191 1 HEARING OFFICER ORTH: All right. 2 Mr. de Saillan? 3 MR. DE SAILLAN: No questions. Thank you. 4 HEARING OFFICER ORTH: Thank you. And 5 Ms. Paranhos is unable to unmute herself at the moment, 6 but she has no questions. 7 Mr. Hiser? 8 MR. HISER: Thank you, Madam Hearing Officer. I 9 do have a question or two. 10 CROSS-EXAMINATION OF ANDREW AHR 11 BY MR. HISER: 12 Q. Mr. Ahr, you said that the Department itself does 13 not calculate the design value, but EPA does; is that 14 correct? 15 A. That's correct. 16 Q. And has EPA calculated a design value for Chaves 17 County or not? 18 A. I do not believe so. 19 MR. HISER: Thank you. 20 HEARING OFFICER ORTH: Thank you. 21 MR. HISER: No further questions, Madam Hearing 22 Officer. 23 HEARING OFFICER ORTH: Oh, thank you. 24 Mr. Rose, do you have questions of Mr. Ahr? 25 MR. ROSE: I have no questions of this witness.
190 1 A. Yes. The Bureau's QA personnel review all data 2 to ensure that it meets all validity requirements and 3 submits it to the EPA on a quarterly basis. Once the 4 hourly ozone data is submitted, EPA uses it to calculate 5 the 8-hour average ozone concentration for each day, to 6 determine the first, second, third, fourth -- and fourth 7 highly daily -- highest daily maximum 8-hour ozone 8 concentrations. This is for the entire year, to produce 9 the design value. EPA, therefore, determines the design 10 value, not the Bureau. 11 Q. Thank you, Mr. Ahr, and I have no further 12 questions for this witness. 13 HEARING OFFICER ORTH: Thank you very much. I 14 will go through the list for questioning. Ms. Fox? 15 MS. FOX: No questions, Madam Hearing Officer. 16 HEARING OFFICER ORTH: Thank you. 17 Ms. Paranhos? 18 Professor Pacyniak? I saw you briefly. 19 PROFESSOR PACYNIK: No questions, Madam Hearing 20 Officer. 21 HEARING OFFICER ORTH: Thank you. 22 Ms. Devore or Dr. Vimont? 23 MS. DEVORE: No questions. Thank you. 24 HEARING OFFICER ORTH: All right. Mr. Nykiel? 25 MR. NYKIEL: No questions. Thank you.	192 1 HEARING OFFICER ORTH: All right. Mr. Janoe? 2 No questions. Thank you. 3 HEARING OFFICER ORTH: Thank you. Mr. Butzier? 4 MR. BUTZIER: No questions on behalf of GCA. 5 HEARING OFFICER ORTH: Thank you. 6 Ms. Gutierrez? 7 MS. GUTIERREZ: No questions. Thank you. 8 HEARING OFFICER ORTH: Thank you. 9 Mr. Neumann? 10 MR. NEUMANN: No questions. Thank you. 11 HEARING OFFICER ORTH: All right. And 12 Ms. Witherspoon, if you're with us. No? 13 I'm going to turn to the Board now. 14 If you are not a panelist and you have a question of 15 this witness, please reach out through the Chat. 16 Madam Chair? 17 EXAMINATION BY THE BOARD OF ANDREW AHR 18 CHAIRPERSON SUINA: Thank you, Madam Hearing 19 Officer. I do have one question to follow up from 20 Mr. Hiser's line of questioning. So as you responded to 21 Mr. Hiser, you don't have a value for Chaves County. Just 22 so I can clarify in my mind, is that -- so, therefore, 23 only the values are calculated for the monitoring stations 24 in those locations where the county -- where the 25 monitoring station is within the county; is that correct?

193 1 MR. AHR: How I understand it, yes. 2 CHAIRPERSON SUINA: Okay. So those -- a 3 follow-up question, Hearing Officer, if I may. So those 4 counties without a monitoring station don't have those 5 design values -- or the comparison to the design values 6 calculated; is that correct? 7 MR. AHR: That's correct. 8 CHAIRPERSON SUINA: Okay. Thank you so much. 9 HEARING OFFICER ORTH: All right. Thank you. 10 Vice-Chair Trujillo-Davis? 11 VICE-CHAIR TRUJILLO-DAVIS: Thank you, Madam 12 Hearing Officer. I only have a couple of follow-up 13 questions. So when the -- when you submit three years of 14 data to the EPA for your design value, how long does that 15 take to receive a design value back from the EPA? 16 MR. AHR: We don't -- we don't submit three years 17 at a single time. As I've stated, we submit the data 18 quarterly each year, and so -- and then -- then we certify 19 all of that data once a year, too. But EPA, I mean, they 20 have all of that data, they can come up with the come up 21 with the design value for the year after it's been -- say, 22 after it's been certified. The certifications are done at 23 the end of May. That's when we certify the previous 24 year's data. The requirement -- the required date is by 25 May 30th of the following year.	195 1 MR. AHR: You're welcome 2 MS. KATZ: Member Trujillo-Davis, I think with 3 witness Mike Baca, we'll also be addressing some of that 4 information so you can also ask him about that as well. 5 VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you very 6 much. 7 HEARING OFFICER ORTH: Thank you, both. 8 Member Cates, do you have questions of Mr. Ahr? 9 BOARD MEMBER CATES: I do not. 10 HEARING OFFICER ORTH: All right. Thank you. 11 Member Bitzer, do you have questions of Mr. Ahr? 12 BOARD MEMBER BITZER: I do. Mr. Ahr, just one 13 question. You mentioned that the equipment you use is 14 subject to an annual check, accuracy verification type of 15 deal. How often is it spot on, and are there occasions 16 when it's substantially off at the time of it? 17 MR. AHR: It has to meet -- it has to fall within 18 a specific range of specifications. It can't -- if it's 19 off at all, then it doesn't pass the annual audit. Then, 20 the monitoring people -- personnel -- the monitoring 21 personnel, the AQB go in and make the adjustments, the 22 calibrations to the tool. We don't -- the auditors -- the 23 QA auditors do not fix the tool. That's up to the 24 monitoring people to bring it back within specification. 25 Once it's back within the specifications,
194 1 So I would imagine that the EPA would probably 2 have that data after they receive -- after they receive 3 our certifications for it. 4 VICE-CHAIR TRUJILLO-DAVIS: So as we move through 5 this hearing and we're looking at data for these counties, 6 how -- what's the time frame we're actually looking at? 7 Are we looking at 2020, '19, '18, or are we looking 8 further back into those years? 9 MR. AHR: You mean for the current design value? 10 VICE-CHAIR TRUJILLO-DAVIS: Yes. 11 MR. AHR: The current design value is based on 12 2018, 2019 and 2020. So those are the latest design 13 values. 14 VICE-CHAIR TRUJILLO-DAVIS: Okay. And do you 15 request from EPA which counties you want to have design 16 values for? 17 MR. AHR: No, because it's dependent upon where 18 we have air monitor -- ozone air monitors for that. So, 19 EPA, they calculate what the design values are, and then 20 they assign those to the specific county or our monitoring 21 site. 22 VICE-CHAIR TRUJILLO-DAVIS: Okay. Thank you. 23 And I'm just trying to get a picture of how those 24 interactions between EPA and NMED work. So thank you for 25 taking the time to answer my questions.	196 1 according to the monitoring people, then we'll re-perform 2 the audit to make sure that it is passing. 3 BOARD MEMBER BITZER: So they do have to be 4 recalibrated fairly often? Is that what I'm hearing? 5 MR. AHR: No, I wouldn't say so. I mean, most of 6 the time they do pass their audit. Because it's -- 7 BOARD MEMBER BITZER: And you said it had to be 8 audited. Is that 1 percent, 2 percent? How -- how plus 9 or minus could it be and still pass? 10 MR. AHR: I don't have that in front of me right 11 now. I wish I could get that to you. I don't know that 12 number right off the top of my head. I'm sorry. 13 BOARD MEMBER BITZER: No rush. We're going to be 14 here for a couple of weeks. 15 MR. AHR: Okay. Yeah, because we do have it -- 16 it's specified on -- there's a -- we do have a document 17 that has all of that written on there, that says, yes, it 18 has to be within these specifications in order to pass. 19 MS. KATZ: We can provide that information. 20 MR. AHR: Yeah, we can submit that. I just don't 21 have it in front of me. 22 BOARD MEMBER BITZER: I'm just wondering what 23 constitutes good data and what the variations or 24 deviations are likely to be. That's good. Thank you. 25 MR. AHR: All right.

197 1 HEARING OFFICER ORTH: Thank you. 2 Member Garcia, do you have questions of Mr. Ahr? 3 BOARD MEMBER GARCIA: Yes, I do have one 4 question. Can you hear me okay? 5 MR. AHR: Yes. 6 BOARD MEMBER GARCIA: So who decides where the 7 monitor is located? Is that something that NMED proposes 8 and EPA approves? 9 MR. AHR: That's -- that's really beyond my 10 scope, I mean, how that's done. I think that the EPA, you 11 know, pretty much, you know, proposes where they go. 12 BOARD MEMBER GARCIA: Okay. Perhaps somebody 13 else can answer that a little later. That will be fine. 14 Thank you. 15 HEARING OFFICER ORTH: All right. Thank you. 16 Member Honker, do you have questions of Mr. Ahr? 17 BOARD MEMBER HONKER: No questions at this time. 18 Thank you. 19 HEARING OFFICER ORTH: All right. Thank you. 20 No one else has reached out through Chat. 21 Ms. Katz, did you have any redirect or can we 22 excuse Mr. Ahr? 23 MS. KATZ: We can excuse Mr. Ahr. Thank you. 24 HEARING OFFICER ORTH: All right. Thank you very 25 much, Mr. Ahr, for your testimony.	199 1 Air Resources Division in the park services. And his 2 curriculum vitae was submitted as National Park Services 3 Exhibit A in our rebuttal testimony. 4 And he will be providing a presentation today 5 focusing on ozone formation and monitoring, with emphasis 6 on the study that the National Park Service did in 7 Carlsbad Caverns. Thank you. 8 MR. VIMONT: Is it possible to share my screen? 9 I have a PowerPoint presentation. 10 HEARING OFFICER ORTH: Yes, I will make you a 11 presenter. Just give me a moment and remember, you have 12 30 minutes. 13 MR. VIMONT: Yep. 14 HEARING OFFICER ORTH: Let's see here. Change 15 role, make presenter. All right. It should be coming up 16 for you. 17 MR. VIMONT: Okay. Now, the next trick is to 18 figure out how it's -- which window it's going to want to 19 share here. These are always tricky when we get into the 20 presentation things here on a webinar. But let me share. 21 Okay. Let me try sharing screen two and then I will go to 22 presentation mode, which I hope -- I did that. Well, 23 interesting. Let's try that. 24 HEARING OFFICER ORTH: There we go. 25 MR. VIMONT: Okay. We have that. Let me -- what
198 1 Is it time now to turn to Mr. Vimont and 2 Ms. Devore? 3 All right. So, Ms. Devore, I see you on the 4 screen. And I believe you said you wanted to introduce 5 Mr. Vimont. What I'd like to do is swear both of you in. 6 If you would, each of you, raise your right hand. 7 LISA DEVORE AND JOHN VIMONT 8 having been first duly sworn or affirmed, were 9 examined and testified as follows: 10 HEARING OFFICER ORTH: Thank you. That was both 11 Ms. Devore: First name, Lisa, last name, D-E-V-O-R-E and 12 Mr. Vimont, V-I-M-O-N-T. 13 Go ahead, Ms. Devore. 14 DIRECT EXAMINATION OF JOHN VIMONT 15 MS. DEVORE: Okay. So I'd like to introduce 16 Mr. Vimont, with the National Parks Service. He holds a 17 Bachelor of Science in Atmospheric Sciences, as well as a 18 Master of Science in Atmospheric Science. And he has 19 worked for the park service since 1991. And before that, 20 held positions with the Environmental Protection Agency 21 and the State of New Mexico Air Quality Bureau. And he is 22 currently the acting chief for the Air Resource -- 23 National Air Resources Division for the National Park 24 Service and has also served in roles as meteorologist, and 25 is the chief of the Research and Monitoring Branch of the	200 1 happens if I do this? Are you seeing the one with the 2 slides on the side or are you seeing the presentation 3 mode? 4 HEARING OFFICER ORTH: It was better earlier, 5 because now we see something that is split. 6 MR. VIMONT: Okay. Let me get out of this. We 7 can do it either way. All right. Okay. So you're seeing 8 it okay now? 9 HEARING OFFICER ORTH: Yes, I see one large 10 screen and then the -- see one large slide and then, you 11 know, little thumb nails of the slides along the left 12 margin which aren't distracting. Please go ahead. 13 MR. VIMONT: Yeah, let's just do that. It gets 14 the point across at any rate. So we're the National Park 15 Service that we're offering technical comments on the 16 proposed rule. We have a quick synopsis of our results 17 that we want to present. First of all, ozone 18 concentrations exceed the level of National Ambient Air 19 Quality Standards for ozone at Carlsbad Caverns National 20 Park in New Mexico. 21 We'll go over our monitoring here in a minute, 22 but the -- basically, our monitoring at Carlsbad Caverns 23 follows the EPA guidelines that were outlined by the 24 previous presenters for the state. It's certified data 25 just like the state data is.

201 1 Volatile organ -- excuse me. Volatile organic 2 compounds measured at Carlsbad Caverns National Park 3 indicate that the main sources of volatile organic 4 compounds affecting ozone formation are from oil and gas 5 activities. Nitrogen oxide emissions that affect high 6 ozone concentrations at Carlsbad Caverns National Park are 7 from localized sources, meaning somewhere in the vicinity 8 of Eddy County, or that kind of a scale, not from the long 9 distance transport. 10 The measures proposed in this rule will help to 11 reduce high ozone concentrations. We'll talk about this 12 more as a rebuttal later on. And based on the data that 13 we have, we think that the NOx and VOC control measures 14 are necessary to reduce ozone. 15 Okay. There we go. First, go over some of the 16 general information about air quality at national parks. 17 There's a variety of laws out there that we operate under 18 to protect our resources in national parks and wilderness 19 areas. The National Park Service relies on states and the 20 EPA to implement air quality regulations so that it can 21 protect park resources. We do not have regulatory 22 authority, but we do have authority to measure what's 23 happening in our national parks. Actually, I should say 24 your national parks. It's all of our national parks. 25 The ground level ozone formation, one of the	203 1 located, you know, and affected by this: Carlsbad Caverns 2 National Park; Guadalupe Mountains National Park at Chaco 3 Cultural National Historical Park and Mesa Verde National 4 Park in Colorado. Most of the data presented here are 5 focused on studies from Carlsbad Caverns. We do also have 6 ozone monitors at Chaco Cultural and at Mesa Verde. 7 The managers of Carlsbad Caverns National Park 8 have been concerned about the development there, and asked 9 us to put in some monitoring down there several years ago. 10 As we monitored air, we've -- as we said, the ozone 11 monitoring we have meets the EPA criteria that was 12 described earlier. It meets the design concentrations 13 down in here for the various years. 14 As we get back into here, the particular monitor 15 we had was not being operated that way, but in recent 16 years it has been operated according to EPA specs. You 17 know, they're asked -- in looking at this, if you look at 18 trends in nitrogen oxide, it's from satellite data. Lots 19 of -- it's going down to claim the urban areas, we see 20 that. But areas such as the Permian Basin down here, you 21 can see the -- this little pink box down in here is 22 showing increases in NOx over this time period. 23 Given that, we have -- we did some special 24 studies down there in 2019 -- in 2017 and 2019. In 2017 25 we did a -- we did kind of a survey study around a number
202 1 previous speakers discussed this; it's formed from a 2 complex reaction of nitrogen oxides and VOCs in the 3 presence of sunlight. It's just a little cartoon to kind 4 of illustrate that. It can impact vegetation and human 5 health. You can see here some of the chlorotic model we 6 see on leaves that can happen from high ozone 7 concentrations. And it's an EPA-regulated pollutant and 8 that's why we're all here. 9 You know, we're focusing today on VOC and NOx. 10 The other aspect of this is we have visitors that come and 11 they exercise in the park. We have staff itself that are 12 working outside and ozone can affect the health of the 13 visitors and our staff, so we are concerned about that. 14 The sources of ozone, this schematic illustrates 15 that air pollutants are transported into parks; they're 16 generally not formed in the park or, you know, the source 17 are not in the park so it comes to the park from outside 18 sources. And it affects our staff and visitors, as I said 19 before. 20 We have extensive oil and gas activities 21 throughout the Midwest and the West. There's been 22 certainly an increase in oil and gas development in many 23 areas of the country, and including the areas that are 24 going to be affected by this proposed rule. The several 25 parks that we -- that are in New Mexico, you know, are	204 1 of parks in the Western United States. And from that, 2 Carlsbad Caverns showed up as having very unique 3 signatures of volatile organic compounds. 4 We talk about how ozone formation takes place 5 from reactions of VOC and NOx in the presence of sunlight. 6 The different VOCs have varying reactivities and in turn, 7 they affect ozone formation to varying degrees. The 8 different types of VOCs and the mix of the VOCs also 9 provide unique markers for identifying sources. The types 10 and the emission, you know, emission origins. 11 The remainder of this presentation will show that 12 the markers indicate the dominance of oil and gas sources 13 are found at Carlsbad Caverns National Park. The -- you 14 know, during the studies we've been able to identify more 15 than 70 different VOCs through our monitoring efforts. 16 We did the survey study in April to September of 17 2017, where we took RAD samples that you can see in the 18 picture here on the side where at times they were 19 evacuated canisters that are inert, to allow us to sample. 20 The studies were done at four national parks and 21 they measured high ozone so we wanted to determine the mix 22 of VOC that we were seeing that in these areas across the 23 country or across the West at least: Carlsbad Caverns is 24 one, Great Basin National Park, Grand Canyon National Park 25 and Joshua Tree National Park. Each has their own unique

205 1 source regions, but we wanted to see what the differences 2 were between them. 3 Average VOC concentrations here are of different 4 types, sources. Alkanes are related to oil and gas and 5 transportation. The alkenes, ag -- and transportation. 6 Ethyne is a combustion product. Biogenics are measured 7 here, natural emissions. And aromatics from urban oil and 8 gas operations. 9 The -- we use park abbreviations here. CAVE is 10 Carlsbad Caverns. Great Basin is -- or GRAB is Great 11 Basin. GRCA is Grand Canyon and Joshua Tree is JOTR. And 12 ROMO is also on here, it was a separate study just for 13 comparison, which is Rocky Mountain National Park. If you 14 notice, the total VOCs, and especially the alkanes 15 associated with oil and gas are up to 5 to 10s higher -- 16 excuse me -- 5 to 10 times higher at Carlsbad Caverns than 17 they are at the other parks. 18 So there's extensive oil and gas in the area east 19 of Carlsbad Caverns, which raises the question: Where 20 does the air come from during periods of high ozone? 21 Using back trajectory analysis, you know, during the 2017 22 study, we found that the high ozone corresponds to airflow 23 from the East and Southeast toward Carlsbad Caverns 24 National Park. 25 The warm colors are more likely to be coming from	207 1 The next slide is going to show average 2 concentrations of ozone, NO and VOCs during the 2019 3 study. Each figure shows the average ozone and the 4 sunlight intensity for each hour of the day. And the 5 three charts show the hourly daily patterns of different 6 compound classes. So, how the NO, which is unreacted 7 NOx -- think of it that way; most of what comes out of a 8 combination source, a tailpipe or a smoke -- or a stack 9 like a compressor station, comes out as NO and then reacts 10 the NO2 and keeps going. 11 Ethane is one of the most abundantly-emitted 12 VOCs, built up -- it builds up and is reacted away then. 13 Then the formation of alkyl nitrates, it's one of the 14 classes of VOCs that's formed through this set of 15 reactions in the atmosphere. It has a similar pattern to 16 ozone, as you can see. 17 So these three charts show the average 18 concentration of NO, VOCs, ethane and 2-butyl nitrate and 19 ozone throughout the day. Concentrations are plotted 20 along with this daily solar insolation, it's an idealized 21 solar insolation plot -- oops, sorry about that. 22 You can see that the ozone peaks in the later 23 afternoon; it's a typical ozone production. There's a 24 spike in fresh NOx emissions in the morning, that tapers 25 off as it reacts during the daylight hours. Similarly,
206 1 these areas during the high concentrations. The cool 2 colors are less likely to come from these areas. So you 3 can kind of see that this area where previously we showed 4 high NOx emissions in the satellite data, the same area 5 here where we're seeing high ozone, correlating with that 6 transport direction. 7 When -- based on the 2017 study, we conducted 8 another study in 2019. And it showed in the picture 9 earlier, the 2017 study, used evacuated sampler containers 10 which we also had some of those during this study. But 11 the -- we had many specialized research grid instruments 12 where we could get high time resolution measurements of 13 the VOC and nitrogen compounds that affect ozone 14 formation. 15 Carlsbad Caverns National Park, there's some 16 objectives, it was to figure out what the primary VOC 17 drivers are of regional ozone formation. You know, what 18 is the nitrogen budget, that helps produce ozone, and what 19 are the species of the various compounds that contribute 20 to or limit the aerosol formation, which we're not talking 21 about here, but at the park service we're also interested 22 in that. That was one of the objectives. And what's 23 shown on the following slides, oil and gas emissions are 24 driving the formation of ozone in Carlsbad Caverns. Okay. 25 All right. How do these VOC and NOx interact?	208 1 there are more ethane -- there's more ethane peaking in 2 the morning that subsequently reacts in the ozone forming 3 process, so it diminishes later on in the day. 4 The 2-butyl nitrate, which is a reaction product 5 that peaks around the time the ozone peaks, indicating the 6 reactions of the ozone-forming pollutants occurred during 7 that day and that that ozone wasn't transported to the 8 area from afar. 9 The 2017 and 2019 study -- studies both showed 10 similar results at Carlsbad. This slide is a little 11 confusing. We have the 2017 chart here and then some 12 average values from 2019. Ethane is a distinctive 13 indicator of emissions from oil and gas operations that 14 can be seen in Carlsbad Caverns. The 2017 study stands 15 out from the other parks that we studied. In most areas 16 when ethane is measured in the background, you'd expect 17 around 1 ppv -- 1 ppb by volume. In 2019, the average for 18 the six-week study was just over 17 ppv -- ppb -- excuse 19 me. And similarly, some values exceeded 100, so 20 definitely Carlsbad stands out from other areas that we 21 studied. 22 Oil and gas emission tracers, something called the 23 i-to-pentane ratio. Fresh gasoline emissions typically 24 have a ratio of 1 and 1/2 to 3. Fuel evaporation runs 25 around 1.8 to 4. Vehicular exhaust, 2.2 to 3.8. As you

209 1 can see in both 2017 and 2019, the i-to-pentane ratio is 2 less than 1, indicating oil and gas again. It's 3 consistent between these two years. 4 And the reason why 2019 are higher is because 5 they cover all hours of the day, whereas we were only 6 sampling in the afternoon in 2017. So, again another 7 indication to the ethane, i- and n-to-pentane ratio that 8 we were seeing in oil and gas contributing to ozone 9 formation at Carlsbad Caverns National Park. 10 This slide shows that there's a fresh buildup of 11 NOx at night, which is then processed with the VOCs and 12 sunlight reactions to form ozone. The NOx is generated in 13 the vicinity; NOx from the farther away would have a much 14 lower NOx to NOy. NOy is all different compounds. And 15 NOx is usually defined as NO plus NO2, whereas, NOy is NO 16 plus NO2 and everything else -- nitric acid, different -- 17 lots of different compounds. So it's really the total of 18 all of the reactants. So, NOx from farther away would 19 have a lower NOx to NOy ratio than we have in this chart. 20 And while this slide is showing a particular 21 multiday event, it is important to note that the same NOx 22 to NOy ratio is persistent throughout the entire study 23 period, indicating fresh NOx emissions. So it's not 24 coming from very far distances away. 25 Air mass aging, alkyl nitrates are products of	211 1 These are done with regulatory monitors following the EPA 2 requirements for operation and quality assurance. The NPS 3 has studied ozone formation at a number of parks. 4 Carlsbad Caverns National Park stands out as being the 5 most affected by oil and gas sources. Two should have 6 been done at Carlsbad in 2017 and 2019, during these times 7 when peak ozone concentrations are measured there. The 8 two studies show consistent results. 9 The volatile organic compounds measured at 10 Carlsbad indicate that the main sources of VOCs affecting 11 ozone formation are from the oil and gas activities. 12 Nitrogen oxide emissions that affect high ozone 13 concentrations at Carlsbad National Park are from nearby 14 sources. The measures proposed in the rule will help to 15 reduce high ozone. And NOx and VOC control measures are 16 necessary to reduce ozone at the park, and really in the 17 region in general. 18 That's my presentation and thank you for your 19 listening. 20 HEARING OFFICER ORTH: Thank you, Mr. Vimont. 21 Let me ask about exhibits. Ms. Devore mentioned Exhibit 22 A. And I'm wondering -- I didn't see objections from 23 either NMOGA or AP -- IPANM to any of your exhibits, or 24 anyone else to any of your exhibits. I'm wondering if you 25 just want to offer all of your exhibits right now.
210 1 the -- during the VOC NOx reactions that form ozone. The 2 ratios of the alkyl nitrates to their parent compounds can 3 give us a good estimate of how long the air pollutants 4 have been reacting when they reach the park. This graph 5 shows that the vast majority of the reaction times 6 between -- below 12 hours. This clearly shows the ozone 7 forming NOx and VOCs were nearby, the fact that the points 8 fall off the idealized model, it's very idealized. It 9 implies that the model doesn't capture everything that is 10 occurring. But the majority of things are happening in 11 there fairly quickly. 12 At this point I'm going to deviate from here. I 13 think the ozone concentrations at Carlsbad Caverns 14 National Park, they frequently exceed the National Ambient 15 Air Quality Standards for ozone. The information 16 presented highlights the need for both NOx and VOC 17 reductions and supports the 18 proposed engine and turbine 18 standards. 19 The rest of the -- this part of the slide will be 20 discussed later when we're -- when you're talking about 21 the actual elements of the rule. Let's see. This is also 22 on that. 23 So our summary again: Ozone concentrations 24 exceed the level of the National Ambient Air Quality 25 Standards for ozone at Carlsbad Caverns National Park.	212 1 MS. DEVORE: Yes, we have Exhibits A through E. 2 HEARING OFFICER ORTH: A through E. Unless 3 someone has changed their mind and reaches out right now, 4 I'm going to admit Exhibits A through E for the National 5 Park Service. No? 6 Thank you very much. National Park Service 7 Exhibits A through E are admitted. 8 (National Park Service Exhibits A - E received 9 into evidence at this time.) 10 Ms. Katz, do you have questions of Mr. Vimont? 11 MS. KATZ: I do not, Madam Hearing Officer. 12 HEARING OFFICER ORTH: Thank you. 13 Ms. Fox? 14 MS. FOX: No, Madam Hearing Officer. 15 HEARING OFFICER ORTH: Thank you. 16 Ms. Paranhos? 17 MS. PARANHOS: No questions, Madam Hearing 18 Officer. 19 HEARING OFFICER ORTH: Thank you. 20 Professor Pacyniak? 21 PROFESSOR PACYNIK: No questions, Madam Hearing 22 Officer. 23 HEARING OFFICER ORTH: Thank you. 24 Let's see. Mr. Nykiel? 25 MR. NYKIEL: No questions, Madam Hearing Officer.

213 1 Thank you. 2 HEARING OFFICER ORTH: All right. 3 Mr. De Saillan? 4 MR. DE SAILLAN: No questions. Thank you. 5 HEARING OFFICER ORTH: Thank you. 6 Mr. Hiser? 7 MR. HISER: Madam Hearing Officer, yes, I will 8 have just a few questions for Mr. Vimont. Thank you. 9 HEARING OFFICER: All right. Go ahead. 10 CROSS-EXAMINATION OF JOHN VIMONT 11 BY MR. HISER: 12 Q. Mr. Vimont, in your testimony, you testified that 13 you looked at ethane and at one point you characterized it 14 as a volatile organic compound. Are you testifying here 15 today that you believe that ethane is a significant 16 contributor to ozone formation, or were you using that as 17 a tracer to identify putative impacts from oil and gas 18 sources? 19 A. Definitely as a tracer. If Dr. Sive is on the -- 20 he should be here, one of our other witnesses, he may be 21 able to better answer the -- about the reactivity of 22 ethane. I know it's less. It contributes but I -- to 23 what degree -- if he can get unmuted, I'm not sure. 24 HEARING OFFICER ORTH: So let me see. 25 MR. HISER: Barkley Sive.	215 1 HEARING OFFICER ORTH: Okay. And if you would, 2 please, raise your right hand. Do you swear or affirm to 3 tell the truth? 4 MR. SIVE: I do. 5 HEARING OFFICER ORTH: Thank you very much. 6 Please, go ahead and answer the question. And thank you 7 for your help. 8 MR. SIVE: Sure. It's primarily a tracer, but in 9 this case, too, the reactivity comes into play because 10 you're looking at levels that are two orders of magnitude 11 higher than typical background levels. Normally, the 12 lifetime of ethane -- we'll just take the annual 13 average -- it's two to three months in the atmosphere. 14 More like two months, to pick a nice round number. 15 However, when we look at the reactivity, the fact 16 that now you are two orders of magnitude higher in 17 concentration, the fact -- the rate of reaction with 18 hydroxyl radicals, which is the primary removal mechanism 19 of ethane from the atmosphere, you have to factor that in, 20 so now ethane actually becomes important as a potential 21 ozone-producing molecule. 22 So the fact that the concentrations are so high 23 balance out the fact that the rate of reaction in the 24 atmosphere is slow. 25 MR. VIMONT: Thank you, Dr. Sive.
214 1 HEARING OFFICER ORTH: I'm sorry. Mr. Hiser, 2 did you say something? Oh, there you are. 3 MR. HISER: Madam Hearing Officer, obviously, 4 Mr. Sive is not listed as a witness. 5 HEARING OFFICER ORTH: Right. 6 MS. DEVORE: He is listed as a witness for the 7 park service in our exhibits. 8 MR. HISER: My mistake. 9 HEARING OFFICER ORTH: I'm going to see if he is 10 among the attendees. I think he is because he just 11 reached out to Chat. Hold on one second while I make him 12 a panelist. 13 Mr. Sive, would you join us on the screen, 14 please? Mr. Vimont, should we take down your slide? 15 MR. VIMONT: Yes, and we can bring them back up 16 if we need to here. Let me see if I can release them 17 here. 18 HEARING OFFICER ORTH: All right. Mr. Sive, are 19 you with us? 20 MR. SIVE: Yes, I am. To answer the question -- 21 HEARING OFFICER ORTH: Well, hold on. Hold on 22 one second. First, we need you to spell your first and 23 last name. 24 MR. SIVE: First name is Barkley, B-A-R-K-L-E-Y. 25 Last name is Sive, S-I-V-E.	216 1 MR. SIVE: So there is the two-fold -- it is, in 2 fact, utilized in two different ways. I'll stop there. 3 CONTINUED CROSS-EXAMINATION OF JOHN VIMONT 4 Q. (BY MR. HISER) Mr. Vimont, in the draft or in 5 the slides that you presented today, you showed a -- I 6 think a back calculation of the sources of the oil and gas 7 that showed hot and warmer temperatures versus cooler 8 temperatures? 9 A. Yes. 10 Q. And I think that exhibit tended to show that 11 those -- that the gas was coming solely from New Mexico 12 sources, or was there also a significant Texas component 13 to that? 14 A. That particular slide shows transport during high 15 ozone emits from both New Mexico and Texas. 16 Q. Thank you. And then, in the evaluation that 17 you've done, and the recommendations you're making here, 18 have you given any consideration to the impact of the Oil 19 conservation Division's rules that are now restricting the 20 flaring, particularly to the venting of natural gas, 21 moving forward? 22 A. No. This was a measurement program primarily 23 that we were showing and analysis of that data. There 24 were no projections made. It's strictly what was 25 happening on the ground in 2017 and 2019 at Carlsbad

217 1 Caverns. 2 Q. But to the extent that those rules will reduce 3 the venting of natural gas, would you expect that to 4 decrease local ethane concentrations around Carlsbad? 5 A. Honestly, I -- I -- I -- I really don't know the 6 answer to that. 7 Q. Thank you. Appreciate it. 8 MR. HISER: No more questions, Madam Hearing 9 Officer. 10 HEARING OFFICER ORTH: All right. Thank you, 11 Mr. Hiser. 12 Mr. Rose, do you have questions of Mr. Ahr or -- 13 MR. ROSE: I think we're on Mr. Vimont, but I 14 think Mr. Ahr was talking -- 15 HEARING OFFICER ORTH: I'm sorry. 16 MR. ROSE: It's been a while. 17 HEARING OFFICER ORTH: I'm sorry about that. 18 Did you say no questions or do you have some? 19 MR. ROSE: I have no questions. 20 HEARING OFFICER ORTH: Okay. Thank you. 21 Let's see. Mr. Janoe? 22 MR. JANOE: No questions. 23 HEARING OFFICER ORTH: All right. 24 Mr. Butzier? 25 MR. BUTZIER: No questions.	219 1 MR. VIMONT: This is at one -- one station that 2 we have in the park, it's up near the visitors' center 3 area if you're familiar with the park, and it's just the 4 one station. 5 Now as I indicated in my talk, the early years -- 6 we see 2016, '17 there, we had a portable station, we call 7 it, that was not a regulatory station, to see what was 8 even going on. And in the later years here, we have the 9 full regulatory station there. So, like, from '73 to 10 2020, we calculated the design value following the EPA 11 guidance. We could also -- you could go to the EPA's 12 database that was referenced by the state earlier. Our -- 13 our data goes in there as well, so you could get that same 14 thing from there. But it does -- the 8-hour fourth-high 15 ozone concentration exceeds the ambient air quality 16 standards in the park. 17 CHAIRPERSON SUINA: Thank you for that, and you 18 answered all of my follow-up questions in your answer so I 19 appreciate that. Thank you, Mr. Vimont, and thank you, 20 Madam Hearing Officer. Those are all the questions I have 21 for now. 22 HEARING OFFICER ORTH: Thank you. Vice-Chair 23 Trujillo-Davis? 24 VICE-CHAIR TRUJILLO-DAVIS: Thank you, Madam 25 Hearing Officer. I actually don't have any questions. I
218 1 HEARING OFFICER ORTH: Okay. Ms. Gutierrez? 2 MS. GUTIERREZ: No questions. 3 HEARING OFFICER ORTH: Okay. Mr. Neumann? 4 MR. NEUMANN: No questions. Thank you. 5 HEARING OFFICER ORTH: All right. 6 And Ms. Witherspoon? She may have stepped away. 7 MS. WITHERSPOON: No questions. 8 HEARING OFFICER ORTH: Oh. 9 MS. WITHERSPOON: No questions. 10 HEARING OFFICER ORTH: Thank you. 11 So I'm going to turn to the Board members now. 12 And while I do that, if you are not a panelist and you 13 have a question of Mr. Vimont, please indicate that in the 14 Chat. 15 EXAMINATION BY THE BOARD OF JOHN VIMONT 16 HEARING OFFICER ORTH: Madam Chair, do you have 17 questions of Mr. Vimont? 18 CHAIRPERSON SUINA: Thank you, Madam Hearing 19 Officer. Yes, I have a couple of questions. So I think 20 on one of your slides you had presented some -- some data 21 regarding the 8-hour fourth-high ozone data between 2016 22 to 2022. And I was just wondering, how many -- was it 23 just from one monitoring station or were there multiple 24 monitoring stations around Carlsbad that you -- that -- 25 that were utilized to capture this data?	220 1 just wanted to thank you for your presentation. 2 HEARING OFFICER ORTH: Member Cates, do you have 3 questions of Mr. Vimont? 4 BOARD MEMBER CATES: I do. Sir, do you happen to 5 know what the visitation count to that park is annually? 6 And if we can take the COVID years, I guess, and set them 7 aside, how many people visit Carlsbad annually? Do you 8 have any idea? 9 MR. VIMONT: I do not, but we do definitely 10 within the park service have those statistics and I can 11 get them for you. 12 BOARD MEMBER CATES: And so do you feel like -- 13 so I -- I'm guessing you probably don't know this one 14 either, but I'm just wondering what -- has anyone ever 15 done an economic impact study on what the -- how valuable 16 that park is to the economy of that community? 17 MR. VIMONT: Again, within the park service, we 18 do those kind of economic studies. I do -- I don't know 19 if we have it specific to Carlsbad Caverns, but I can also 20 find that as a follow-up, if you'd like. 21 BOARD MEMBER CATES: Do you live down there, sir? 22 MR. VIMONT: No, I am currently in -- living up 23 near Denver, Colorado, up in the foothills west of Denver. 24 BOARD MEMBER CATES: Yeah, and then I'm wondering 25 if you think -- if you've heard, if there's any evidence

221 1 for the possibility that the, you know, the oil and gas 2 industry as we're describing it here, you know, 3 specifically with regard to the emissions, if we can call 4 it that generally, has it affected the -- the quality of 5 the experience of visitors, do you think? 6 MR. VIMONT: Yes. Certainly, as a -- well, ozone 7 is a visible gas, I mean at some point the -- these levels 8 that are above the national ambient air quality standard 9 certainly affects the ability of some visitors to recreate 10 outdoors. An aside to this, it's not an air quality 11 issue, but certainly at night, looking out from the mesa, 12 out toward the east, certainly the lights and the flaring 13 are extremely visible from the park, rather than having a, 14 you know, dark sky that we had experienced in a lot of 15 parks, it's a semi-industrial sort of a look to it out 16 there. 17 BOARD MEMBER CATES: And then, just to kind of 18 follow-up, I'm wondering about the impact on the -- oh, 19 what's the word on the -- I don't know, the branding of 20 the park. You know, if it were -- if it were a business, 21 which it sort of is, but not really, but if it were, you 22 know, a product, do you think the product is blemished 23 by -- has been blemished over the years by the -- what 24 we're talking about here? 25 MR. VIMONT: Yes. I mean, the -- within the	223 1 BOARD MEMBER BITZER: I do not. 2 HEARING OFFICER ORTH: All right. Thank you. 3 Member Garcia? 4 MEMBER GARCIA: No questions. 5 HEARING OFFICER ORTH: Thank you. 6 And Member Honker? 7 MEMBER HONKER: Yes, I did have follow-up to 8 Chair Suina's question. The data collected in the 2019 9 study, was that all collected from the one station you 10 mentioned earlier that's near the visitors' center, or did 11 you have some additional stations while you were 12 conducting that study? 13 MR. VIMONT: Most of what I presented here, the 14 high resolution, high-time resolution data that was 15 collected in one of the slides that showed a picture of 16 all the instruments there, it was near the visitors' 17 center. It's not right at the visitors' center, but that 18 general area, there's -- there's other park service office 19 buildings and things there, near there. That was all 20 there. 21 We did also collect canister samples out in 22 various places around the region at different times and 23 those -- those were not included in this presentation 24 right now. We're still analyzing some of that and seeing 25 how it all fits together.
222 1 parks themselves -- parks are usually -- not all of them, 2 but most of them are usually in fairly remote areas. And 3 when the park was first established, that area would have 4 been considered fairly remote, but now the -- well, it has 5 to be near oil and gas and development of oil and gas is 6 and industrial operation, so, you know, we -- as that has 7 increased, yes, it's a -- we normally think of parks as 8 being pristine remote areas. And with development around 9 the park it's not as pristine and remote as it could be. 10 BOARD MEMBER CATES: Yeah, right. And so, what 11 about the encroachability? I haven't been to Carlsbad in 12 years. And I'm just, you know, I've heard that the roads 13 are congested and things, and you know, it's just harder 14 and harder to get around there as it used to be. Have you 15 heard that kind of thing? 16 MR. VIMONT: I have not, but I'm not down there 17 myself, so. 18 BOARD MEMBER CATES: Yeah, yeah. All right. 19 Well, and so my questions are slightly off topic perhaps, 20 but I appreciate it, so thanks. Thanks for the testimony. 21 Thank you, sir. 22 MR. VIMONT: Uh-huh. 23 HEARING OFFICER ORTH: All right. Thank you, 24 Member Cates. 25 Member Bitzer, do you have questions?	224 1 BOARD MEMBER HONKER: Okay. Thank you, 2 Mr. Vimont. No further questions. Thanks. 3 MR. VIMONT: Thank you. 4 HEARING OFFICER ORTH: Thank you, Member Honker. 5 I see in Chat, no one reaching out to request the 6 opportunity to question. Oh, let's see. Member Bitzer 7 has a question. Go ahead. 8 BOARD MEMBER BITZER: Sorry. I meant to ask this 9 question, and then, "squirrel." Yeah, the data was 10 collected on a quarterly basis through '18, '19 and '20; 11 is that correct? 12 MR. VIMONT: You're referring to the ozone data? 13 BOARD MEMBER BITZER: Yeah. 14 MR. VIMONT: Actually, it's -- the instruments 15 collect the data on like a one-second basis. It gets 16 aggregated into an hour, which then gets aggregated into 17 these other things, and then it gets reported to EPA, I 18 believe it's on a quarterly basis, but -- 19 BOARD MEMBER BITZER: I think I may have heard -- 20 I think I may have heard somebody else mention the 21 quarterly report earlier. But I'm wondering if we have 22 any data from the first couple of quarters yet from 2021. 23 MR. VIMONT: We do. I don't have that on the tip 24 of my tongue right now, but... 25 BOARD MEMBER BITZER: That would be interesting

225 1 to get a look at over the next couple of weeks, I would 2 think. 3 MR. VIMONT: Dr. Sive was actually down there. 4 He's still on the call, he may be able to tell you if he's 5 seen any other exceedances in the last couple of months. 6 HEARING OFFICER ORTH: Dr. Sive, are you still 7 with us? 8 DR. SIVE: I am. Yes, I think we -- July and 9 August we had, I think, about eight exceedances if I'm 10 remembering, six in July. I know for sure six in July. 11 BOARD MEMBER BITZER: So, overall, the trend is 12 still upward, or is the trend between '19 and '20 -- 13 because it went down a little bit between '19 and '20. I 14 think it peaked in '19 and down a bit in '20. So are 15 we -- are we trending down or up so far in '21? 16 DR. SIVE: I would say we have at least as many 17 exceedances this year as sort of like 2019. This is just, 18 you know -- this isn't referencing final data yet and we 19 aren't through the entire year either, but, you know, 20 across the entire U.S., and globally, too, you saw 21 decreases in things like ozone because of the total 22 pandemic. So I think that's one of the reasons why we 23 saw, you know, everything sort of tick down in 2020. And 24 I would say comparatively, 2021 looks to be more like 2019 25 than, per se, 2020.	227 1 MR. VIMONT: When was the standard established? 2 DR. SIVE: The ozone standard? 3 MR. VIMONT: Yeah, this current one. 4 DR. SIVE: It was 2015. 5 MR. VIMONT: 2015, okay. 6 HEARING OFFICER ORTH: I think we heard testimony 7 about that earlier from the Department actually. Okay. 8 So do you have anything by way of follow-up, 9 Mr. Vimont, following all of these questions to you? 10 MR. VIMONT: No, other than to say, you know, I 11 think the evidence is fairly clear that there's -- there's 12 exceedances of the ozone standard there, and that a part 13 of the solution is going to be looking at the oil and gas 14 emissions in that area to -- I think that's what the data 15 shows us. 16 HEARING OFFICER ORTH: All right. Thank you very 17 much. You're Excused. 18 MR. VIMONT: Thank you. 19 HEARING OFFICER ORTH: And does that complete the 20 rebuttal testimony on the ozone formation and monitoring 21 from the National Park Service? 22 MR. VIMONT: It does. 23 HEARING OFFICER ORTH: Thank you both very much. 24 Well, we've been going now for quite some time, 25 an hour and 20 minutes, so let's take a 15-minute break
226 1 MR. VIMONT: And I would say that I -- at this 2 point we can't make any definitive statements about any 3 trends with 2021 data, it's not been finalized yet. But 4 the preliminary data indicates that we are still -- still 5 exceeding the standard at the park. 6 BOARD MEMBER BITZER: Thank you. 7 HEARING OFFICER ORTH: All right. Thank you very 8 much. 9 So Ms. Devore, I appreciate your attempt to be 10 helpful by putting certain links to data around the park 11 in the Chat, but nothing that comes through the Chat is 12 going to be made part of the record. So what I'd like to 13 do -- I really do appreciate you responding to Member 14 Cates's questions with all of that. If you would, 15 yourself, go to this link, PDF whatever it is you find 16 there that would be responsive, put a new exhibit letter 17 on it and send it to the service list, including Pam, of 18 course. And Pam will forward it to the Board members. 19 MS. DEVORE: Okay. Will do. 20 HEARING OFFICER ORTH: Now I see Todd Hawthorne 21 has a question for -- I'm not sure if it's for Mr. Vimont 22 or Dr. Sive: "When was the standard established"? 23 MR. VIMONT: Well, this -- the current 24 standard -- Barkley, do you remember which? 25 DR. SIVE: I didn't hear the question, I'm sorry.	228 1 and return at 3:35. Thank you. 2 (Recess taken from 3:20 p.m. to 3:36 p.m.) 3 HEARING OFFICER ORTH: Ms. Katz, will you join on 4 the screen? There you are. So are we going from here to 5 the stakeholder outreach? 6 MS. KATZ: Yes, that's correct. So the 7 Department calls Elizabeth Bisbey-Kuehn. 8 HEARING OFFICER ORTH: Okay. Ideally, she can 9 join us on screen. 10 MS. KATZ: Is she a panelist? Has she been 11 admitted as a panelist? 12 HEARING OFFICER ORTH: She should -- she should 13 be, although -- you know what? She might have -- yeah, 14 okay, sorry, let me re-add her. I added her earlier, but 15 I need to add her again. Hold on. I don't see her among 16 the attendees either. 17 MS. KATZ: Hang on one second. She says she's on 18 there. 19 HEARING OFFICER ORTH: If she's on under a 20 different name, I just need the name. Oh, Liz Kuehn, 21 sorry. 22 MS. KATZ: Sorry. I was just asking her if she 23 was Liz or Elizabeth on there. 24 HEARING OFFICER ORTH: Sorry. Yeah, I was 25 looking under "E". There she is. Ms. Kuehn, would you

229 1 please spell your last name? Elizabeth is the standard 2 spelling. 3 MS. BISBEY-KUEHN: It is. Thank you, Madam 4 Hearing Officer. My last name is Kuehn, K-U-E-H-N. 5 HEARING OFFICER ORTH: All right. Would you 6 raise your right hand? Do you swear or affirm to tell the 7 truth? 8 MS. BISBEY-KUEHN: I do. 9 HEARING OFFICER ORTH: Thank you very much. Go 10 ahead, Ms. Katz. 11 MS. KATZ: Thank you. 12 ELIZABETH BISBEY-KUEHN, 13 (Relating to Topic Order 3) 14 having been first duly sworn or affirmed, was 15 examined and testified as follows: 16 DIRECT EXAMINATION OF ELIZABETH BISBEY-KUEHN 17 BY MS. KATZ: 18 Q. Oops. Sorry, I have the wrong questions up here. 19 One second. All right. Ms. Kuehn, can you tell the Board 20 where you're employed? 21 A. I'm employed with the New Mexico Environment 22 Department Air Quality Bureau. 23 Q. And how long have you worked for the Department? 24 A. Approximately 16 years. 25 Q. And what is your current job title?	231 1 stakeholder outreach for proposed Part 50 is marked at 2 NMED Exhibit 6, correct? 3 A. Yes, correct. 4 Q. Do you have any changes to that written 5 testimony? 6 A. No. 7 Q. And do you adopt your written testimony here 8 today? 9 A. Yes. 10 Q. And can you please summarize for the Board the 11 Department's public outreach and stakeholder engagement on 12 the draft rule? 13 A. I will. And I will share demonstrative exhibits 14 to walk us through those. And it looks like I need a 15 permission to share. Oh, it's the share. Okay. So I 16 don't need special permission, the share button is running 17 for me. 18 As Mrs. Katz mentioned earlier today, our 19 Governor Michelle Lujan Grisham issued Executive Order 20 2019-003 directing us and our sister agency -- the New 21 Mexico Environment Department and our sister agency, the 22 Energy, Minerals and Natural Resources Department to 23 develop a statewide enforceable -- enforceable regulatory 24 framework to secure reductions in the oil and gas sector 25 methane emissions and to prevent waste.
230 1 A. I am the Bureau Chief of the Air Quality Bureau. 2 Q. And can you describe your job duties? 3 A. I manage the section chiefs, who oversee the 4 Bureau's four sections: planning, permitting, compliance 5 and enforcement and operations. I direct the overall 6 management of the Bureau, including technical and 7 administrative staff, air quality-related planning and 8 policy, operational permitting and compliance and 9 enforcement services, financial oversight of the Bureaus' 10 federal grant and state matching funds and other support 11 services. 12 Q. And can you please describe your educational and 13 professional qualifications? 14 A. I have a Bachelor of Science in Environmental 15 Studies from the University of Iowa. I've worked at the 16 Air Quality Bureau for approximately 16 years and my 17 positions have included permit specialist, minor resource 18 manager, major source permit writer, and Bureau Chief. 19 Q. And a copy of your resume has been provided as 20 NMED Exhibit 5? 21 A. Yes. 22 Q. And have you submitted prefiled, direct testimony 23 on this topic in this proceeding? 24 A. Yes. 25 Q. And your full, written, direct testimony on the	232 1 At the time that that Executive Order was issued, 2 then the Board did not have the authority under the Air 3 Quality Control Act to pass regulations for methane that 4 were more stringent than federal regulations, but it did 5 have authority to pass more stringent regulations for VOC 6 and NOx for the purposes of reducing ambient ozone 7 concentrations. And because ozone is emitted -- or 8 because the ozone precursor VOC is emitted, along with 9 methane and oil and gas operations, requirements that 10 reduce VOC emissions necessarily reduce emissions of 11 methane. 12 New Mexico Environment Department held numerous 13 public engagement sessions after issuance of the Executive 14 Order, with their sister agency around the state to 15 provide initial public outreach on the plan that was being 16 developed. And on the slide here you'll note the bottom 17 half of this presentation outlines the dates and the 18 locations of those five initial public stakeholder 19 meetings that were held. 20 Following the initial public outreach meetings in 21 the summer of 2019, community members expressed a strong 22 interest in holding a community impact meeting to discuss 23 the health, cultural and economic impacts of the oil and 24 gas industry, and NMED hosted, and with EMNRD, a community 25 impact meeting as well on March 19th, 2020.

233 1 In addition, both agencies convened the methane 2 advisory panel, which brought several technical 3 stakeholders together to identify processes and equipment 4 used in oil and gas sector, to develop emissions and 5 waste-free standards for those processes and to propose 6 standards, including monitoring, recordkeeping and 7 reporting for those -- those standards. 8 The MAP process yielded a technical background 9 document identifying specific oil and gas equipment and 10 processes for consideration in moving forward with that 11 enforceable regulatory strategy. The MAP was comprised of 12 27 individual members representing environmental 13 organizations, the Nation tribes and pueblos, oil and gas 14 industry, including small and large independent operators 15 as well as nonindependent companies. 16 Industry representatives included companies from 17 both the Permian and San Juan Basins. And additional 18 technical expertise was provided by professionals from Los 19 Alamos National Labs, Colorado State University and New 20 Mexico Institute of Mining and Technology. 21 The MAP process, as I indicated before, 22 culminated with a draft technical report which provided an 23 informational foundation on the technical side of the ways 24 in which the oil and gas sector emits methane, and 25 therefore, VOC, under our statute, and what methods could	235 1 Department made substantial revisions to the proposed rule 2 that are reflected in the version included as part of the 3 Department's petition for regulatory change filed with the 4 Board on May 6th, 2021. 5 Q. And Ms. Kuehn, can you just briefly talk about 6 the engagement with the parties following the filing of 7 the petition and the -- just overview of just changes that 8 were made based on that process? 9 A. Sure. We have engaged in multiple party 10 communications, extensive communications since the draft 11 was issued, made significant edits and revisions to the -- 12 to the proposed rule in response to those comments. We 13 have met with each stakeholder, and as Ms. Katz mentioned 14 before, we have accommodated each meeting request that we 15 have received and we have made edits to the rule up until 16 the filing of the September 16th version. 17 Q. Thank you, Ms. Kuehn. I have no further 18 questions for Ms. Kuehn on this topic. 19 HEARING OFFICER ORTH: All right. Thank you very 20 much, Ms. Katz. We'll turn now to questioning. Ms. Fox, 21 do you have questions of Ms. Kuehn? 22 MS. FOX: None, Madam Hearing Officer. Thank 23 you. 24 HEARING OFFICER ORTH: Thank you. 25 Ms. Paranhos?
234 1 be used to curb those emissions and prevent waste. 2 The draft MAP technical report was issued on 3 December 19, 2019 for public comment, and approximately 42 4 comments were received on that report. In addition to 5 this effort, the New Mexico Environment Department also 6 undertook an extensive public outreach campaign related to 7 its ozone attainment initiative, which is the state 8 program developed by the Department in which our expert, 9 Mike Baca, will speak to you later on. The New Mexico 10 Environment Department held numerous public meetings 11 related to the ozone attainment initiative and those dates 12 and locations of those public meetings are listed on this 13 slide. 14 Over the last two years during the development of 15 the rule, we have promised to continue to seek comment and 16 feedback from the public and the regulated entities and 17 other stakeholders. As part of that effort, the 18 Department conducted extensive prepetition outreach on the 19 proposed rule, including a prepetitioned full draft rule 20 that was issued for stakeholder and public input on July 21 20th, 2020, for essentially a 45-day public comment 22 period. 23 We received extensive public comments on that 24 prepetitioned draft, which are posted on the website. And 25 based on the comments received on that draft, the	236 1 MS. PARANHOS: No questions, Madam Hearing 2 Officer. 3 HEARING OFFICER ORTH: All right. Professor 4 Pacyniak? 5 PROFESSOR PACYNIK: No questions, Madam Hearing 6 Officer. 7 HEARING OFFICER ORTH: All right. Ms. Devore? 8 MS. DEVORE: No questions. Thank you. 9 HEARING OFFICER ORTH: I'm sorry? 10 MS. DEVORE: No questions. Thank you. 11 HEARING OFFICER ORTH: Oh, okay. Thank you. 12 Mr. Nykiel? 13 MR. NYKIEL: No questions. Thank you. 14 HEARING OFFICER ORTH: Thank you. 15 Mr. de Saillan? 16 MR. DE SAILLAN: No questions. Thank you. 17 HEARING OFFICER ORTH: Thank you. 18 Mr. Hiser? 19 MR. HISER: No questions. Thank you. 20 HEARING OFFICER ORTH: Thank you. 21 Mr. Rose? 22 MR. ROSE: No questions. 23 HEARING OFFICER ORTH: All right. 24 Mr. Janoe? 25 MR. JANOE: No questions. Thank you

237 1 HEARING OFFICER ORTH: Mr. Butzier? 2 MR. BUTZIER: No questions. 3 HEARING OFFICER ORTH: Ms. Gutierrez? 4 MS. GUTIERREZ: No questions. Thank you. 5 HEARING OFFICER ORTH: Mr. Neumann. 6 MR. NEUMANN: No questions. Thank you. 7 HEARING OFFICER ORTH: All right. 8 Ms. Witherspoon? 9 MS. WITHERSPOON: No questions. Thank you. 10 HEARING OFFICER ORTH: All right. Thank you. 11 I'm going to turn to the Board members now to see if they 12 have questions of Ms. Kuehn. While I'm doing that, in the 13 event you are not a panelist and you have a question for 14 Ms. Kuehn, please reach out through the Chat. 15 EXAMINATION BY THE BOARD OF ELIZABETH BISBEY-KUEHN 16 HEARING OFFICER ORTH: Madam Chair, do you have a 17 question of Ms. Kuehn? 18 CHAIRPERSON SUINA: Madam Hearing Officer, I 19 don't have any questions. Thank you. 20 HEARING OFFICER ORTH: Thank you. 21 Vice-Chair Trujillo-Davis? 22 VICE-CHAIR TRUJILLO-DAVIS: I don't have any 23 questions. Thank you, Madam Hearing Officer. 24 HEARING OFFICER ORTH: Thank you. 25 Member Cates?	239 1 HEARING OFFICER ORTH: Ms. Katz, where are we 2 going from here? 3 MS. KATZ: Madam Hearing Officer, I mean, we 4 could -- so we could go to -- to number -- Topic Number 7 5 on the spreadsheet that I did send to Ms. Jones, and I 6 believe she sent it to the Board members. And so that 7 will be the Ozone Attainment Initiative and the Ozone Path 8 Forward Plan, and that will be Department witness Michael 9 Baca, and Mr. Knight is going to put on Mr. Baca. 10 HEARING OFFICER ORTH: Terrific. Let me look 11 among the attendees for Mr. Baca. And oh, there you are 12 right there. And Mr. Knight, if you would join us on 13 screen. Oh, there you are. Terrific. We have Mr. Baca 14 and Mr. Knight. 15 Mr. Baca, and it's standard spelling, Theresa. 16 If you would, please, raise your right hand. Do you swear 17 or affirm that you will tell the truth? 18 MR. BACA: I do. 19 HEARING OFFICER ORTH: Thank you very much. 20 Mr. Knight, whenever you're ready. 21 MICHAEL BACA, 22 (Relating to Topic Order 7) 23 having been first duly sworn, was examined and 24 testified as follows: 25 DIRECT EXAMINATION OF MICHAEL BACA
238 1 BOARD MEMBER CATES: No questions. Thanks. 2 HEARING OFFICER ORTH: All right. Member Bitzer? 3 BOARD MEMBER BITZER: One question. And thank 4 you by the way, for what has to have been an interesting 5 year of extra -- extra duty here, getting to this point. 6 Has there been any complaint from anybody, any 7 quarter -- any stakeholders, anybody in the community, 8 that they didn't get adequate notice or proper procedural 9 due process to this point? 10 MS. BISBEY-KUEHN: Member Bitzer, not that I am 11 aware of. 12 HEARING OFFICER ORTH: All right. 13 Member Garcia? Member Garcia, were you speaking? 14 MEMBER GARCIA: (Shaking head.) 15 HEARING OFFICER ORTH: No questions. All right. 16 Member Honker? 17 MEMBER HONKER: I have no questions. Thanks. 18 HEARING OFFICER ORTH: All right. Thank you. 19 Thank you so much, Ms. Kuehn. Is there any reason not to 20 excuse Ms. Kuehn? 21 MS. KATZ: (Shaking head.) 22 HEARING OFFICER ORTH: No? I see no questions in 23 the Chat, so thank you very much. Ms. Kuehn, you're 24 excused. 25 MS. BISBEY-KUEHN: Thank you.	240 1 BY MR. KNIGHT: 2 Q. Thank you, Madam Hearing Officer and Madam Chair, 3 members of the Board, good afternoon. 4 Mr. Baca, could you tell us where you are 5 employed? 6 A. Yes. Madam -- Madam Chair, members of the Board 7 and Madam Hearing Officer, I'm employed with the New 8 Mexico Environment Department Air Quality Bureau. 9 Q. And how long have you worked for NMED? 10 A. Approximately 17 years. 11 Q. And what is your current job title? 12 A. Control Strategies Manager. 13 Q. What are your job duties? 14 A. I manage the Bureau's Control Strategies Unit, 15 overseeing a staff of six that are responsible for the 16 development and -- of air quality plans and regulations, 17 including the State Implementation Plan or SIP for the 18 State of New Mexico. This unit also participates in 19 regional air quality improvement groups and oversees 20 mitigation projects, air quality grants and air quality 21 studies, especially as they pertain to achieving and 22 attaining the National Ambient Air Quality Standards. 23 Q. Thank you. Could you please describe your 24 educational and professional qualifications? 25 A. Sure. I hold a Bachelor of Arts in Chemistry

241 1 from Carleton College and I have worked for the Air 2 Quality Bureau for over 13 years. I -- my positions have 3 included staff manager and environmental analyst advanced 4 in the control strategies unit of the planning section. 5 Q. And a copy of your resume has been provided as 6 NMED Exhibit 2? 7 A. Yes. 8 Q. And have you submitted written, direct testimony 9 in this proceeding? 10 A. Yes. 11 Q. And is your full, written, direct testimony -- 12 does that appear as NMED Exhibit 1, and your full, 13 written, rebuttal testimony appears as NMED Rebuttal 14 Exhibit 22? 15 A. Yes. 16 Q. Do you have any changes to your written 17 testimony? 18 A. No. 19 Q. And do you adopt that written testimony here 20 today? 21 A. Yes, I do. 22 Q. Okay. I'm going to walk you through your direct 23 testimony and rebuttal testimony, and have you summarize 24 that testimony on the various topics that you covered. 25 All right?	243 1 enough better. 2 COURT REPORTER: If I turn him up on my end, 3 Mr. Knight is screaming, so I need Mr. Baca to speak much 4 louder, please. 5 HEARING OFFICER ORTH: Thank you, Ms. DuBois. 6 Mr. Baca, can you raise the volume any more? 7 MR. BACA: Yes. How does -- does that sound any 8 better? 9 HEARING OFFICER ORTH: Oh, that's fantastic. 10 Yes. 11 MR. BACA: Okay. Let me -- let me take these ear 12 buds out and speak to you this way, through my microphone 13 computer. Sorry about that. 14 HEARING OFFICER ORTH: Thank you. 15 Q. (BY MR. KNIGHT) Mr. Baca, you, I think -- well, 16 maybe we should ask the court reporter how far back should 17 we -- oh, she's good. Okay. 18 Okay. So you had just mentioned that -- what the 19 six criteria pollutants were. Could you talk about the 20 current ozone National Ambient Air Quality Standard? 21 A. Sure. So the current NAAQS is set at 70 parts 22 per billion, and the standard was set in 2015, when they 23 revised the previous standard, the 2008 standard, from 75 24 parts per billions down to 70 parts per billion. 25 Q. Thank you. These are health-based standards,
242 1 MS. KATZ: Mr. Knight, sorry. Mr. Baca is very 2 quiet for some of us. I don't know if that's an issue for 3 others. So, Mike, if you could maybe get moved closer and 4 speak a little louder. 5 MR. KNIGHT: Thank you. 6 Q. (BY MR. KNIGHT) All right. Can you summarize 7 the Clean Air Act regulatory framework for ozone? 8 A. Sure. The Clean Air Act requires EPA to set 9 National Ambient Air Quality Standards or NAAQS, for air 10 pollutants that are determined by EPA to be harmful to the 11 public health and environment. EPA has set NAAQS for six 12 principal pollutants called criteria pollutants. The six 13 criteria pollutants are ozone, carbon monoxide, nitrogen 14 dioxide, sulfur dioxide, lead and particulate matter 10 15 microns or smaller and 2.5 microns and smaller or less, so 16 that's PM10 and PM 2.5. The current -- 17 HEARING OFFICER ORTH: Mr. Baca, sorry. 18 A. For the 2015 NAAQS -- (inaudible) 19 HEARING OFFICER ORTH: Mr. Baca. Mr. Baca, I'm 20 sorry to interrupt you. You are still too quiet. Can you 21 sit closer to the microphone maybe? 22 MR. BACA: I'm using ear buds, so let me see if I 23 can adjust some settings on my microphone. 24 Okay. Is that any better? 25 HEARING OFFICER: It's a tiny bit better, but not	244 1 correct? 2 A. That is correct. As I discussed in my prefiled 3 testimony, the primary NAAQS are health -- health-based 4 standards and are set at levels meant to prevent the 5 public -- the public that are most at risk from being 6 harmed from ozone in the ambient air, and that including 7 asthmatics, children, older adults and people who are 8 active outdoors, such as construction workers and others 9 that work outdoors. So children are at the greatest risk 10 from ozone exposure because their lungs are still 11 developing and they are more likely to be active outdoors 12 when ozone levels are high, so which increases their ozone 13 exposure. 14 Health problems caused by ozone include coughing, 15 sore throat, difficulty breathing, inflammation and damage 16 to airways, increased frequency of asthma attacks and 17 aggravation of lung diseases, such as asthma, emphysema 18 and chronic bronchitis. 19 The EPA also set secondary NAAQS to protect 20 public welfare, including protection against decreased 21 visibility and damage to animals, crops, vegetation and 22 buildings. The secondary standard is identical to the 23 primary standard, in averaging time, level and form of the 24 2015 ozone NAAQS. The Clean Air Act under Section 108 25 requires EPA to re-evaluate the NAAQS on a periodic basis,

245 1 which may result in the standards being revised, based on 2 help and environmental criteria set by EPA. 3 Q. So what process is triggered when the national 4 Ambient Air Quality Standard for a particular pollutant is 5 revised? 6 A. The established or revision of a NAAQS triggers a 7 review of all areas throughout the country to determine if 8 pollutant concentrations are below or above the new 9 standards. The culmination of the process results in EPA 10 promulgating designations for all areas as an attainment 11 of the standard or nonattainment of the standard for each 12 pollutant. 13 So this process requires EPA to collaborate with 14 states and tribes and take into consideration air quality 15 data, emissions and emissions-related data, meteorology, 16 geography and topography and areas -- and jurisdictional 17 boundaries. If the air quality in a geographic region 18 meets or is below the standard, it is designated as an 19 attainment area. If the region is above the standard, it 20 is designated as a nonattainment area. 21 And for areas that do not have monitoring or when 22 modeling is not an appropriate tool for designation, EPA 23 designates areas as unclassifiable or 24 attainment/unclassifiable. EPA is required to make these 25 designations within two years of promulgating a new or	247 1 Standard? 2 A. Under the Clean Air Act, EPA is responsible for 3 designating and redesignating areas -- excuse me -- within 4 a state, with respect to the criteria of air pollutants. 5 EPA may at any time notify the Governor of any state that 6 available information indicates that the designation of an 7 area or portion of an area within a state should be 8 revised. Likewise, the Governor of any state may, on 9 their own motion, request a redesignation of any area 10 within the state. 11 A decision to redesignate is based on air quality 12 data, findings and control considerations, or any other 13 air quality-related considerations that EPA deems 14 appropriate. 15 Q. In making that decision, can EPA consider 16 measures being implemented by a state to address monitored 17 exceedances? 18 A. Yes. Under the EPA's order and own guidance, 19 when an area that is designated attainment has monitors 20 showing violations of an existing NAAQS, EPA can consider 21 measures being implemented by the state to address those 22 monitored exceedances when determining whether or not the 23 area should be designated nonattainment. 24 And emissions reductions that are achieved 25 through the ozone advanced program could be credited in
246 1 revised NAAQS with a one-year extension when insufficient 2 information exists to promulgate such a designation. 3 So as discussed in the testimony of Mr. Ahr, the 4 determination of whether concentrations of a criteria 5 pollutant in an area are meeting or exceeding the NAAQS is 6 based on the design value for that pollutant. For ozone, 7 the design value is determined by calculating the 8 three-year average of the annual or highest daily maximum 9 8-hour ozone concentration. 10 Q. All right. So what is the current designation of 11 the areas where the source is at issue in this proposed 12 rule, are located? 13 A. Most of the areas are designated as attainment 14 areas. There is one ozone nonattainment area in the state 15 and that is in Doña Ana County near Sunland Park, New 16 Mexico. That's on the outskirts of El Paso, Texas. 17 Q. Okay. Thank you. Can the Board or the 18 Department designate ozone nonattainment areas? 19 A. No. Neither the Clean Air Act, nor the Air 20 Quality Control Act give the Board or the Department the 21 authority to designate an area as nonattainment. It is 22 fully within the EPA's authority to designate attainment 23 and nonattainment areas. 24 Q. Okay. Who decides to designate or redesignate an 25 area under an existing National Ambient Air Quality	248 1 any future nonattainment SIPs developed under Part D of 2 the Clean Air Act. 3 Q. Does the Air Quality Control Act define 4 nonattainment area? 5 A. Yes, it does. That definition is at Section 6 74-2-2 (N) Air Quality Control Act, and it is the same as 7 the current definition in the Clean Air Act. 8 Q. Okay. And how does the Air Quality Control Act 9 direct the Board to act with respect to an area with 10 elevated ozone? 11 A. So Section 74-2-5 of the Air Quality Control Act 12 or AQCA mandates that the Board take action to control VOC 13 and NOx emissions when the Board determines -- and this is 14 quotes: "Determines that emissions from sources within 15 its jurisdiction cause or contribute to ozone 16 concentrations in excess of 95 percent of the primary 17 ozone NAAQS." 18 So under the statutory provision, the Board is 19 required to adopt a plan, including rules to control the 20 NOx and VOCs to provide for the attainment and maintenance 21 of the standard. 22 Q. And what is the Department doing to assist the 23 Board in carrying out this duty under the Air Quality 24 Control Act? 25 A. So NMED has undertaken the Ozone Advance

249 1 Initiative and the Ozone Attainment Initiative, or the 2 OAI, to propose the plan as well as regulations required 3 by the statute. 4 Q. And can you discuss what the Department's Ozone 5 Attainment Initiative entails? 6 A. Sure. There are currently nine counties under 7 the Board's jurisdiction that have or are adjacent to 8 monitoring sites registering ozone concentrations in 9 excess of 95 percent of the standard. 10 To address this issue, and as required by the -- 11 by law, the Department has undertaken its Ozone Attainment 12 Initiative to develop a plan and a series of rules to 13 bring before the Board, as well as other voluntary 14 measures to mitigate the emissions of NOx and VOCs from 15 all contributing sources. 16 The OAI is a plan the state is following in order 17 to meet the statutory requirements of the Air Quality 18 Control Act. So under the umbrella of the OAI, the 19 Department is also participating in the EPA's Ozone 20 Advance Program to promote proactive and early actions in 21 designated attainment areas to reduce ozone for the 22 continued maintenance of the standard. 23 The Department developed a draft Ozone Advance 24 Path Forward as part of the program, which is included as 25 NMED Exhibit 4, to demo -- to demonstrate to EPA how the	251 1 control emissions from other mobile sources, which the 2 Department will bring before the Board later this year. 3 These regulations will set standards for low 4 emissions vehicles or LEV vehicles and zero-emission 5 vehicles, or ZEV that will provide further mitigation of 6 ozone precursors. 7 Q. Okay. Thank you for that. Is it possible that 8 even with all of the regulatory efforts of the OAI, some 9 areas may not be able to reach or stay in attainment of 10 the ozone NAAQS? 11 A. Yes, that's -- that's definitely a possibility, 12 especially with EPA currently reviewing the 2020 decision 13 to retain the ozone NAAQS as is. The Biden 14 Administration, if they lower the standards or these areas 15 of New Mexico do not attain the standard in a timely 16 fashion, the regulatory path forward could be an oral 17 nonattainment designation by the EPA. 18 So the intent behind the Board's mandatory duties 19 are outlined in the Air Quality Control Act, is to take 20 these -- take actions to avoid a nonattainment 21 designation, and the planning, regulatory and financial 22 burdens of the obtaining of a nonattainment designation. 23 Generally, the Clean Air Act outlines a 24 nonattainment process that will last a minimum of 25 25 years, so that gives five years for designations and an
250 1 state plans to address high ozone concentrations before 2 EPA promulgates a nonattainment designation for any of the 3 counties. Since the Air Quality Control Act does not 4 prescribe what the plan should contain, the Department 5 followed the EPA guidelines to develop the Ozone Advance 6 Path Forward. 7 This plan is sufficient to satisfy the 8 requirements of the Air Quality Control Act and the 9 Department is proposing that the Board adopt the Ozone 10 Advance Path Forward to comply with the Board's statutory 11 duties. A fundamental aspect of the OAI is determining 12 what sources are contributing to ozone concentrations. 13 To this end, the Department contracted with 14 Western States Air Resources Council and Ramboll to 15 conduct photochemical grid modeling for ozone to determine 16 which sectors within the Board's regulatory jurisdiction 17 are contributing to ozone concentrations and to support 18 the rulemaking efforts. 19 The results of this modeling are presented in 20 Ralph Morris's testimony at NMED Exhibit 106. The Air 21 Quality Control Act also requires the Board to adopt 22 regulations as part of its plan to address these rising 23 ozone concentrations. So the proposed Part 50 is the 24 first set of rules that the Department is bringing before 25 the Board. These will be followed by regulations to	252 1 attainment standard, and two ten-year meetings periods 2 before an area can be redesignated as attainment. 3 If an area fails to contain the standard by its 4 attainment date, it is reclassified into a more stringent 5 classification, to include additional planning 6 requirements that progressively become more stringent with 7 every class -- reclassification. So this prolongs an area 8 of attainment date, to allow for the implementations of 9 additional control strategies. 10 So the nonattainment process triggers planning 11 and permitting requirements, including emission 12 inventories, transportation conformity, reasonable further 13 progress, permitting offsets and lowest achievable 14 emission rate for equipment. All of these are time 15 consuming and costly to both the industry and the 16 Department and can cause competitive disadvantages to New 17 Mexico businesses and communities. 18 Q. So is it likely that even if the proposed rule is 19 adopted, some areas of the state would still go into 20 nonattainment status? 21 A. Well, the Department acknowledges that the 22 modeling indicates that the reduction in ozone 23 concentrations achievable by the proposed rule would not 24 be sufficient to bring some of the areas into compliance 25 with the standard.

253 1 However, incremental reductions can keep an area 2 from receiving a higher classification in the future and 3 avoid the more rigorous and costly requirements for such a 4 classification. 5 MR. KNIGHT: Okay. Thank you, Mr. Baca. 6 Madam Hearing Officer, those are all the 7 questions I have for this witness at this time. Mr. Baca 8 will come back for surrebuttal testimony following the 9 other parties on this topic. 10 HEARING OFFICER ORTH: Okay. Thank you very 11 much, Mr. Knight. 12 MR. KNIGHT: And Madam Hearing Officer, I would 13 also like to note that we have an amended Exhibit 4, which 14 we have sent out earlier today to all of the other 15 parties. And I don't know, perhaps it might be premature 16 to see if anyone has an objection to it or not, but I just 17 wanted to note that we are going to ask that -- that that 18 amended Exhibit 4 be made part of the record subject to 19 any objections and your ruling on those objections. 20 HEARING OFFICER ORTH: Okay. I believe it might 21 have just been sent and so I'm not sure the other parties 22 have had a chance to -- to review it. Maybe we'll take 23 that up a little later. 24 MR. KNIGHT: I think that's fine 25 HEARING OFFICER ORTH: Okay.	255 1 determine whether there's a problem with any of that. 2 And since Mr. Baca is going to testify on 3 surrebuttal after everyone else, if we're going to address 4 the amended exhibit, we'll need to know what the changes 5 are. 6 MS. KATZ: Sure. I can work on making a redline 7 and sending that around. 8 MR. ROSE: That would be helpful. Thank you. 9 HEARING OFFICER ORTH: Thank you, Mr. Rose and 10 Ms. Katz. 11 So time is now to ask questions of Mr. Baca. 12 I'll start with the parties. Ms. Fox, do you have 13 questions of Mr. Baca? 14 MS. FOX: None, Madam Hearing Officer. Thank 15 you. 16 HEARING OFFICER ORTH: Thank you. 17 Ms. Paranhos? You may be muted again. 18 Professor Pacyniak? 19 PROFESSOR PACYNIK: No questions at this time, 20 Madam Hearing Officer 21 HEARING OFFICER ORTH: Thank you. 22 Ms. Devore? She may have stepped away. 23 Mr. Nykiel? 24 MR. NYKIEL: No questions -- no questions at this 25 time. Thank you.
254 1 MR. ROSE: Madam Hearing Officer, if you would, 2 the Amended Exhibit 4 doesn't appear as though it 3 identifies the changes from the previously filed Exhibit 4 4. I was wondering if the Department either could explain 5 it or have something that identifies the changes that they 6 made. I'm not suggesting it's going to be objectionable, 7 and probably won't, but I can't tell based on the 8 submittal, exactly what was changed. 9 HEARING OFFICER ORTH: All right. Thank you, 10 Mr. Rose. 11 MS. KATZ: Yeah, and Mr. Baca is going to be 12 testifying about those changes in his surrebuttal. And we 13 could identify them, but maybe Mike, can you maybe point 14 to where they are in the document? 15 MR. BACA: The changes were made in response to 16 rebuttal testimony provided by NMOGA and IPNME -- IPANM. 17 And so the main changes were to the description of the 18 photochemical modeling, that one section. There -- there 19 was changes made to that, and that was it. 20 MS. KATZ: Do you have a page number or I don't 21 have -- Lou, do you need a page number? 22 MR. ROSE: I'll see if I can find it, but it 23 isn't -- even as those changes would be helpful, and I'm 24 not suggesting you're required to do it, but if we had a 25 redline version, it would certainly be a lot easier to	256 1 HEARING OFFICER ORTH: All right. And I have a 2 text from Ms. Paranhos saying she has no questions. 3 Mr. de Saillan? 4 MR. DE SAILLAN: No questions. Thank you. 5 HEARING OFFICER ORTH: Thank you. 6 Mr. Hiser. 7 MR. HISER: No questions. Thank you. 8 HEARING OFFICER ORTH: All right. Mr. Rose? 9 MR. ROSE: Yes, Madam Hearing Officer, I have a 10 few questions of this witness 11 CROSS-EXAMINATION OF MICHAEL BACA 12 BY MR. ROSE: 13 Q. Mr. Baca, are you familiar with the state's 14 current implementation plan provisions as they relate to 15 ozone? 16 A. Yes, I am. 17 Q. And did you review those in developing the path 18 forward and the ozone initiative? 19 A. Not as part of this, no. 20 Q. How does this plan differ from what's currently 21 in the implementation plan? 22 A. Okay. This plan is in response to ozone events, 23 so this is not a plan that's developed as required by the 24 Clean Air Act. The provision that you're talking about, 25 it sounds like -- it sounds like a SIP requirement.

257 1 Q. Correct, under Section 110. 2 And are you familiar with what would be required 3 in terms of a plan where an area's designated 4 nonattainment by EPA? 5 A. Yes, I am. 6 Q. And would -- would the path forward or the ozone 7 initiative satisfy the requirements of EPA if the areas 8 were designated nonattainment? 9 A. As stated earlier, the Ozone Advance Path Forward 10 is not to address any requirement of the Clean Air Act. 11 Q. In terms -- in terms of looking at the path 12 forward, it appears as though the Department made a 13 decision whether or not to regulate oil and gas first, and 14 then transportation-related pollutants second. 15 Is there any explanation in this document about 16 how those priorities were set and why the Department 17 decided to regulate oil and gas first? 18 A. Can you -- can you maybe repeat that question so 19 I can try to gather that all together. 20 Q. Sure. No, that's fine. And if you need 21 clarification, just ask. 22 You testified in terms of the Department's 23 decision to -- that it was regulating oil and gas, this 24 proposal was the first, and that the Department intended 25 to propose transportation-related requirements for mobile	259 1 reductions that would be necessitated by the Regional Haze 2 Program, whether or not any of those anticipated 3 reductions were factored into any of the decision making 4 here. 5 A. Well, unlike this -- this matter, regional haze 6 is required under the Clean Air Act. So any emissions 7 reductions we do under regional haze have to be federally 8 enforceable, which we are not doing here today. We are 9 not adopting this as a SIP rule today. 10 Q. And so -- 11 A. Any -- any emissions that we do achieve through 12 regional haze would be through that Clean Air Act program. 13 Q. And were those factored into any of the analysis 14 here, in terms of like the regulatory program that you're 15 proposing looks like? 16 A. I'm not sure I understand what you're -- what 17 you're asking as what it pertains to. 18 Q. Let me be -- (unintelligible) 19 A. The program -- (unintelligible) its focus, 20 we're -- we're only looking at certain sources for 21 control, so it's a whole different scope. 22 Q. And -- and are you aware of -- I take it the 23 Department has not yet proposed to the Board its regional 24 haze proposal, and that would have to go before the Board 25 before it was submitted to EPA; is that correct?
258 1 sources or cars and trucks later. 2 I was wondering whether or not the document which 3 is Exhibit 4, explains how the Department made the 4 decision to regulate oil and gas first, 5 transportation-related pollutants second, and then any 6 other controls after that? 7 A. Well, I guess we can discuss a little bit about 8 how the Department arrived at regulating oil and gas 9 first. Is that -- is that the main question? 10 Q. I was wondering if -- excuse me for 11 interrupting -- whether Exhibit 4 explains that or if it's 12 in some other exhibit that the Department -- or testimony 13 the Department submitted? 14 A. That would probably be under another exhibit. 15 The Ozone Advance Path Forward is not intended to justify 16 the rulemaking or justify any of the source sectors 17 included in the rulemaking. This -- the Ozone Advance 18 Path Forward is intended to satisfy the requirements of 19 the EPA program. 20 Q. Thank you. 21 A. It's mandatory. It's in an explanatory document. 22 Q. Okay. Thank you, Mr. Baca. 23 I think you also, in the document, discuss NOx 24 emission reductions, and I was curious as to whether or 25 not when you did that, whether you included potential	260 1 A. That is correct. 2 Q. And as you currently understand it, is the 3 Department intending to regulate certain oil and gas 4 sources as part of the Regional Haze Program as well? 5 A. The Department has not made a determination on 6 that as of -- as of this time. 7 Q. I take it, though, that in terms of the 8 facilities or the sources for which the Department 9 required a four-factor analysis, those did include certain 10 oil and gas sources, particularly in the Southeast, 11 correct? 12 A. That is correct. So we screened about 23 sources 13 under NMED's jurisdiction, and I believe 20 of those 14 sources were oil and gas sources. So those represented 15 the type of pollution sources that we screened, which are 16 the largest sources in the state. 17 MR. ROSE: Thank you, Mr. Baca. I have no 18 further questions. 19 HEARING OFFICER ORTH: Thank you, Mr. Rose. 20 Mr. Janoe? 21 MR. JANOE: No questions 22 HEARING OFFICER ORTH: Okay. Mr. Butzier? 23 MR. BUTZIER: No questions. 24 HEARING OFFICER ORTH: Thank you. Ms. Gutierrez? 25 MS. GUTIERREZ: No questions.

261 1 HEARING OFFICER ORTH: All right. Mr. Neumann? 2 MR. NEUMANN: No questions. Thank you. 3 HEARING OFFICER ORTH: All right. Thank you. 4 And Ms. Witherspoon? She may have stepped away. 5 Mr. Knight, do you -- oh, I'm sorry. I'm going to 6 turn to Board members now. And while I am doing that, if 7 you are not a panelist and you have a question of this 8 witness, please reach out in the Chat. 9 Madam Chair, do you have questions of Mr. Baca? 10 CHAIRPERSON SUINA: Madam Hearing Officer, I 11 don't have any questions at this time. Thank you. 12 HEARING OFFICER ORTH: Thank you. Vice-Chair 13 Trujillo-Davis? 14 VICE-CHAIR TRUJILLO-DAVIS: I don't have any 15 questions at this time. Thank you. 16 HEARING OFFICER ORTH: All right. Thank you. 17 Member Cates? 18 BOARD MEMBER CATES: No questions. 19 HEARING OFFICER ORTH: Thank you. Member Bitzer? 20 BOARD MEMBER BITZER: No questions. 21 HEARING OFFICER ORTH: Okay. Thank you. Member 22 Garcia? 23 BOARD MEMBER GARCIA: (Shaking head.) 24 HEARING OFFICER ORTH: I see you're shaking your 25 head no.	263 1 undergoing early stakeholder engagement. I believe they 2 have held at least one meeting and another one happening 3 shortly, if not already. I do believe the plan is to 4 propose their rule to the Board for a hearing in May. 5 MR. KNIGHT: Okay. Thank you very much. Okay. 6 That's all the redirect questions I have, Madam Hearing 7 Officer. 8 HEARING OFFICER ORTH: All right. Thank you very 9 much. I had one question in the Chat. 10 EXAMINATION FROM CHAT QUESTION TO MICHAEL BACA 11 HEARING OFFICER ORTH: Asking for a repetition of 12 Mr. Baca's job title, and so I'll just offer it. He 13 testified he was the Control Strategies Manager for the 14 Air Quality Bureau of the Environment Department. 15 Is there any reason not to excuse Mr. Baca? 16 MR. KNIGHT: No, he may be excused. 17 HEARING OFFICER ORTH: Thank you so much for your 18 testimony, Mr. Baca. 19 All right. Where are we going from here, 20 Mr. Knight? 21 MR. KNIGHT: Madam Hearing Officer, I will defer 22 to my co-counsel, Ms. Katz. 23 MS. KATZ: So Madam Hearing Officer, there were 24 rebuttal witnesses on this topic, so I believe Mr. -- 25 NMOGA has Mr. Smitherman listed and IPANM has Mr. Blewitt,
262 1 Member Honker? 2 BOARD MEMBER HONKER: I have no questions. 3 HEARING OFFICER ORTH: All right. Thank you. I 4 see no one reaching out through the Chat. 5 Mr. Knight, did any of Mr. Rose's questioning 6 raise in you a need to redirect Mr. Baca? 7 MR. KNIGHT: Yes, Madam Hearing Officer. I just 8 have a few redirect questions. 9 REDIRECT EXAMINATION OF MICHAEL BACA 10 BY MR. KNIGHT: 11 Q. Mr. Baca, did Dr. Raso testify this morning that 12 the oil and gas sector is the largest anthropogenic 13 sources of VOCs in New Mexico? 14 A. Yes, she did. Yes, she did, that's correct. 15 Q. Okay. And does the Department have the resources 16 to adopt -- to adopt multiple regulations under the OAI 17 simultaneously? 18 A. No, we do not. So we -- we had to prioritize 19 which sectors we are looking at based on which ones are 20 the most impactful. 21 Q. And is the Department currently working on the -- 22 developing the clean cars rules for the transportation 23 sector right now, and preparing to petition the Board 24 right within the next few months? 25 A. That is correct. The Department is currently	264 1 and so we would -- I believe those witnesses would go up 2 and then the Department would do its surrebuttal. 3 HEARING OFFICER ORTH: All right. 4 MR. HISER: Madam, this is Eric Hiser for NMOGA 5 and we are not going to call Mr. Smitherman for this 6 issue. 7 HEARING OFFICER ORTH: All right. And is 8 Mr. Smitherman with us? Shall I make him a panelist? Or 9 I might have already done that. 10 MR. HISER: Madam Hearing Officer, we are not 11 planning to ask Mr. Smitherman to say anything on this 12 rebuttal issue. 13 HEARING OFFICER ORTH: Oh, I'm sorry. Oh, okay. 14 I'm sorry. I didn't hear that correctly. All right. So 15 we will not be hearing from Mr. Smitherman. 16 Mr. Rose, will we be hearing from Mr. Blewitt? 17 MR. ROSE: Madam Hearing Officer, I believe he is 18 currently viewing this as an attendee, but not a panelist 19 so you may have to admit him. He's available to testify 20 this afternoon and he has some other topics which he'll 21 testify on later as well. 22 Madam Hearing Officer, you're muted so... 23 HEARING OFFICER ORTH: I muted myself as I made 24 Mr. Blewitt a panelist. We should be able to bring him up 25 on screen. Mr. Blewitt, can you hear me?

265 1 MR. BLEWITT: I can hear you. Can you hear me? 2 HEARING OFFICER ORTH: Oh, gosh, no. You sound 3 like you're talking through a blanket. 4 MR. BLEWITT: I'm as close to my computer as I 5 can -- I can get. 6 HEARING OFFICER ORTH: Is there a volume setting 7 you might be able to control? 8 MR. BLEWITT: I'm at 100 percent volume. 9 HEARING OFFICER ORTH: Okay. 10 Theresa, are you going to be able to turn this 11 up? 12 MS. BLEWITT: I'm not hearing you very well right 13 now. 14 COURT REPORTER: I can turn it up, but Mr. Rose 15 will need to speak a little lower. 16 MR. ROSE: Or softer. I'm not sure I can go 17 lower. 18 HEARING OFFICER ORTH: Okay. All right. 19 Mr. Rose, use your soft voice. 20 Okay. So Mr. Blewitt, if you would, please, 21 spell your last name. Doug is the standard spelling? 22 MR. BLEWITT: B-L-E-W-I-T-T. 23 HEARING OFFICER ORTH: Thank you. And if you 24 would raise your right hand, please. Do you swear or 25 affirm to tell the truth?	267 1 I have -- was a Colorado Air Commissioner. I 2 served as secretary for six years. I've been involved in 3 numerous research programs regarding air quality issues in 4 the West. I think that concludes. 5 Q. Mr. Blewitt, did you -- did you prepare a written 6 direct and rebuttal testimony for this proceeding? 7 A. Yes, I did. 8 Q. With respect to the direct testimony, do you have 9 any corrections or -- to that written testimony? 10 A. No corrections. 11 Q. If you were asked those same questions that are 12 in your written testimony, would your answers be the same 13 here in person as they were in your written submittal? 14 A. Yes. 15 MR. ROSE: Madam Hearing Officer, I'd offer 16 Mr. Blewitt's testimony -- I can't remember the Exhibit 17 No. here, but as in this proceeding. 18 HEARING OFFICER ORTH: Okay, but I'll need an 19 Exhibit No. Take a moment to find that. 20 MR. ROSE: I'll have to find that. I've got it 21 somewhere. 22 MR. BLEWITT: Can you share the screen so I can 23 present slides? 24 HEARING OFFICER ORTH: Yes, I can, just give me a 25 sec.
266 1 MR. BLEWITT: I'm not -- you're going to have to 2 speak up. 3 HEARING OFFICER ORTH: Do you swear or affirm to 4 tell the truth? 5 MR. BLEWITT: Yes. 6 HEARING OFFICER ORTH: All right. Thank you. 7 Mr. Rose, if you would, please. 8 DOUG BLEWITT, 9 (Relating to Topic Order 3) 10 having been first duly sworn or affirmed, was 11 examined and testified as follows: 12 DIRECT EXAMINATION OF DOUG BLEWITT 13 BY MR. ROSE: 14 Q. Yes. Mr. Blewitt, could you -- you've already 15 identified yourself. Could you explain your educational 16 and work background? 17 A. Yes. I have a Bachelor's Degree in Chemistry and 18 Physics. I've done graduate work at the University of 19 Wisconsin and the University of -- or University of 20 Illinois Institute of Technology. I have over 45 years of 21 air quality experience. I have been involved in 22 development of accidental release models for dense gases 23 that are specific to hydrogen fluoride. I've published 24 numerous papers on modeling and monitoring and analysis of 25 data.	268 1 MR. BLEWITT: Okay. 2 MR. ROSE: Madam Hearing Officer, I don't seem to 3 have the list here. I didn't expect to have Mr. Blewitt 4 testify this afternoon, so I'm not quite as prepared as I 5 might have been. We only have a handful of exhibits, 6 so... Rather than trying to delay this even further, I 7 was hoping someone would have that list handier than I do. 8 I have it, I just can't immediately find it. 9 MR. BUTZIER: This is Stuart Butzier and this is 10 Exhibit 12, I believe. 11 MR. ROSE: That's the direct testimony? 12 MR. BUTZIER: No, I'm sorry. 13 HEARING OFFICER ORTH: No, it's the rebuttal. 14 MR. ROSE: Right, we'll get to the rebuttal here 15 in a sec. 16 HEARING OFFICER ORTH: You have too many boxes, 17 Lou. 18 MR. ROSE: It's okay, I have more binders than I 19 care to look at here, but... 20 HEARING OFFICER ORTH: So we'll -- we'll -- let's 21 check on the right Exhibit No. so we can keep a clean 22 record. 23 MR. HISER: Madam Hearing Officer, his direct is 24 Exhibit 6. 25 HEARING OFFICER ORTH: Exhibit 6 and that was

269 1 Mr. Hiser. 2 MR. HISER: That is correct. 3 HEARING OFFICER ORTH: So thank you. 4 MR. ROSE: I'm glad Mr. Hiser's more together 5 than I am on this. 6 HEARING OFFICER ORTH: So thank you for that. 7 All right. So the direct testimony is Exhibit 6. Were 8 there any -- I don't believe there were any -- any 9 objections to IPANM Exhibit 6, so unless someone speaks up 10 right now, it's admitted. 11 (IPANM Exhibit 6 received into evidence at this 12 time.) 13 MR. ROSE: Madam Hearing Officer, I'd note that 14 Mr. Blewitt's direct and rebuttal relate to topics beyond 15 just this one. So I assume that when it's admitted here I 16 won't have to offer pieces later as to admission. 17 HEARING OFFICER ORTH: I agree with you. 18 MR. ROSE: Thank you, Madam Hearing Officer. 19 Q. (BY MR. ROSE) Mr. Blewitt, did you prepare 20 written rebuttal testimony in this proceeding? I think 21 he's adjusting his head gear here. 22 A. Can you hear me now? 23 Q. It's about the same. 24 A. Well, I can hear you much better. 25 Q. Okay. Did you -- did you prepare written	271 1 which we circulated yesterday, that he's going to use for 2 his summary. 3 MR. BLEWITT: Can you see my slides on your 4 screens? 5 HEARING OFFICER ORTH: No. 6 MR. BLEWITT: How do I share my screen? 7 MR. ROSE: There should be a button there that 8 allows you to share 9 HEARING OFFICER ORTH: There's probably a "share" 10 button. 11 MR. ROSE: He's got it. It's now starting 12 HEARING OFFICER ORTH: There you go. There you 13 go. It's happening. 14 MR. BLEWITT: Great. 15 Q. (BY MR. ROSE) You need to increase the size of 16 that if you can. There we go. That's better. 17 A. Okay. Sorry for my technical ineptness. Let me 18 start out by saying we're here to address ozone, and 19 that's -- that's really what this is all about. And the 20 Board has taken a very interesting position, wanting to 21 protect air quality. And I think it's in some respects, 22 it's a very good idea, that if concentrations get in 23 excess of 95 percent of the -- of the NAAQS for ozone, 24 that they need to develop a plan. 25 And the purpose of this regulatory action is to
270 1 rebuttal testimony in this proceeding? 2 A. Lou, are we ready to start this? 3 Q. Yes. Well, no, not the slides yet. I'm just 4 trying to -- talking about your rebuttal testimony. 5 Did you prepare written rebuttal testimony in 6 this proceeding? 7 A. Yes, I did. 8 Q. And do you have any corrections to your written 9 rebuttal testimony? 10 A. No, I do not. 11 Q. And if I were to ask you the questions here that 12 we asked in the written rebuttal, would your answers be 13 the same as they were in your written testimony? 14 A. Yes. 15 MR. ROSE: Madam Hearing Officer, I would offer 16 IPANM, I guess it's Exhibit 12 in this proceeding and ask 17 that it be admitted. 18 HEARING OFFICER ORTH: All right. I don't 19 remember any objections to IPANM Exhibit 12, so unless 20 someone speaks up right now, it is admitted. Thank you. 21 (IPANM Exhibit 12 received into evidence at this 22 time.) 23 Q. (BY MR. ROSE) Mr. Blewitt, could you briefly 24 summarize your direct and rebuttal testimony? And Madam 25 Hearing Officer, I believe he has a demonstrative exhibit	272 1 protect New Mexico from new violations of the current 2 NAAQS, by sort of establishing a safety factor. And it 3 basically establishes that NMED and the Board need to 4 establish a plan to reduce ozone concentrations. This is 5 not a regulatory action about reducing methane. And the 6 plan really must develop a control strategy. And control 7 strategies are difficult and they need to combine 8 monitoring and modeling to try to draw out as much 9 information as possible, to ensure that the NAAQS is -- is 10 maintained. 11 I think it's also important to use modeling to 12 identify culpable sources of what sources contribute to 13 monitors, and those potential contributions must address 14 significant impacts. And significant is a word here that 15 has some regulatory meaning, so we want to make sure that 16 the reductions we're -- we're achieving are meaningful. 17 And I think that's -- that's part of the whole process, to 18 identify how to achieve compliance. 19 I think from my perspective, I'm not sure that 20 the plan and the modeling that have been developed satisfy 21 these requirements. Let's -- we'll go to the next slide. 22 I think one of the things that's really important 23 in reviewing the modeling is a discussion of emission 24 inventories. Emission inventories are one of the main 25 inputs to models. And Ramboll developed three emission

273 1 inventories: A 2014 based case, which is based on the NEI 2 inventory, and there were some adjustments made to that, 3 which were appropriate. They also develop -- and the 2014 4 inventory was used basically to test the accuracy of the 5 model. And I have no real objections to the model testing 6 that was done. 7 They also developed a 2028 future-year base case. 8 And this is -- this inventory is really important in this 9 proceeding because it shows -- it demonstrates very 10 significant reductions in NOx and VOC emissions, but, 11 unfortunately, there's no documentation provided regarding 12 what sources are included, calculation methods, 13 future-year assumptions going from 2014 to 2028. 14 MS. KATZ: Madam Hearing Officer, I'm sorry to 15 interrupt. I'm concerned that this is modeling testimony 16 and not directed at Mr. Baca's. And if -- if that could 17 be explained, because, to me, this seems to have to do 18 with Mr. Morris's testimony. 19 MR. BLEWITT: It is -- Madam -- 20 HEARING OFFICER ORTH: Mr. Rose? Let's -- I'm 21 going to call on Mr. Rose. 22 MR. BLEWITT: Okay. 23 MR. ROSE: Yes, Madam Hearing Officer, I believe 24 what -- what the witness is testifying to is the 25 adequacies, or in his view the inadequacies of the plan.	275 1 modeling, so it's very hard to separate all of these 2 issues. 3 I think the procedural issue that we have -- and 4 this really goes to the other presentation -- this 5 future-year base case, which is really crucial in -- in 6 the modeling and the impacts and the benefits, has no 7 documentation whatsoever. There's some emission totals 8 presented, but they're not -- they're very vague and we 9 really can't address what's going on there. 10 That 2028 emissions inventory needs to talk about 11 reductions from controls that will be implemented from 12 recently promulgated sources. That's not discussed. 13 Retired sources that have changed -- have changed fuel 14 type from oil to natural gas, that's -- retired sources 15 are not discussed. 16 Growth calculations, that's a very important 17 issue for oil and gas because of the unique nature of oil 18 and gas emissions, which I will talk about at another time 19 in this. The calculation methodology that was used did 20 not, in my opinion -- although I can't confirm this -- 21 address the issue of decline from natural gas wells which 22 affects both long-term VOC and NOx emissions. 23 Natural gas wells decline. The reason many new 24 wells are being drilled is to offset the decline in 25 production with new production, and these -- these wells
274 1 And the plan as it references the modeling and uses the 2 modeling as a decisional tool in the plan, I believe is 3 what he's addressing. 4 Now, I can't remember if Mr. Blewitt had other 5 slides. Most of this will probably be addressed when the 6 Department's modeling witness testifies, I think, 7 tomorrow, as to the adequacy of the modeling itself. But 8 as to the plan, I believe -- 9 Mr. Blewitt, I thought you had other slides 10 specifically addressed to the plan that we circulated 11 yesterday, and this is really modeling-related. 12 HEARING OFFICER ORTH: Okay. Ms. Katz has drawn 13 a distinction that's helpful here. 14 MR. ROSE: There it is. This looks like right -- 15 now we've got the right slide there. 16 MS. KATZ: Thank you. Yes, I agree. 17 HEARING OFFICER ORTH: Okay. 18 MR. ROSE: Ms. Katz, I think you're muted. 19 HEARING OFFICER ORTH: Yeah. Okay. Go ahead. 20 A. I thought this was a modeling discussion, which 21 is why I pulled up those slides. I'm sorry. 22 The first slide we really talked about, which was 23 the same in both of them, and I think the plan also needs 24 to address the cost to control in terms of ambient 25 impacts. And this is -- this directly relates back to	276 1 decline exponentially. And some emission sources, such as 2 compressors, dehydration units, tank emissions will -- are 3 directly related to production rate. 4 There are some inconsistencies in VOC emissions 5 presented in the Ramboll technical support document that 6 need to be resolved. And the 2028 emission inventory 7 really needs stakeholder and public review. I think those 8 are all important issues that really pertain to spending 9 some more time looking at what's been done to make sure we 10 actually achieve what we're looking for. 11 If the 2028 future-year base case were 12 implemented -- and we don't know what that is -- how would 13 NMED address enforceability? The last thing we want to do 14 is have sources have emission limits that are state-only 15 emissions limits, versus federally enforceable emission 16 limits. 17 And Mr. Baca sort of alluded to the fact that 18 some of what we're talking about here might not be 19 federally enforceable. And I think that's -- that's an 20 important issue that has to be addressed. The modeling 21 did not separate NOx and VOC emissions. And we have heard 22 discussions about impacts from various oil and gas 23 segments, but it's been combined. 24 And we really don't know the relative importance 25 of NOx or VOCs. Mr. Morris's testimony that will be given

277 1 tomorrow, he indicated there were only a few grid cells, 2 areas where concentrations were computed that -- 3 MS. KATZ: Objection. I'm sorry. Mr. Morris is 4 not testifying and so it's inappropriate to be addressing 5 his testimony here 6 HEARING OFFICER ORTH: I thought we had drawn 7 that distinction, Mr. Rose. 8 MR. ROSE: Madam Hearing Officer, it relates to 9 adequacy of the plan. And that's what I thought 10 Mr. Baca's testimony was related to, that the modeling 11 deficiencies and some of the information that Mr. Blewitt 12 is identifying were not included in and they're not part 13 of the plan, and, therefore, the plan itself was 14 insufficient, in addition to the modeling having problems. 15 HEARING OFFICER ORTH: Okay. And, again, to the 16 extent that he's expressly referring to testimony we 17 haven't heard yet, I don't know that he's walking on the 18 right side of that line. And I understand they're all 19 interconnected, but we're now down to his last seven 20 minutes of testimony, so I'm hoping he can get back to 21 rebutting Mr. Baca's testimony. 22 A. Let me restate that. NMED needs to carefully 23 review ozone formation of NOx versus VOCs, and that was -- 24 and what was done in the modeling combined both NOx and 25 VOCs together, and it is not possible to separate that.	279 1 HEARING OFFICER ORTH: Thank you. Ms. Devore? 2 MS. DEVORE: No, thank you. 3 HEARING OFFICER: Oh, okay. Thank you. 4 Mr. Nykiel? 5 MR. NYKIEL: No questions, Madam Hearing Officer. 6 HEARING OFFICER ORTH: All right. Mr. de 7 Saillan? 8 MR. DE SAILLAN: No questions. Thank you. 9 HEARING OFFICER ORTH: Thank you. Mr. Hiser? 10 MR. HISER: No questions, Madam Hearing Officer. 11 HEARING OFFICER ORTH: Thank you. Mr. Janoe? 12 MR. JANOE: No questions, Madam Hearing Officer. 13 HEARING OFFICER ORTH: Thank you. Mr. Butzier? 14 MR. BUTZIER: No questions. 15 HEARING OFFICER ORTH: Thank you. Ms. Gutierrez? 16 MS. GUTIERREZ: No questions. Thank you. 17 HEARING OFFICER ORTH: Thank you. Mr. Neumann? 18 MR. NEUMANN: No questions. Thank you. 19 HEARING OFFICER ORTH: Thank you. And 20 Ms. Witherspoon? 21 MS. WITHERSPOON: No questions. 22 HEARING OFFICER ORTH: Thank you. I'm going to 23 turn now to see if the Board has any questions. While I'm 24 doing that, in the event you are not a panelist and you 25 have a question for Mr. Blewitt, please reach out in the
278 1 I think an iterative process needs to be 2 established to resolve all of the identified technical 3 issues that I've pointed out here, and that concludes my 4 remarks. 5 MR. ROSE: Thank you, Mr. Blewitt. 6 HEARING OFFICER ORTH: Thank you. 7 MR. ROSE: I have no further questions of this 8 witness. 9 HEARING OFFICER ORTH: All right. Thank you, 10 Mr. Rose. 11 Ms. Katz, do you have questions of Mr. Blewitt at 12 this time? 13 MS. KATZ: No, I do not and neither does 14 Mr. Knight. He will be doing the -- the surrebuttal. 15 HEARING OFFICER ORTH: Oh, okay. Thank you. 16 Ms. Fox? 17 MS. FOX: None, Madam Hearing Officer. Thank 18 you. 19 HEARING OFFICER ORTH: Thank you. Ms. Paranhos? 20 MS. PARANHOS: No questions, Madam Hearing 21 Officer. 22 HEARING OFFICER ORTH: Thank you. Professor 23 Pacyniak? 24 PROFESSOR PACYNIK: No questions right now, 25 Madam Hearing Office.	280 1 Chat. 2 EXAMINATION BY THE BOARD OF DOUG BLEWITT 3 HEARING OFFICER ORTH: Madam Chair, do you have a 4 question of Mr. Blewitt? 5 CHAIRPERSON SUINA: No questions from me, Madam 6 Hearing Officer. Thank you. 7 HEARING OFFICER ORTH: Thank you. Vice-Chair 8 Trujillo-Davis? 9 VICE-CHAIR TRUJILLO-DAVIS: Yes, I have a couple 10 of questions. Thank you, Madam Hearing Officer. And my 11 questions actually -- I had a very difficult time hearing 12 the full testimony, so I just want to clarify. Is the 13 basis of your testimony that the 2028 projections are too 14 conservative in their calculation because they failed to 15 account for well decline and recently promulgated rules? 16 MR. BLEWITT: Let me answer that in several 17 parts. The emission -- I believe that the emissions in 18 the 2028 inventory may be -- may not be accurate. They 19 may be inflating NOx emissions and VOC emissions. I have 20 reviewed the Mancos EIS emission inventories, and I saw 21 that that was the case in those inventories. 22 And that this emission inventory was developed 23 directly from the Mancos, I believe. This -- if emissions 24 are -- are overstated, that means air quality will 25 actually be better. And also, it will affect the cost to

281 1 control calculations because you won't see as much of a 2 reduction. 3 The good news is that the modeling shows very 4 dramatic reductions in ozone from the 2028 case. So it's 5 kind of an interesting situation. The -- there's 6 tremendous reduction in ozone concentrations predicted by 7 the model for this technical emission inventory. We think 8 it may be biased on the high side, which would mean even 9 lower -- lower emissions or lower ozone impacts. Does 10 that answer your question? 11 VICE-CHAIR TRUJILLO-DAVIS: Yes, I think so. 12 Thank you for clarifying your testimony. 13 HEARING OFFICER ORTH: All right. Thank you. 14 Member Cates? 15 BOARD MEMBER CATES: No questions. 16 HEARING OFFICER ORTH: All right. Member Bitzer? 17 BOARD MEMBER BITZER: No questions. 18 HEARING OFFICER: Thank you. Member Garcia? 19 MEMBER GARCIA: (Shaking head.) 20 HEARING OFFICER: No. No questions. And Member 21 Honker? 22 BOARD MEMBER HONKER: No questions. 23 HEARING OFFICER ORTH: Thank you very much. 24 Did any of that raise anything for you on 25 redirect, Mr. Rose?	283 1 After public comment, will we be discussing the forecasted 2 schedule, or should we address that before public comment? 3 Ms. Katz, do you have an opinion about that. 4 MS. KATZ: Well, Madam Hearing Officer, Mr. Baca 5 still needs to do his surrebuttal on this topic. So I'm 6 not sure when -- did Kinder Morgan submit testimony on 7 this or? 8 MS. GUTIERREZ: We did not submit testimony. I 9 was just asking for, you know, the next couple of days, 10 what the schedule would look like generally. 11 MS. KATZ: Oh, sorry. I didn't realize that that 12 was the question. 13 HEARING OFFICER ORTH: All right. So let's come 14 back at 5:05, we'll take some public comment. 15 (Recess taken from 4:59 p.m. to 5:05 p.m.) 16 HEARING OFFICER ORTH: All right. We have at 17 the 5 p.m. public comment session for Monday, September 18 20th in the rulemaking on EIB Petition 21-27. I will ask 19 you to collect your thoughts, as I'll be asking for your 20 comments just once. In the event you have more to say, 21 more than five minutes, I will ask you to put your 22 comments in writing and submit them to Pamela Jones, whose 23 contact information is on the EIB web page. 24 I do have to ask folks to be sworn to tell the 25 truth, and I will, if you have a nonstandard spelling of
282 1 MR. ROSE: No, I have no redirect questions for 2 this witness. 3 HEARING OFFICER ORTH: All right. Thank you very 4 much, Mr. Rose and Mr. Blewitt. 5 Let me encourage Mr. Blewitt to review his 6 settings or perhaps find another computer. I have to say 7 listening to technical modeling testimony is hard enough, 8 you know, to really follow for those of us that are not 9 air quality modelers without the challenge of listening to 10 the sound from a -- from a distance. 11 MR. BLEWITT: I will do my best, Madam Chairman. 12 HEARING OFFICER ORTH: Thank you so much. All 13 right. It is 4:57, we do have a 5:00 public comment 14 session. I think we should take a five-minute stand-up 15 break before we do that, just five minutes just to stand 16 up. 17 Let me speak the names of those I have who have 18 made requests to make public comment at 5. If I do not 19 read your name and you wish to make public comment in the 20 5:00 slot, please reach out in the Chat. I have Sandra 21 Ely, Ernie Carlson, Rob Rodriguez, Mary Ingam, Dora 22 Luccini-Lucero, Richard Reynaud, and Nick King. 23 Let's take five minutes. Let's come back at 5:05 24 and I will begin with the names there. 25 And then I have a question for Ms. Gutierrez:	284 1 your name, I will ask you to spell your name. And let me 2 get my little stop-clock up. I will call you in this 3 order. Sandra Ely, Ernie Carlson, Rob Rodriguez, Mary 4 Ingam, Dora Luccini-Lucero, Richard Reynaud and Nick King. 5 If you can hear me and you would like to speak in 6 this slot, rather than one of the three slots available 7 every other day of the hearing, please reach out through 8 the Chat and I will add you this evening. 9 So Sandra Ely, I am unmuting you. Ms. Ely, would 10 you raise your right hand, please. Do you swear or affirm 11 to tell the truth? 12 MS. ELY: Yes. 13 HEARING OFFICER ORTH: Thank you very much. I'm 14 starting your five minutes now. 15 SANDRA ELY, 16 having been first duly sworn or affirmed, gave 17 public comment as follows: 18 PUBLIC COMMENT BY SANDRA ELY 19 MS. ELY: Good afternoon, Madam Hearing Officer, 20 members of the Board. My name is Sandra Ely and I am the 21 Environmental Protection Division Director at the New 22 Mexico Environment Department. Executive order 2019-003 23 to address climate change and energy waste prevention, 24 sets a greenhouse gas emission reduction goal of at least 25 45 percent below 2005 levels by 2030.

285 1 The order also established the interagency 2 climate change task force and directed the agency to 3 implement specific greenhouse gas emission reduction 4 strategies. Some of these strategies have already been 5 implemented, including passing of the Energy Transition 6 Act by the legislature in 2019, and adoption of the -- of 7 new energy conservation codes by the Regulation and 8 Licensing Department in 2020. The order directed both the 9 Environment Department and the Energy and Minerals 10 Department to reduce methane emissions and energy waste in 11 new and existing sources in the oil and gas industry, as 12 soon as practicable. 13 The agencies worked together with stakeholders 14 for a period of two years to draft separate, yet 15 complimentary rules that do not duplicate, conflict, or 16 leave regulatory gaps. The two sets of rules are designed 17 to work together to provide full coverage of the industry, 18 to achieve the waste and pollution reduction New Mexicans 19 deserve. 20 While the Environment Department proposed rule 21 focuses on NOx and VOC emission reductions as required by 22 state law, reducing industry VOCs will also result in 23 methane reductions. The Energy and Minerals Department 24 natural gas waste reduction rules were adopted by the Oil 25 Conservation Commission in March of this year. It is now	287 1 pollution in parts of the state close to exceeding federal 2 health-based standards. Elevated levels of ozone 3 pollution not only put the public health at risk from 4 breathing unhealthy air, but could result in EPA stepping 5 in to mandate that the state implement federal 6 requirements to reduce ozone pollution. 7 Federal requirements will include newly-imposed 8 and extensive permitting protocols that will be costly to 9 industry and will require the Department to step up 10 significantly. 11 Thank you for the opportunity -- opportunity to 12 provide public comment today. And thank you in advance 13 for your efforts to ensure that these complicated and 14 highly technical rules are protective of public health and 15 the environment. 16 HEARING OFFICER ORTH: Thank you very much, 17 Ms. Ely. Ernie Carlson is next on my list, but I do not 18 see him among the attendees under either Ernie or Carlson. 19 Mr. Carlson, in the event that you are with us under a 20 different name, please reach out through the Chat or reach 21 out through text to (505)660-4305. 22 MR. ROSE: Madam Hearing Officer, I have a 23 question with respect to Ms. Ely's testimony, was that 24 intended to be part of the Department's affirmative case 25 since Ms. Ely, in fact, is a Department employee? I
286 1 time for the EIB to consider and adopt regulations to help 2 the state fight climate change and reduce ozone pollution. 3 These rules are important for many reasons: One, 4 because New Mexico's oil and gas industry accounts for 53 5 percent of the greenhouse gas emissions in the state, the 6 vast majority of which is methane. We must curb emissions 7 in this industry to meet our greenhouse gas reduction 8 target. 9 Two, these rules provide an opportunity for New 10 Mexico to do its part to reduce global temperatures in the 11 short-term. While methane emissions -- methane is an 12 extremely potent greenhouse gas, it is short-lived in the 13 atmosphere compared to carbon dioxide. Reducing the 14 atmospheric concentrations of methane now can slow 15 temperature rise through midcentury. 16 Three, these rules will serve as an example to 17 U.S. EPA as they move forward with regulations to reduce 18 methane and VOC emissions in the oil and gas industry, as 19 directed by President Biden on his first day in office. 20 We anticipate EPA's proposal will also be released any day 21 now. In developing and finalizing their rules, EPA has 22 and will continue to look to states like New Mexico to see 23 what is possible to achieve significant emission 24 reductions. 25 Finally, these rules will represent ozone	288 1 noticed it was -- it was labeled as public comment, but it 2 appears to be comment on behalf of the Department, as 3 opposed to really public comment. And I was curious as to 4 whether it will be considered part of the Department's 5 case or will it be public comment and given the weight the 6 Board normally does to just public comment? 7 HEARING OFFICER ORTH: All right. Ms. Katz or 8 Mr. Knight, would you like to address that? It may have 9 been designated as public comment because it was more 10 policy than technical, but let's see. Ms. Katz, there you 11 are. 12 MS. KATZ: I believe it was a statement by 13 Ms. Ely -- a nontechnical statement by Ms. Ely. 14 MR. ROSE: Madam Hearing Officer, there were 15 certainly technical representations as to impacts and how 16 this ought to be regulated. It seemed to me this is much 17 more akin to testimony that would normally come in under 18 the Department's case-in-chief or rebuttal case, as 19 opposed to public comment. 20 HEARING OFFICER ORTH: And so, let's say that it 21 would be more typically part of the Department's or 22 petitioner's affirmative case. Is it because you want to 23 ask questions? 24 MR. ROSE: Well, in fact, we would normally -- if 25 that were part of the Department's case, they would submit

289 1 prefiled direct and rebuttal testimony that all of the 2 parties would have the ability to respond to, as well as 3 then ask questions. I think a lot of what Ms. Ely covered 4 was actually covered by Ms. Bisbey-Kuehn in terms of her 5 testimony that was prefiled, but it sort of deprives us of 6 the real ability to question it. 7 I'm not sure I have any questions, but it's hard 8 to -- it's hard to decide whether to ask questions based 9 on the fly here without -- without having access to this 10 prefiled testimony. 11 HEARING OFFICER ORTH: Okay. So I disagree with 12 you about the prefiled testimony because it wasn't 13 technical. And nontechnical testimony, that is to say 14 more of the nature of policy is often not prefiled. But 15 as I said, you are always entitled to question anyone 16 testifying, so if you have a question of Ms. Ely, I will 17 ask her to rejoin us. 18 MR. ROSE: I do not. 19 HEARING OFFICER ORTH: Okay. 20 MR. ROSE: It was more of a question of weight to 21 be given it from the beginning of the statement as opposed 22 to -- 23 HEARING OFFICER ORTH: All right. My 24 understanding is that the Board will be weighing all of 25 the technical testimony and all of the nontechnical	291 1 MR. RAYNAUD: Yes, it's R-E-Y-N-A-U-D. 2 HEARING OFFICER ORTH: All right. Your five 3 minutes starts now. 4 RICHARD REYNAUD, 5 having been first duly sworn or affirmed, gave 6 public comment as follows: 7 PUBLIC COMMENT BY RICHARD REYNAUD 8 MR. REYNAUD: Okay. I've got -- I've only got 9 about a minute and a half, but can you guys see me on 10 video or is it just my voice? 11 HEARING OFFICER ORTH: No, it's just your voice. 12 The public comment is coming through audio, not video. 13 MR. REYNAUD: Okay. That's fine. I was just 14 wondering, you know. Okay. All right. Hello, my name is 15 Richard Reynaud, I'm a lifelong Las Cruces resident, 16 except for three years in Roswell, New Mexico in oil pump 17 development work. I graduated from NMSU in 1982 with a 18 degree in ME. I'm retired now and am a small business 19 owner and DE. Thank you to the New Mexico Environmental 20 Improvement Board for allowing these hearings. 21 Now, I have been following this rule. I've read 22 summaries from proponents and opponents of this rule, and 23 the rule, the lengthy rule. I am not in favor of this 24 rule. When I assess this situation, the economic 25 impact -- impacts stand out to me. The State of New
290 1 testimony as part of their deliberations, but thank you 2 for speaking your concern. 3 We're going to move to Rob Rodriguez, but I do 4 not see Mr. Rodriguez on the platform. Again, anyone who 5 doesn't necessarily -- isn't necessarily able to join us 6 at the exact time they said they wanted a slot can 7 certainly choose any one of the other 28 opportunities to 8 offer comment. 9 We move then to Mary Ingam. Do we see Mary 10 Ingam? I do not. Dora Luccini-Lucero. Let me see if 11 I -- it just takes a minute to scroll through 160 names so 12 I don't see Dora. Let's see. Richard Reynaud, I believe 13 I saw Richard Reynaud. There we go. 14 Mr. Reynaud, can you hear me? 15 MR. REYNAUD: Yes, I can. 16 HEARING OFFICER ORTH: Terrific. I can hear you, 17 but you're a little soft. If you would keep your voice 18 up, please. 19 MR. REYNAUD: Okay. 20 HEARING OFFICER ORTH: And if you would raise 21 your right hand first. And do you swear or affirm to tell 22 the truth? 23 MR. REYNAUD: Yes, I do. 24 HEARING OFFICER ORTH: And would you spell your 25 last name, please?	292 1 Mexico's own legislative finance committee expressed its 2 concerns about future revenues, mainly affecting education 3 in New Mexico, or largely affecting and the Small Business 4 Exemption; \$250,000 gross income, for employees less than 5 ten just doesn't make any sense to me. To gross out 6 \$250,000 with ten employees, that's a lot of work for 7 almost no profit. Does this simply mean no exemptions? 8 Now, unemployment: From today's Las Cruces Sun 9 News, New Mexico was tied along with Connecticut and New 10 Jersey for the nation's fourth highest unemployment rate. 11 You go to page 4A, and you find that Lea County -- Hobbs, 12 Lovington, has the second highest unemployment rate in New 13 Mexico. Is this the right time to do this? 14 So, in summary, I recommend to not pass this 15 rule. Let Southeast New Mexico residents decide if they 16 want to go beyond EPA restrictions. You know, where is 17 the complaints about air quality from Hobbs, Carlsbad, 18 Lovington? I -- I haven't heard any. During my time in 19 Roswell in the oil company business, I met people in 20 Artesia, people who were working small module production 21 wells. They are hard-working, honest people, making 22 honest living, and have been painted in a bad light, in my 23 opinion, and I will speak up for them. 24 Thank you again to the New Mexico Environmental 25 Improvement Board.

293 1 HEARING OFFICER ORTH: Thank you, Mr. Reynaud. 2 All right. I see Mr. King, Nicholas King, standard 3 spelling. I'm unmuting you, Mr. King. Can you hear me? 4 MR. KING: Yes, I can. 5 HEARING OFFICER ORTH: I can hear you very 6 clearly. If you would raise your right hand, please. Do 7 you swear or affirm to tell the truth? 8 MR. KING: I so affirm. 9 HEARING OFFICER ORTH: Thank you. Your five 10 minutes starts now. 11 PASTOR NICHOLAS KING, 12 having been first duly sworn or affirmed, gave 13 public comment as follows: 14 PUBLIC COMMENT BY PASTOR NICHOLAS KING 15 MR. KING: Well, first of all, I would like to 16 thank all of this panel for the hard work on these life 17 and death issues. It's no small thing to deal with all of 18 these tedious issues and I thank you for doing that for 19 all of us. My name is Nick King, and I'm pastor of the 20 Carlsbad Mennonite Church. 21 Caring for God's creation is a God-given 22 responsibility that we are all charged with. Caring for 23 the health of our neighbors and caring for future 24 generations in the middle of this climate change is what 25 we are all obligated to, unless we just serve our own	295 1 technology to do this. Although, we all need to do our 2 part in consuming less, me included, and producing less 3 carbon, we, as a society, need to make realistic 4 regulations that manage the larger entities for the good 5 of all. 6 May God give each of you wisdom and strength to 7 move ahead, in spite of the strong opposition of some 8 economic interests. Thank you. 9 HEARING OFFICER ORTH: Thank you, Pastor King. 10 All right. Let me ask if there's anyone else who would 11 like to make a public comment at this session. There are 12 28 more sessions at 9, 1 and 5, between now and October 13 1st. I see no one reaching out through the Chat. 14 Ms. Katz, it seems to me like it would be 15 worthwhile, so long as it wouldn't be too lengthy, to 16 return to Mr. Baca -- I'm sorry, Mr. Knight, to return to 17 Mr. Baca for his surrebuttal unless you think that would 18 be a more lengthy exercise. 19 MR. KNIGHT: We would like to do that, Madam 20 Hearing Officer. Mr. Baca has prepared a demonstrative 21 PowerPoint for this and I acknowledge that we were -- we 22 should have sent it around to the other parties. I will 23 represent that it consists of the figures and maps that 24 were attached to some of his written testimony, so I don't 25 think there's anything surprising or controversial in this
294 1 immediate economic interests, which Jesus would call 2 selfishness; one of the most basic of sins. It's 3 self-interest versus the best for all. That's the 4 question. 5 In the last few years a lot has been improved in 6 the oilfield as we see considerably fewer flaring in the 7 area now, that's just one of the visible effects, so 8 things can be changed. Improvements can be done, as we 9 see in Colorado, but we need more monitoring. There's 10 very little monitoring down here to see what the air 11 quality is. And we need more regulation, although none of 12 us likes regulation, but we need regulation of leakage, of 13 pneumatic valves and of emissions for completion and 14 redevelopment projects. 15 This may cost a little more or will cost a little 16 more, but as in construction, there are all kinds of costs 17 of doing business. The question is, do the companies for 18 profit pay now, or do we, as taxpayers and healthcare 19 providers, pay way more in the future for this upcoming 20 fiasco. But we, as taxpayers, need to front the money for 21 much more reasonable inspections or we will all certainly 22 pay later, that there is way too little money for 23 inspection and enforcement of that kind of stuff. 24 I've been out in the oilfield and leaks can 25 easily be seen with the flare camera. We have the	296 1 PowerPoint. And so I would ask that he be allowed to 2 present that PowerPoint along with his surrebuttal 3 testimony if there is no objection. And I would say if -- 4 you know, if someone -- I would ask that we be allowed to 5 present it and if -- if any party has an objection along 6 the way, we can, you know, we can deal with it at that 7 time. 8 HEARING OFFICER ORTH: All right. I think that's 9 a good strategy. Did I hear someone trying to say 10 something? No? All right. 11 MR. ROSE: Just one question. I was wondering if 12 Mr. Knight would make sure that the rest of us get a copy 13 of that demonstrative exhibit. It doesn't have to be this 14 evening, it could be tomorrow at some point, that would be 15 fine. 16 MR. KNIGHT: Yes. I appreciate that and we will 17 certainly -- certainly send that out to all the parties 18 very soon. 19 MR. ROSE: Thank you, Madam Hearing Officer. 20 HEARING OFFICER ORTH: Thank you, Mr. Rose. 21 Thank you, Mr. Knight. 22 To the extent any other party believes that they 23 have been subjected to some unreasonable surprise as we go 24 through Mr. Baca's surrebuttal, please -- I'll give you an 25 opportunity to put that on the record at the right time.

297 1 In the meantime, I'm going to make Mr. Baca a presenter. 2 MR. KNIGHT: Thank you. 3 HEARING OFFICER ORTH: Mr. Baca, you should have 4 the privilege of sharing your PowerPoint. 5 MR. BACA: Thank you, Madam Hearing Officer. I 6 do have that privilege now. 7 MICHAEL BACA, 8 having been previously duly sworn, was examined and 9 testified as follows: 10 SURREBUTTAL DIRECT EXAMINATION OF MICHAEL BACA 11 BY MR. KNIGHT: 12 Q. Mr. Baca, let me know when you're ready for me to 13 begin the questions for your surrebuttal. 14 A. Okay. Is my screen sharing at this time? 15 Q. Not yet. 16 There it is. All right. Shall we begin? Okay. 17 Mr. Baca, now I'm going to have you address issues that 18 were raised by Mr. McNally and Mr. Blewitt in their 19 prefiled rebuttal testimony. So this is surrebuttal. 20 Let's see. 21 Mr. McNally's -- just for everyone's information, 22 Mr. McNally's rebuttal testimony was NMOGA Rebuttal 23 Exhibit 45 and Mr. Blewitt's rebuttal testimony was IPANM 24 Rebuttal Exhibit 12, as previously pointed out. 25 So, Mr. Baca, Mr. McNally contends that Chaves	299 1 restricts the applicability of any regulations promulgated 2 by the Board under this provision, to only those sources 3 in counties with monitors. Therefore, he reasons that 4 because Chaves County lacks an ozone monitor, sources in 5 that county cannot be regulated under the Board's 6 authority provided in 74-2-5 of the Air Quality Control 7 Act. 8 He also assumes that the Board is limited to 9 considering only monitoring in modeling data when 10 determining the geographic scope of regulations that 11 promulgate under the statutory provision. He points out 12 that the most recent ozone design value for Rio Arriba 13 County for 2018 through 2020 is 65 parts per billion, and 14 that does not exceed the 95 percent of the standard. He 15 also claims that the Department did not provide for 16 photochemical modeling results to justify including Chavez 17 County in the proposed rule. 18 Q. I see. And what does the statute say about this 19 issue? 20 A. Yeah, the stated purpose of the regulations 21 adopted by the Board under the statute is to provide for 22 the attainment and maintenance of the standard. To 23 achieve this, the purpose of the statute directs the Board 24 to regulate sources within areas of the state that cause 25 or contribute to ozone concentrations exceeding 95 percent
298 1 and Rio Arriba County should not be included in the 2 geographic scope of the Ozone Attainment Initiative, the 3 Ozone Advance and the proposed rule. Why did the 4 Department decide to include those two counties in the 5 proposed rule? 6 Mr. Baca, you are on mute. 7 HEARING OFFICER ORTH: I've unmuted him. 8 A. Can you hear me now? 9 Q. (BY MR. KNIGHT) Yes, much better. Go ahead. 10 A. Okay. Yes, in short, Madam Chair, members of the 11 Board, Madam Hearing Officer, in short, these counties are 12 widely recognized as part of the respective oil and gas 13 basins and contain oil and gas sources that -- that emit 14 precursor pollutants and thereby cause or contribute to 15 ozone concentrations. The statute does not require an 16 analysis to quantify the retrieving impacts from sources 17 to determine if they cause or contribute to elevate ozone 18 beyond any given threshold amount in any area of the 19 state. Excuse me. 20 Q. Yes. So why are some of the assertions 21 Mr. McNally -- or excuse me. What are some of the 22 assertions that Mr. McNally makes in his prefiled rebuttal 23 testimony to support his position? 24 A. Yeah, Mr. McNally's testimony is premised on the 25 incorrect assertion that the Air Quality Control Act	300 1 of the NAAQS. 2 The statute does not say that the regulations can 3 only apply to counties with monitors showing 4 concentrations exceeding 95 percent, so, logically, the 5 boundaries of any designated nonattainment area would not 6 be restricted to county lines or counties with monitors. 7 Q. What factors are considered in determining the 8 boundaries for a newly-designated nonattainment area? 9 A. Yeah, air quality agencies and EPA consider five 10 factors when recommending and promulgating designations in 11 nonattainment area boundaries. This includes -- 12 COURT REPORTER: I'm sorry. Mr. Baca, you need 13 to slow down. You're reading and you need to slow down. 14 It's been a long day. Please. Okay? 15 MR. BACA: Okay. 16 COURT REPORTER: Thank you. 17 MR. BACA: Can you -- can you read back where I 18 was at? 19 COURT REPORTER: Yes. "Air quality agencies and 20 EPA consider five factors." 21 A. Air quality and EPA consider five factors when 22 recommending and promulgating designations and 23 nonattainment area boundaries, including the nearby areas 24 that contribute to exceedances in violating or 25 nonattainment areas. These factors include air quality

301 1 data, emissions and emissions-related data, meteorology, 2 geography, topography and jurisdictional boundaries. 3 So these are the appropriate factors for the 4 Board to consider as they provide the information to build 5 a conceptual model of how ozone is formed and transported 6 in a region. So, although photochemical modeling data and 7 source contribution data may be used, it has not been 8 required for past nonattainment designations when 9 including nearby areas in the nonattainment boundary. 10 So, social apportionment would generally be used 11 only when evaluating nonattainment areas that span 12 multiple -- multiple jurisdictions or states. 13 Q. Okay. So, how would you respond to Mr. McNally's 14 testimony regarding the monitored readings at the Rio 15 Arriba air monitor and the lack of a monitor in Chaves 16 County? 17 A. So, regarding the most recent design value at the 18 Rio Arriba monitor, you know, we -- they are correct in 19 stating that the 2016 to 2000 -- or 2018 to 2020 design 20 value is below the standard as we can see on the 21 PowerPoint here. 22 So the Rio Arriba monitor is this green line 23 here. So we can see over the past year, that that fell 24 below, so the 95 percent is this orange line here, and we 25 can see that for the two previous averaging periods that	303 1 ozone levels in New Mexico. 2 So the proposed rule targets the control of ozone 3 precursor emissions from that sector. Chaves and Rio 4 Arriba County have substantial oil and gas sector activity 5 and are widely recognized as part of the Permian and San 6 Juan production basins, respectively. So the emission 7 profiles of these two counties do not differ significantly 8 from the other counties in their respective basins. 9 Including Chaves and Rio Arriba County, it acknowledges 10 that they are part of the production basins and that the 11 oil and gas sector contributes to regional formation. 12 A conceptual model of ozone in the two basins 13 would not be complete without including these two 14 counties. Without them, the nature and cause of elevated 15 ozone would not be fully characterized, the scope and 16 scale of the problem would not be identified, and a 17 complete description of nearby emissions sources that 18 contribute to the problem would not be complete. 19 Recognizing and disclosing formation and 20 transport is not limited in geographic scope. EPA 21 establishes nonattainment boundaries by evaluating 22 relevant information for the entire area containing 23 violating monitors, and any adjacent counties or nearby 24 areas that have the potential to contribute to that 25 nonattainment violation.
302 1 the monitor was actually exceeding 95 percent of the 2 standard. 3 Q. Okay. Let's see. NMED -- well, okay. 4 A. I guess I can -- let me move on to this slide 5 here. So NME -- NMED does not operate an ozone monitor in 6 Chaves County; however, the statute requires that the 7 Board regulate sources of emissions that cause or 8 contribute to elevated concentrations greater than 95 9 percent of the standard. So we have two contiguous 10 counties, Eddy and Lea County, that have monitoring sites 11 of ozone concentrations above that threshold. The trend 12 has been rise -- has been rising in concentrations at this 13 site. 14 So if we take a look, I mean you can see that in 15 Southeastern New Mexico, that, you know, over time, that 16 ozone concentrations are actually rising, and this is very 17 dramatic here. You can see in Carlsbad especially, 18 concentrations are going up and also in Lea County. 19 Now, there was a dropoff in the past year, but if 20 you look from the beginning of this chart, all the way to 21 the end of the chart, there's a general direction upward. 22 So, in one conclusion and in wrapping it up, although 23 county level source apportionment modeling results do not 24 exist, the photochemical modeling conducted by Ramboll 25 clearly showed the influence of the oil and gas sector on	304 1 Using a weight of evidence to determine the 2 narrative boundaries allows both states and EPA to 3 evaluate and determine on a case-by-case basis the 4 specific facts and circumstances unique to the area. 5 NMED followed these principals when considering 6 whether or not to propose the inclusion of these counties 7 in the scope of the OAI, the Ozone Advance, and the 8 proposed rule. 9 Q. Okay. Thank you for that. And so let's -- let's 10 talk about some of the terms here. What are air quality 11 control regions, or AQCRs, as we call them, and why did 12 the Department choose to use county boundaries in this 13 rule rather than AQCRs? 14 A. All right. So now I have a map of what we call 15 air quality control regions just for illustration 16 purposes. So NMED evaluated the boundaries of the state's 17 air quality regions, as we can see there, there's 18 approximately nine -- I'm sorry, eight air quality control 19 regions in the state. And these air quality control 20 regions share similar climate, meteorology, topography, 21 vegetation, land use patterns, demographics. And so these 22 are areas of the state that are highly similar in more 23 ways than just one. 24 So, EPA, as I said earlier, we have eight air 25 quality control regions in the state, and we have the

305 1 counties in question -- Chaves County, in air quality 2 control region 155, and we have Rio Arriba County split 3 into two different air quality regions. So you can see 4 that Rio Arriba, which is this county up here, is split 5 between AQCR 157 and AQCR 14. 6 So the Carlsbad and Hobbs monitoring sites 7 provide ozone data in the air quality control region that 8 includes Chaves County. So down here, we have monitors in 9 both Eddy and -- Lea and Eddy Counties here, that cover 10 this air quality control region. 11 So in the Northwestern part of the state, we have 12 three monitors that cover San Juan County that provides 13 data for the air quality control region that contains more 14 of Rio Arriba and the majority of the oil and gas in that 15 county, so we have an air quality monitor up in San Juan 16 right here, we have one in Farmington and we have one 17 closer to the east. So we have three air quality monitors 18 in close proximity. 19 We also have an air quality monitor in air 20 quality control region 157, and that is the Rio Arriba 21 monitoring site that's near the Coyote Ranger District in 22 the national forest there. 23 So, you know, in closing, we chose to use county 24 jurisdiction lines instead of air quality control regions 25 because county boundaries are widely recognized by -- by	307 1 submit these to EPA first. 2 Q. So what about Mr. McNally's statements concerning 3 the lack of photochemical modeling to -- that would 4 justify including Chaves or Rio Arriba Counties -- what -- 5 what about his statements concerning the lack of 6 photochemical modeling? 7 A. Yeah, as I -- as I said before, technical 8 assessments are supposed to define the magnitude or 9 relative magnitude of contribution from nearby areas, but 10 EPA does not set any threshold contribution level or 11 bright-line test for determining whether the contributing 12 area should be included within the boundaries of a given 13 nonattainment area. 14 So Section 107(d) of the Clean Air Act does not 15 require EPA to set this threshold contribution. And 16 although the photochemical modeling results would be 17 insightful, they are not required; they're just one of 18 many tools available to an air quality agency or EPA to 19 determine an area's influence on another nonattainment 20 area. 21 So the statute does not require the Department to 22 provide photochemical modeling results to justify 23 inclusion in any of the areas, or county in this case, 24 within the scope of our proposed plan. And EPA's past 25 guidance for nonattainment boundary determination, which
306 1 everyone and they're well established -- well established 2 lines that most of the oil and gas sources, whom we are 3 targeting, are contained within these counties. 4 Q. Thank you. And regarding some of the testimony 5 from Mr. Blewitt, I believe regarding the locations of 6 monitors, is the Department required to have an ozone 7 monitor in Chaves County, and who approves the number and 8 siting of monitors for an area? 9 A. No, we do not have a monitoring -- a monitor in 10 Chaves County. So NMED's monitoring network is fully 11 approved by EPA. So the EPA takes the reins in 12 approving -- reviewing and approving NMED's plans for 13 monitoring the air quality. And as a matter of fact, the 14 Department actually operates more ozone monitors than is 15 required by EPA regulations. 16 Every year, the Department undertakes an annual 17 review of their monitoring network to -- to evaluate the 18 adequacy of the network and to document any changes that 19 the Department would like to make to those -- make to any 20 monitoring site. 21 In addition, that annual review includes a 22 statement of purposes for each monitor and also includes 23 evidence that the siting and operation of each monitor 24 meets the requirement of the regulations. So, all of our 25 plans are subject -- subject to public comment and we	308 1 are the five factors I reviewed earlier, are considered 2 the appropriate framework to determine which counties 3 should be included in the OAI and the proposed rule. 4 So, although, the Department did not complete a 5 five-factor analysis for each basin, the Board can 6 consider those factors and include that, one, the 7 available air quality data indicates that we have elevated 8 ozone levels in excess of 95 percent of the standard, and 9 that's in and nearby both of the counties in question. 10 As you can see by this slide, 12 of the 14 ozone 11 monitors operated by the Department are greater than 95 12 percent of the standards. Two, we can say that there is 13 significant oil and gas activity in both of these 14 counties, and that they share similar emission profiles as 15 either Eddy and Lea County, or San Juan County in the 16 Northwest. So, with both their basins, they -- they do 17 not differ significantly. 18 Three, I think we can say that the counties share 19 climatological and meteorological condition, as 20 demonstrated by them being within the same area quality 21 control region within the respective basins. And, you 22 know, we can also say, four, that the counties are 23 adjacent to the monitors that are exceeding this 24 threshold. So they're in close proximity to -- to the 25 monitors that are reaching 95 percent of the standard.

309 1 So, additionally, any of the topography or 2 geographical features of the area do not allow for 3 unrestricted air flow, or transfer of pollutants in the 4 areas. 5 So, I think, five, you know, all of the areas 6 that are considered right now are under the jurisdiction 7 of the EIB. They're easily identifiable, and I think the 8 Board should include Chaves and Rio Arriba County within 9 the scope of this rule. This would probably address 10 emissions from the oil and gas sector, and lower ozone 11 concentrations across the state. 12 I think failing to include these areas and 13 emissions would be contrary to the intent of the statute, 14 and ignore the fact that these two counties are part of 15 the common oil and gas production basins within their 16 respective areas. 17 Q. Thank you, Mr. Baca. 18 Mr. McNally has concerns with the photochemical 19 modeling section of our Ozone Advance Path Forward, which 20 was, again, the NMED Exhibit 4 that was discussed a little 21 earlier. Did you review his concerns with the Ozone 22 Advance Path Forward, and how has the Department responded 23 to those concerns? 24 A. I have reviewed Mr. McNally's rebuttal testimony 25 in this regard and agree with his assessment, so in	311 1 Q. Thank you. 2 MR. KNIGHT: And Madam Hearing Officer, we have 3 made the Amended Exhibit 4 -- we have sent that to all of 4 the other parties and after they've had a chance to look 5 at it, maybe I can renew my motion to have that admitted 6 into the record. Perhaps we can do that tomorrow morning 7 after everyone has had a chance to review it. And now we 8 have surrebuttal to Mr. Blewitt's rebuttal testimony. 9 And Mr. Baca, thank you. 10 Mr. Baca, IPANM witness, Mr. Blewitt, who 11 testified earlier today, in his written rebuttal testimony 12 he suggests that the Department should follow Sections 110 13 and 172 of the Clean Air Act to develop the plan to 14 address ozone as required by the Air Quality Control Act. 15 Do you agree? 16 A. No, I don't. Mr. Blewitt is trying to apply a 17 State Implementation Plan and writing concepts to -- 18 concepts and framework both to the Board's duties, to act 19 under the Air Quality Control Act. 20 So these concepts and frameworks he has termed 21 such as cause, contribute, and significant, but there's no 22 context with what he was providing these terms in his -- 23 in his rebuttal testimony. 24 So the concepts he describes and framework he 25 suggests are inappropriate for determining the boundaries
310 1 response to that, the Department revised the Ozone Advance 2 Path Forward and have entered it as NMED's Exhibit No. 4 3 Amended. 4 Q. Okay. 5 A. So the discussion that was included in the 6 original path forward is not -- was not ever intended to 7 provide any technical support or justification of -- of 8 the rule. It's only explanatory for EPA and the public, 9 and the Department to provide information to -- to them on 10 the modeling study and the important sectors that are 11 contributing to ozone formation. It also outlines how the 12 Department plans on addressing the issue. 13 So, some of the changes that I made to the Path 14 Forward in NMED Exhibit 4 Amended includes a more complete 15 description of the modeling, additional commentary to 16 support the conceptual models of ozone formation in the 17 state. I included the updated modeling and source 18 apportionment results for the future-year oil and gas 19 control scenario as proposed in the rule. 20 And I included a discussion of the sectors that 21 will be addressed with the Ozone Attainment Initiative, 22 including the impacts of the oil and gas sector throughout 23 the state, as well as other sectors that impact ozone 24 levels in the state, and that the Department intends to 25 target for control strategies and future rulemaking.	312 1 for this purpose, for the OAI, the Ozone Advance, and for 2 the proposed rules. And what he is suggesting would be 3 used to comply with requirements of the Clean Air Act, not 4 the New Mexico Air Quality Control Act. 5 So when I say that, you know, I'm talking about 6 he brought up Section 110(a) of the Clean Air Act, which 7 requires states to develop SIPs for the implementation, 8 maintenance and enforcement of new or revised standards. 9 So these SIPs are commonly referred as a infrastructure 10 SIPs or ISIPs because they ensure that the basic 11 authorities and programs are in place to implement any new 12 or revoked NAAQS that the EPA may promulgate. 13 The Department has submitted its ISIP to EPA 14 under Section 110 of the 2015 Ozone NAAQS in two separate 15 submissions. So the EPA has fully approved New Mexico's 16 first ISIP submission that addressed all but one of the 17 required elements under Section 110. The second 18 submission this Board just considered this past summer and 19 that -- that was for the interstate transport of ozone or 20 what we commonly refer to as a Good Neighbor SIP. And 21 this was adopted by the Board and submitted to EPA, I 22 believe, in July of this year. So that -- that was just 23 recently done. And the EPA is required to act on that 24 submission on or before January 4th, 2022. 25 So in short, the plan described by Mr. Blewitt,

313 1 already exists for the State of New Mexico and it is not 2 intended to encourage any of the early and proactive 3 measures to reduce emissions before a nonattainment 4 designation, only to ensure that the Department has the 5 capability of implementing, maintaining, and enforcing the 6 standard. 7 Section 172, on the other hand, outlines the 8 planning requirements for ozone nonattainment areas. So 9 the Department also completed a SIP submission under 10 Section 172, but only for the Sunland Park nonattainment 11 area. So that this was submitted in three submissions to 12 EPA this past summer, and it's of note that the Sunland 13 Park area is the only designated ozone nonattainment area 14 in the state. And I believe, in my opinion, that it's the 15 only one where Section 172 requirements apply. 16 The OAI uses EPA's established framework for the 17 Ozone Advance Program, to develop their moving forward. 18 The program is a successor of the Early Action Compact 19 that EPA was engaged in, in which NMED participated in, in 20 the early 2000s in the San Juan Basin, as we started 21 addressing rising concentrations in that area. 22 So, the Department feels that the intent of this 23 statute closely aligns with the principles, practices and 24 goals of the Advance Program and continues down that path. 25 Q. Now, Mr. Blewitt concludes in his rebuttal that	315 1 MS. PARANHOS: No questions. 2 HEARING OFFICER ORTH: Thank you. All right. 3 Professor Pacyniak. I think that was a no. 4 Ms. Devore? 5 MR. VIMONT: We have no questions. 6 HEARING OFFICER ORTH: All right. I think that 7 was Mr. Vimont speaking. 8 MR. VIMONT: Yes, it was. Sorry. 9 HEARING OFFICER: Okay. It's all right. 10 Let's see here. Mr. Nykiel? 11 MR. NYKIEL: No questions. Thank you 12 HEARING OFFICER ORTH: Thank you. Mr. de 13 Saillan? 14 MR. DE SAILLAN: No questions. Thank you. 15 HEARING OFFICER ORTH: Thank you. Mr. Hiser? 16 MR. HISER: Madam Hearing Officer, this is Eric 17 Hiser. We are going to have multiple questions for 18 Mr. Baca on this. And I must say that we're a little bit 19 surprised to find that there's revisions to Exhibit 4 that 20 we need to evaluate specifically in response to the 21 comments from our witness, Dennis McNally. 22 As was known to the Department, Mr. McNally was 23 in surgery today, and, hence, in no position at this point 24 to review or provide any thoughts on the documents that 25 are revisions, and ostensibly change it, so I would like
314 1 the statutory requires a plan in Doña Ana County only 2 since future-year modeling shows compliance with the ozone 3 NAAQS in all other areas of the state. Is that your 4 understanding of the statute? 5 A. No. Modeling is not a required component to 6 demonstrate cause or contribute in this context of 7 boundary determinations. So, you know, additionally, you 8 know, the requirement for a plan is triggered when the 9 ozone concentration is in excess of 95 percent of the 10 standard, and could be reasonably attributed to sources 11 within the Board's jurisdiction, including the oil and gas 12 sector, any of the -- and any other sectors they determine 13 to cause elevated ozone concentrations tracings. 14 Q. Okay. Thank you, Mr. Baca. 15 MR. KNIGHT: Madam Hearing Officer, those are all 16 the questions that I have for this witness, and he is 17 available for questions from anyone else. 18 HEARING OFFICER ORTH: All right. Thank you very 19 much. I think there are so many of us, I will put the 20 presentation screen away. There you go. Thank you. 21 Ms. Fox, do you have questions of Mr. Baca based 22 on his surrebuttal testimony? 23 MS. FOX: No. Thank you, Madam Hearing Officer. 24 Mr. Baca, thank you for your testimony today. 25 HEARING OFFICER ORTH: Thank you. Ms. Paranhos?	316 1 to be able to not have to take up that exhibit right now 2 because I don't have my expert that they're responding to, 3 to provide me any thoughts on that. 4 HEARING OFFICER ORTH: All right. So we can 5 certainly take up the question of the admissibility of the 6 exhibit on another day. It seems like we're going to be 7 together for a long time, but do you have questions of 8 Mr. Baca? 9 MR. HISER: I do have questions of Mr. Baca, and 10 I don't know that I can do my questions about his exhibit 11 because I haven't had an opportunity to review it. So if 12 I can reserve my questions on the changes to the exhibit 13 until some -- you know, some time in the future, I'd 14 appreciate it, but I do have questions on his other 15 testimony otherwise. 16 HEARING OFFICER ORTH: All right. Go ahead. 17 SURREBUTTAL CROSS-EXAMINATION OF MICHAEL BACA 18 BY MR. HISER: 19 Q. Mr. Baca, in the development of the plan and of 20 this rule, has not the Department itself stated that it's 21 relying upon the design value? 22 A. Relying on the "design value"? Can you expand on 23 that, to rely on the design value for what? 24 Q. To designate the areas of the state that are 25 subject to the scope of this rule?

317 1 A. We are using monitoring data as one of the 2 factors to consider the boundaries of the rule, the scope 3 of the rule, and the Ozone Attainment Initiative. 4 Q. So is it not true that in Section 20.2.50.2 of 5 the Department's proposal that you specifically reference 6 design value as the criterion that's being used, yes or 7 no? 8 A. Yes. 9 Q. Now, in the files that you did, you talked about 10 the statute that the legislature passed that is 11 authorizing this action; is that correct? 12 A. Yes. 13 Q. And in that, you talked about the "cause and 14 contribute," but if we look at that statutory provision, 15 does the cause and contribute finding go to the areas that 16 are subject to regulation, or does it go to the types of 17 sources that are subject to regulation under this program? 18 A. No, it says that emissions sources within the 19 environmental proving or its jurisdiction. 20 Q. Right. 21 A. Cause or contribute. 22 Q. Right. So in order for you to regulate a source, 23 is it the Department's duty to show that they cause or 24 contribute to ozone concentrations in excess of 95 percent 25 of the standard?	319 1 Board, is it not, that the Board do something, correct? 2 A. Correct. 3 Q. Okay. And what are you recommending to the Board 4 that it do under this first sentence of Subsection C? 5 A. So what we are planning to do is outlined in the 6 Ozone Attainment Initiative. That has not changed from 7 the initial Exhibit 4. The purpose of the Ozone 8 Attainment Initiative and Ozone Advance is to take 9 proactive steps to avoid a nonattainment area designation. 10 Q. So how do you know which sources to regulate 11 under the Ozone Attainment Initiative or Ozone Advance? 12 A. Well, you would evaluate which sources are in the 13 area, in the emissions, as we've provided in Exhibit 4, 14 that are a part of what is being emitted. And I think I 15 went over the five factors that we considered. And the 16 five factors would be what we considered for including or 17 determining which areas cause or contribute to exceedances 18 of 95 percent of the standard. 19 Q. Okay. But does the statute speak to areas that 20 cause or contribute, or does it speak about sources that 21 cause or contribute? 22 A. Sources. 23 Q. Okay. So not areas. 24 With respect to areas, what does the last 25 sentence of Subsection C of the statute speak to? And I
318 1 A. I do not believe so. I just believe that we have 2 to show that there is a 95 percent -- an exceedance of 95 3 percent of the standard at the monitoring site. 4 Q. So is it your testimony that the Department's 5 belief is that as long as some area of the state is in 6 excess of 95 percent, you may regulate any source of any 7 type? 8 A. If we have reason to believe that it's causing 9 the impact, yes, we can. 10 Q. So you do believe that you have to show a cause 11 or contribute in order to regulate under this program? 12 A. No, I don't. We can't -- I mean, it's part of 13 the tools that you can use, but it's not the only tool. 14 So we do have many other tools to show that emission 15 sources or the magnitude of emissions could reasonably 16 impact an adjacent area, let's say, or any other area in 17 the state, for that matter. 18 Q. So what, then, does the first sentence of Section 19 C of the statute direct the Department to do? 20 A. The first sentence, it doesn't direct the 21 Department to do anything. It directs the Board to do -- 22 to determine -- it determines that the emissions sources, 23 that they have to adopt a plan. 24 Q. I accept your correction, that it doesn't direct 25 the Department. But the Department is recommending to the	320 1 can read it for you. It says, "Rules adopted pursuant to 2 this subsection shall be limited to sources of emissions 3 within the area of the state where the ozone 4 concentrations exceed 95 percent of the primary National 5 Ambient Air Quality Standards." 6 Does that establish a geographic limit to the 7 area which regulations may be applied to sources? 8 A. No, it does not. It just says it's limited to 9 sources with emissions, within any area of the state where 10 ozone concentrations exceed. So it could be any emissions 11 anywhere in the state that -- within the area of the state 12 that the ozone concentrations exceed 95 percent, so... 13 Q. So is it your testimony that the first sentence 14 of Subsection C has no bearing on the last sentence of 15 Subsection C? 16 A. No. 17 Q. Then how do you -- how do you reconcile the first 18 and last sentences of subsection C? How do they fit 19 together, in your view? 20 A. So the rules are limited to the sources within 21 the Department's jurisdiction that can -- within areas of 22 the state where ozone concentrations are monitored at 95 23 percent. So the rules can apply to any part of any area 24 of the state where monitoring -- and reasonably be 25 attributed as exceeding 95 percent of the standard. So it

321 1 would be -- an air quality control region would definitely 2 be the first area you would look at, would be the air 3 quality control region. 4 Q. But right now the Department has chosen to do 5 counties for the moment? 6 A. Right. And in my surrebuttal, I said that we 7 started evaluating from the air quality control regions, 8 to come down. 9 Q. Okay. Now, in the testimony, you talked about 10 the five-factor analysis for cause and contribute, I 11 believe. That comes from the federal program; is that 12 true, those five factors? 13 A. Right. This is not for cause and contribute, 14 these five factors comes from EPA guidance on when they 15 designate nonattainment areas. 16 So when EPA considers what nearby areas are 17 causing exceedances of 95 percent of the standard, they 18 will undertake these five factors, and not necessarily 19 include control determinations. 20 Q. And is the Department's analysis of those five 21 factors set forth in any place in its materials prior to 22 your explanation today in your surrebuttal? 23 A. No. This is, I believe, a policy decision that 24 was not technical testimony within the Ozone Advance 25 Program and so we did not include that.	323 1 education and outreach. It can mean any control strategy 2 that you're taking to improve air quality. 3 MR. HISER: Okay. Madam Hearing Officer, that's 4 all I have for him right now. Thank you. 5 HEARING OFFICER ORTH: Thank you very much, 6 Mr. Hiser. 7 Mr. Rose, do you have questions of Mr. Baca? 8 MR. ROSE: Yes, Madam Hearing Officer, just a 9 couple of questions, I hope. 10 SURREBUTTAL CROSS-EXAMINATION OF MICHAEL BACA 11 BY MR. ROSE: 12 Q. Mr. Baca, when you discussed the ozone levels 13 potentially in Rio Arriba County, you indicated that there 14 was a monitored location, I believe, somewhere in the 15 middle of the county. Could you explain where that is and 16 who maintains that monitor? 17 A. Yes, that is the Coyote Ranger District in Rio 18 Arriba County, and that is maintained by the New Mexico 19 Environment Department. 20 Q. And are there other monitors in Rio Arriba or is 21 that the only one? 22 A. That's the only monitor. 23 MR. ROSE: Okay. Thank you, Madam Hearing 24 Officer. I have no further questions. 25 HEARING OFFICER ORTH: Thank you, Mr. Rose.
322 1 We determined the appropriate method to develop 2 the plan, in other words. 3 Q. Now, there was a question where you responded to 4 Mr. Blewitt's interpretation of plan. And you said that 5 you didn't agree with that, correct? 6 A. Correct. 7 Q. Did you -- did you provide any citation authority 8 for what you suggested, or is that your interpretation, 9 what plan means to you? 10 A. Can you restate that? Can you clarify that? 11 Q. In other words, were you -- when you gave your 12 response to Mr. Blewitt, were you relying upon a 13 Department policy or a regulation or a state statute or a 14 guidance manual that you've developed within the 15 Department that sets forth the view of what a plan is, or 16 were you giving your feel for what it is, based on your 17 position in the planning unit? 18 A. The Air Quality Control Act just states plan. 19 That's all it states. It doesn't say State Implementation 20 Plan, it just says plan. 21 Q. And what does "plan" mean to you, as an air 22 quality professional in the regulatory field? 23 A. A plan? 24 Q. Yes. 25 A. Well, it could mean anything. It could mean	324 1 Mr. Janoe? 2 MR. JANOE: No questions, Madam Hearing Officer. 3 HEARING OFFICER ORTH: Thank you. 4 Mr. Butzier? 5 MR. BUTZIER: No questions. 6 HEARING OFFICER ORTH: Thank you. Ms. Gutierrez? 7 MS. GUTIERREZ: No questions. Thank you. 8 HEARING OFFICER ORTH: Thank you. Mr. Neumann? 9 MR. NEUMANN: No questions. Thank you. 10 HEARING OFFICER ORTH: Thank you. And 11 Ms. Witherspoon? She may have stepped away. 12 All right. I'm going to turn now to the Board 13 members to see if they have any questions of Mr. Baca. 14 While I'm doing that, if you are not a panelist and you 15 have a question of Mr. Baca, please reach out to me in the 16 Chat. 17 EXAMINATION BY THE BOARD OF MICHAEL BACA 18 HEARING OFFICER ORTH: Madam Chair, do you have 19 questions of Mr. Baca? 20 CHAIRPERSON SUINA: Madam Hearing Officer, I 21 don't have any questions at this time 22 HEARING OFFICER ORTH: Thank you. Vice-Chair 23 Trujillo-Davis? 24 VICE-CHAIR TRUJILLO-DAVIS: I don't have any 25 questions at this time. Thank you.

325 1 HEARING OFFICER ORTH: Thank you. Member Cates? 2 BOARD MEMBER CATES: No questions. Thank you for 3 asking. 4 HEARING OFFICER ORTH: Okay. Thank you. Member 5 Bitzer? 6 BOARD MEMBER BITZER: Probably a real simple, 7 real quick question. My municipal level of government 8 work is really dated, but is -- is the -- is there a 9 difference between an AQMD and the AQCR? The old air 10 quality management district that I dealt with in 11 Bernalillo County, is that different than the AQCRs that 12 you're talking about now? 13 MR. BACA: Member Bitzer, Madam Chair and Madam 14 Hearing Officer, yes, an air quality management district 15 generally refers to a local air quality control agency, 16 such as Albuquerque/Bernalillo, but that term is much more 17 applied in California, where they have a lot of local air 18 quality jurisdictions, which they call air quality 19 management districts. 20 BOARD MEMBER BITZER: They had one in Bernalillo 21 County back in -- they probably still do. 22 MR. BACA: We still do. 23 BOARD MEMBER BITZER: Yeah. Once you're under 24 those, it's hard to get out. So, thank you. That's all I 25 had.	327 1 in the air quality -- the same air quality control region 2 that the Carlsbad air monitor is in? 3 A. Yes, it is. It's within the same control region 4 as the Carlsbad and Hobbs monitor. 5 Q. And is it true that the Rio Arriba County is -- 6 or at least a portion of Rio Arriba County or half of it 7 is in the air quality control region -- the same air 8 quality control region as San Juan County? 9 A. That is correct. The three monitors in San Juan 10 County are within the same air quality control region as 11 the oil and gas sources in Rio Arriba County. So if 12 you'll remember, the Rio Arriba County at the Continental 13 Divide is split east and west. And then on the west side 14 of the Continental Divide is heavy oil and gas activity 15 right along the San Juan border and really close to our 16 Navajo Lake San Juan monitor. 17 MR. KNIGHT: Okay. Thank you. That's all the 18 questions I have for this witness. 19 HEARING OFFICER ORTH: All right. Thank you. Is 20 there any reason not to excuse Mr. Baca? No? 21 Thank you very much, Mr. Baca. As I understand 22 it, other parties may or may not have questions once 23 they've had a chance to look at amended Exhibit 4, but so 24 far as I know, that would be the only reason to recall him 25 based on the events of the last hour. So, thank you,
326 1 HEARING OFFICER ORTH: Thank you, Member Bitzer. 2 Member Garcia? 3 BOARD MEMBER GARCIA: Yes, Madam Hearing Officer, 4 I have one quick question. 5 Mr. Baca, you mentioned that there's no monitor 6 in Chaves County. Could you tell me, does the Department 7 have a plan to put an ozone monitor in Chaves County? 8 MR. BACA: I do not believe so at this time. As 9 I mentioned in my -- my testimony, the requirements for 10 ozone monitoring are far exceeded in that area of the 11 state. We have more than required monitors throughout the 12 state. 13 BOARD MEMBER GARCIA: Thank you, sir. That's 14 all. 15 HEARING OFFICER: Thank you. Member Honker? 16 MEMBER HONKER: I have no questions. 17 HEARING OFFICER ORTH: All right. Thank you very 18 much. 19 Mr. Knight, did that line of questioning earlier 20 raise any need to do redirect for you? 21 MR. KNIGHT: Yes, Madam Hearing Officer. I think 22 maybe just one or two redirect questions, if I may. 23 SURREBUTTAL REDIRECT EXAMINATION OF MICHAEL BACA 24 BY MR. KNIGHT: 25 Q. Mr. Baca, now, is it true that Chaves County is	328 1 Mr. Knight, for that. 2 Two things: We should -- we should adjourn for 3 the day, I believe, but two things: One is a request from 4 the Board of all parties, which is when you call your 5 witness, if you would please as part of your calling that 6 witness, or in the earliest remarks of that witness, 7 identify the exhibits that represent their testimony and 8 the other exhibits they'll be talking about. It helps 9 those of us who are surrounded by boxes and scrolling 10 through thousands of pages of documents that are on the 11 screen. So please do that. 12 The other thing is, Ms. Katz, if you would, 13 please, address the topics we're going to be able to cover 14 tomorrow. We have just a little bit of public comment, so 15 far as I can tell right now, at 9. And then, as I 16 understand it, we're going to be leaping into modeling. 17 MS. KATZ: Yes, Madam Hearing Officer. That's 18 the plan, and I believe all of the parties -- I haven't 19 heard any issues with that. I believe all of the modeling 20 witnesses are available tomorrow except for EDS witness 21 and perhaps she can be -- she can put on her testimony 22 Wednesday at some point. And so, yes, I think modeling, 23 the -- so the economic analysis and the small business 24 facility definition, so topics 5 and 6 need to go on 25 Wednesday, and, hopefully, first thing in the morning

329 1 because of our -- the Department's witness who is in the 2 UK. So I think what I would propose would be we do the 3 modeling and then we maybe move it down into some of the 4 topics on 8, 9, 10, and some of those, and see what we get 5 through. 6 HEARING OFFICER ORTH: Thank you for that, 7 Ms. Katz. Mr. Hiser, I see you on screen. Do you have a 8 comment? 9 MR. HISER: Thank you, Madam Hearing Officer. I 10 just had a question -- actually two questions for you. 11 The first is, the order's a little bit unclear, but is it 12 your intent that we circulate surrebuttal materials in 13 advance as well, or not? We just need to know for 14 purposes of timing and planning. 15 HEARING OFFICER ORTH: Yeah, I think it would -- 16 things would go more smoothly if you could -- you could do 17 that. 18 MR. HISER: Okay. 19 HEARING OFFICER ORTH: Any -- any comment on 20 that, Ms. Katz? 21 MS. KATZ: Yes, ideally -- yes, ideally, that 22 would be better than not, if they're -- if they're 23 prepared. 24 MR. HISER: I think that -- we certainly 25 understand that there may be times that parties run into	331 1 at this moment, and then we'll -- we'll leap into the 2 modeling and go from there. Thank you, all. Have a good 3 evening. 4 (Proceedings adjourned 09/20/2021 at 6:18 p.m.) 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
330 1 problems. I just was trying to understand the expectation 2 of us as well, so that we knew when we needed to have 3 things available. 4 And then the second question is somewhat related 5 to that, Madam Hearing Officer, is that Mr. Rose was a bit 6 flustered as were you during the discussion with his 7 witness, Blewitt, and I don't know if we actually touched 8 on all of the exhibits that were related to Mr. Blewitt's 9 testimony for today. And so I just wanted to make sure 10 that we had appropriately put the record together for 11 that. 12 HEARING OFFICER ORTH: Yeah. So we can clear 13 that up tomorrow. I'm looking at the wrong -- when we 14 pulled up the wrong slide stack, it was confusing and I 15 wasn't sure why I was confused. But let's -- 16 MR. HISER: Thank you. 17 HEARING OFFICER ORTH: Let's clear that up when 18 we next see Mr. Blewitt. I'll try to make a note of all 19 of these loose ends. 20 MR. HISER: Thank you. 21 HEARING OFFICER ORTH: Is there anything else 22 that we can discuss while we're together this evening 23 before we adjourn? 24 Otherwise, we'll see you at 9:00 tomorrow 25 morning. Again, I don't have a lot of public commenters	332 1 STATE OF NEW MEXICO 2 BEFORE THE NEW MEXICO ENVIRONMENTAL IMPROVEMENT BOARD 3 PROPOSED ADOPTION OF RULE 21-27 NMAC 4 RULES HEARING 5 6 REPORTER'S CERTIFICATE 7 I, THERESA E. DUBOIS, RPR, CSR #29, DO HEREBY 8 CERTIFY that on September 20, 2021, the Public Hearing of 9 the New Mexico Environmental Improvement Board, was taken 10 before me, that I did report in stenographic shorthand the 11 Proceedings set forth herein, and the foregoing pages are 12 a true and correct transcription to the best of my 13 ability. 14 I FURTHER CERTIFY that I am neither employed by 15 nor related to nor contracted with (unless excepted by the 16 rules) any of the parties or attorneys in this matter, and 17 that I have no interest whatsoever in the final 18 disposition of this matter. 19 20 21 22 23 24 25  THERESA E. DUBOIS, RPR New Mexico CCR #29 License Expires: 12/31/2021

A	77:24, 286:4	271:25, 272:5	249:10, 250:1	161:2, 163:8
A-H-R 185:17	Accumulated	313:18, 317:11	250:22, 255:3	212:4, 264:19
A-L-E-X-A-N-...	13:7, 15:21	actions 75:2	257:10, 271:18	admitted 10:7
136:25	accuracy 178:14	81:7, 249:20	272:13, 274:24	11:1, 12:1
A-R-C-E-L-I-A	186:14, 188:22	251:20	275:9, 275:21	13:1, 14:1
152:18	195:14, 273:4	active 46:17	276:13, 283:2	15:1, 16:1
AAQS 14:15	accurate 98:10	140:7, 244:8	284:23, 288:8	17:1, 18:1
abate 104:9	280:18	244:11	297:17, 309:9	20:1, 20:8
abbreviated	achievable	actively 71:1	311:14, 328:13	20:16, 40:18
129:14	90:22, 92:23	85:15	addressed 86:14	161:19, 164:5
abbreviations	93:3, 252:13	activities 68:4	92:6, 103:3	164:9, 164:10
205:9	252:23	95:23, 110:23	108:1, 131:14	166:2, 212:7
ability 90:7	achieve 47:24	111:12, 168:23	274:5, 274:10	228:11, 269:10
90:14, 221:9	52:5, 52:9	168:25, 201:5	276:20, 310:21	269:15, 270:17
289:2, 289:6	91:24, 93:6	202:20, 211:11	312:16	270:20, 311:5
332:13	98:21, 127:11	activity 85:1	addresses 113:7	admitting 39:22
able 24:13	259:11, 272:18	137:19, 303:4	153:6	adopt 41:16
24:19, 87:21	276:10, 285:18	308:13, 327:14	addressing 74:6	46:7, 75:5
90:10, 93:6	286:23, 299:23	actual 94:12	79:18, 113:1	83:14, 83:25
99:13, 108:18	achieved 247:24	155:20, 210:21	158:14, 195:3	86:4, 92:1
112:24, 126:12	achieving 93:8	acutely 154:7	274:3, 277:4	94:1, 104:15
184:21, 204:14	240:21, 272:16	Adam 92:24	310:12, 313:21	112:25, 119:20
213:21, 225:4	acid 209:16	95:6	adequacies	121:24, 122:1
251:9, 264:24	acknowledge	add 33:4, 37:7	273:25	122:3, 122:5
265:7, 265:10	295:21	77:16, 83:19	adequacy 274:7	122:7, 122:13
290:5, 316:1	acknowledges	228:15, 284:8	277:9, 306:18	127:21, 128:2
328:13	252:21, 303:9	added 228:14	adequate 89:21	168:9, 177:10
abnormalities	Acoma 81:8	addition 24:1	95:3, 238:8	187:3, 231:7
189:19	acquired 57:22	148:1, 153:19	adjacent 249:7	241:19, 248:19
abqcrs@gmail...	acres 124:14	169:20, 233:1	303:23, 308:23	250:9, 250:21
1:23	act 41:14, 42:1	234:4, 277:14	318:16	262:16, 262:16
abstract 74:18	44:23, 46:3	306:21	adjourn 23:23	286:1, 318:23
abundantly-e...	52:18, 78:15	additional	328:2, 330:23	adopted 54:3
207:11	102:19, 103:1	22:20, 62:22	adjourned 331:4	54:19, 55:23
abysmal 150:24	104:8, 105:13	66:20, 67:4	adjust 242:23	58:1, 87:2
academic 92:22	105:16, 125:11	67:9, 67:18	adjusted 123:18	87:3, 96:14
accelerate 58:8	146:23, 232:3	89:24, 94:6	adjusting	102:13, 103:5
accept 33:2	242:7, 242:8	108:20, 126:25	269:21	127:14, 129:13
33:12, 318:24	244:24, 246:19	135:18, 223:11	adjustments	252:19, 285:24
acceptable 36:8	246:20, 247:2	233:17, 252:5	156:14, 189:6	299:21, 312:21
148:10	248:2, 248:3	252:9, 310:15	195:21, 273:2	320:1
accepted 94:25	248:6, 248:7	additionally	administered	adopting 44:10
accepting	248:8, 248:9	48:7, 169:15	125:9	60:22, 75:24
145:14	248:11, 248:24	309:1, 314:7	Administration	76:1, 119:13
access 49:15	249:18, 250:3	address 18:9	75:2, 251:14	259:9
76:15, 76:21	250:8, 250:21	32:16, 34:7	administrative	adoption 55:13
289:9	251:19, 251:23	39:14, 40:1	21:9, 35:22	59:13, 62:3
accessible	256:24, 257:10	40:6, 41:14	36:17, 230:7	62:11, 64:9
154:8	259:6, 259:12	46:1, 46:14	Administrator	67:7, 72:13
accidental	285:6, 298:25	52:20, 75:6	2:9, 21:5	285:6, 332:3
266:22	299:7, 307:14	75:18, 78:10	22:2, 23:4	adopts 52:13
accommodated	311:13, 311:14	80:5, 80:24	25:11, 27:7	52:13, 74:15
235:14	311:18, 311:19	81:9, 83:18	114:4, 133:19	adult 153:8
accompanied	312:3, 312:4	85:24, 108:5	155:1, 158:8	adults 67:2
31:14	312:6, 312:23	111:2, 119:11	admissibility	244:7
account 63:24	322:18	119:17, 122:6	40:3, 316:5	advance 46:4
65:9, 120:9	acting 4:16	126:19, 127:23	admission	71:4, 113:6
173:11, 280:15	72:22, 198:22	128:12, 131:13	160:19, 269:16	248:25, 249:20
accounted 77:11	action 17:10	137:8, 153:9	admissions	249:23, 250:5
accounts 77:3	52:20, 145:16	156:10, 165:3	159:23	250:10, 257:9
	148:20, 248:12	247:16, 247:21	admit 160:12	258:15, 258:17

287:12, 298:3 304:7, 309:19 309:22, 310:1 312:1, 313:17 313:24, 319:8 319:11, 321:24 329:13 advanced 241:3 247:25 adversarial 138:5 adverse 67:15 advisory 10:20 49:4, 79:21 233:2 Advocate's 34:12 Advocates 3:13 29:9, 53:8 54:1, 54:20 58:11, 60:10 71:18, 82:1 83:3, 83:10 164:16 aerosol 206:20 afar 208:8 affect 83:16 128:7, 201:5 202:12, 204:7 206:13, 211:12 280:25 affiliates 6:18 114:7 affirm 133:21 135:3, 136:19 139:11, 143:2 146:4, 149:11 152:11, 166:10 175:10, 215:2 229:6, 239:17 265:25, 266:3 284:10, 290:21 293:7, 293:8 affirmative 287:24, 288:22 affirmed 135:13 137:4, 139:21 143:11, 146:10 149:20, 152:23 166:23, 175:19 185:21, 198:8 229:14, 266:10 284:16, 291:5 293:12 afford 75:11 142:8, 153:13 affordable 115:25 afraid 147:18 147:20 afternoon 25:5	146:14, 153:2 154:23, 159:14 207:23, 209:6 240:3, 264:20 268:4, 284:19 ag 205:5 age 67:1 agencies 120:23 120:25, 150:4 233:1, 285:13 300:9, 300:19 agency 42:1 43:8, 44:17 61:24, 76:22 87:11, 198:20 231:20, 231:21 232:14, 285:2 307:18, 325:15 agenda 114:17 115:3 aggravation 244:17 aggregated 224:16, 224:16 aggressive 59:10, 59:14 aging 209:25 ago 25:11 46:17, 93:1 97:9, 139:25 147:1, 150:19 203:9 agree 33:5 81:19, 81:25 91:1, 102:3 106:19, 108:18 136:7, 137:11 269:17, 274:16 309:25, 311:15 322:5 agreed 24:4 27:22, 86:6 93:20, 94:1 94:13, 94:15 154:4 agreement 55:3 57:19, 83:9 83:12, 83:13 83:14, 92:8 92:11, 92:13 94:10, 94:12 96:3, 96:6 109:4 agrees 64:3 ahead 145:14 145:21, 198:13 200:12, 213:9 215:6, 224:7 229:10, 274:19 295:7, 298:9 316:16	Ahr 9:5, 12:2 12:3, 43:6 45:17, 158:19 185:12, 185:13 185:16, 185:17 185:20, 185:23 185:25, 187:6 190:11, 191:10 191:12, 191:24 192:17, 193:1 193:7, 193:16 194:9, 194:11 194:17, 195:1 195:8, 195:11 195:12, 195:17 196:5, 196:10 196:15, 196:20 196:25, 197:2 197:5, 197:9 197:16, 197:22 197:23, 197:25 217:12, 217:14 246:3 aid 48:20 110:13 aim 63:17 air 3:13, 4:12 4:17, 11:7 11:24, 11:24 12:7, 12:23 13:13, 13:17 13:23, 14:5 14:14, 14:14 15:16, 16:13 17:9, 17:12 17:15, 18:3 18:15, 18:17 20:4, 21:6 29:9, 34:12 41:13, 41:20 42:1, 42:14 42:23, 43:3 43:6, 43:15 43:17, 44:4 44:23, 45:18 46:3, 47:3 47:5, 47:14 48:6, 49:7 53:1, 53:3 53:8, 54:1 54:15, 54:15 54:20, 56:8 56:17, 58:11 58:11, 58:16 58:25, 60:3 60:10, 63:8 64:6, 64:11 66:22, 66:23 66:24, 71:18 72:23, 73:1 74:21, 74:23	75:3, 75:6 75:9, 75:17 77:15, 77:20 78:11, 81:22 82:1, 82:21 83:2, 83:10 83:16, 102:15 103:1, 103:11 104:6, 104:8 104:9, 104:11 104:19, 104:22 105:7, 105:13 105:14, 105:16 105:17, 109:5 111:1, 111:10 120:2, 120:19 128:16, 128:24 129:2, 130:7 130:8, 137:17 137:22, 144:7 150:8, 150:15 153:21, 164:16 167:3, 167:8 167:12, 176:1 176:7, 176:10 176:17, 176:22 177:14, 177:16 177:16, 177:20 177:22, 177:25 178:7, 178:12 178:15, 179:3 179:7, 179:8 179:18, 180:9 183:3, 186:1 186:11, 186:12 186:14, 186:15 187:11, 187:15 187:20, 189:10 194:18, 194:18 198:21, 198:22 198:23, 199:1 200:18, 201:16 201:20, 202:15 203:10, 205:20 209:25, 210:3 210:15, 210:24 219:15, 221:8 221:10, 229:22 230:1, 230:7 230:16, 232:2 240:8, 240:16 240:19, 240:20 240:20, 240:22 241:1, 242:7 242:8, 242:9 242:9, 243:20 244:6, 244:24 245:4, 245:14 245:17, 246:19 246:19, 246:25 247:2, 247:4	247:11, 247:13 248:2, 248:3 248:6, 248:7 248:8, 248:11 248:23, 249:17 250:3, 250:8 250:14, 250:20 251:19, 251:23 256:24, 257:10 259:6, 259:12 263:14, 266:21 267:1, 267:3 271:21, 280:24 282:9, 287:4 292:17, 294:10 298:25, 299:6 300:9, 300:19 300:21, 300:25 301:15, 304:10 304:15, 304:17 304:18, 304:19 304:24, 305:1 305:3, 305:7 305:10, 305:13 305:15, 305:17 305:19, 305:19 305:24, 306:13 307:14, 307:18 308:7, 309:3 311:13, 311:14 311:19, 312:3 312:4, 312:6 320:5, 321:1 321:2, 321:7 322:18, 322:21 323:2, 325:9 325:14, 325:15 325:17, 325:18 327:1, 327:1 327:2, 327:7 327:7, 327:10 airflow 205:22 AirNow 179:3 airways 244:16 akin 288:17 al 65:2 Alamos 233:19 alarming 76:2 alarms 189:14 Albuquerque 1:20, 1:22 2:24, 4:7 6:15, 31:15 109:21, 135:21 Albuquerque's 181:19 Albuquerque/... 325:16 alert 17:3 40:8 Alexander 8:17
---	---	--	--	---

58:5, 67:17 68:1, 68:8 68:11, 68:22 69:5, 69:8 131:23, 134:3 136:13, 136:14 136:16, 136:20 136:23, 136:24 137:3, 137:6 137:7, 138:24 aligns 47:16 95:13, 313:23 alkanes 205:4 205:14 alkenes 205:5 alkyl 207:13 209:25, 210:2 Alliance 3:12 53:24 allow 26:5 26:25, 52:5 52:8, 68:24 77:21, 90:17 110:11, 123:24 204:19, 252:8 309:2 allowed 62:25 296:1, 296:4 allowing 58:3 145:7, 291:20 allows 271:8 304:2 alluded 105:10 276:17 Alpha-Gamma 14:20 alphabetical 134:10 Alpine 88:11 alternate 122:5 alternative 13:23, 18:17 52:7, 68:25 127:10, 141:20 AMANDA 2:6 ambient 11:24 41:14, 41:20 43:6, 47:3 102:5, 102:14 102:15, 104:9 104:18, 104:22 105:1, 105:1 105:7, 105:14 105:17, 106:13 111:9, 176:22 177:16, 177:20 177:22, 179:6 179:8, 179:11 179:16, 179:18 180:9, 186:14 187:11, 187:20	187:25, 188:14 200:18, 210:14 210:24, 219:15 221:8, 232:6 240:22, 242:9 243:20, 244:6 245:4, 246:25 274:24, 320:5 amenable 36:2 amended 102:19 253:13, 253:18 254:2, 255:4 310:3, 310:14 311:3, 327:23 amendment 77:3 amendments 71:19 America 6:19 114:9 American 70:12 71:1, 71:2 71:5, 74:12 Americans 67:2 83:17 amount 62:1 68:10, 80:22 88:9, 88:13 94:12, 137:15 298:18 amounts 125:15 168:25 amplifies 70:17 Ana 6:20, 31:20 114:5, 246:15 314:1 ana.gutierre... 6:23 analyses 19:13 44:7, 119:23 121:9, 121:16 121:20 analysis 15:16 15:18, 15:19 15:20, 16:2 50:7, 50:12 50:14, 59:3 64:2, 66:9 66:20, 104:23 104:25, 127:15 205:21, 216:23 259:13, 260:9 266:24, 298:16 308:5, 321:10 321:20, 328:23 analyst 241:3 Analytics 66:2 analyzed 117:10 analyzer 179:14 179:18, 179:21 analyzers 178:3 analyzing	223:24 and/or 12:16 12:18, 32:12 Andrew 2:21 9:5, 12:2 12:3, 28:25 43:6, 158:19 185:12, 185:15 185:20, 185:23 191:10, 192:17 andrew.knigh... 2:25 Andrews 5:18 101:16 Angela 8:22 11:2, 11:3 43:3, 158:17 166:4, 166:21 166:25, 172:17 animals 244:21 Ann 56:11 announce 28:7 annual 117:23 188:22, 189:19 195:14, 195:19 215:12, 246:8 306:16, 306:21 annually 66:23 115:21, 187:15 220:5, 220:7 answer 194:25 197:13, 213:21 214:20, 215:6 217:6, 219:18 280:16, 281:10 answered 219:18 answers 145:22 267:12, 270:12 antagonistic 111:17 anthropogenic 169:1, 169:6 262:12 anticipate 286:20 anticipated 121:18, 259:2 anybody 37:12 92:3, 238:6 238:7 anyway 97:23 138:18, 174:12 AP 211:23 AP-42 13:5 14:5 APCA 11:18 apologize 166:17 apparent 89:14 94:10 Appeals 104:11	appear 79:8 241:12, 254:2 appearance 22:15 appearances 22:11, 28:2 28:5, 32:12 41:6, 155:22 appeared 32:24 appears 168:3 177:4, 186:22 241:13, 257:12 288:2 Appendix 13:3 37:10, 37:24 applicability 49:19, 123:23 299:1 applicable 112:23 applications 94:23, 167:12 applied 127:16 320:7, 325:17 applies 47:12 165:7 apply 51:21 118:19, 145:3 165:11, 300:3 311:16, 313:15 320:23 applying 16:4 144:18 appointed 21:2 apportionment 11:19, 11:20 301:10, 302:23 310:18 appreciate 53:19, 54:12 61:25, 62:2 69:11, 69:12 73:9, 73:10 79:8, 81:6 97:7, 98:2 99:20, 123:20 129:24, 137:8 138:22, 145:24 183:21, 217:7 219:19, 222:20 226:9, 226:13 296:16, 316:14 appreciated 143:15 appreciates 107:19, 109:1 appreciative 111:19 approach 47:16 51:9, 51:12 95:13, 96:11	128:5 appropriate 26:23, 35:18 87:10, 87:20 101:11, 120:25 121:4, 121:8 185:8, 245:22 247:14, 273:3 301:3, 308:2 322:1 appropriately 52:24, 330:10 approval 12:15 12:18, 52:8 approved 68:3 68:25, 179:16 306:11, 312:15 approves 197:8 306:7 approving 306:12, 306:12 approximately 79:14, 80:16 115:14, 115:19 115:21, 167:6 176:4, 186:4 229:24, 230:16 234:3, 240:10 304:18 April 10:11 11:19, 11:21 14:22, 16:22 17:11, 20:5 92:2, 204:16 AQB 195:21 AQCA 248:12 AQCR 305:5 305:5, 325:9 AQCRs 304:11 304:13, 325:11 AQMD 325:9 arbitrary 112:16 Arcelia 8:20 149:6, 152:1 152:17, 152:22 152:25, 153:3 area 14:2, 14:6 14:21, 16:4 16:8, 16:11 60:17, 73:11 103:2, 113:2 183:4, 205:18 206:3, 206:4 208:8, 219:3 222:3, 223:18 227:14, 245:19 245:20, 246:5 246:14, 246:21 246:25, 247:7 247:7, 247:9
--	---	---	--	---

247:19, 247:23 248:4, 248:9 252:2, 252:3 252:7, 253:1 294:7, 298:18 300:5, 300:8 300:11, 300:23 303:22, 304:4 306:8, 307:12 307:13, 307:20 308:20, 309:2 313:11, 313:13 313:13, 313:21 318:5, 318:16 318:16, 319:9 319:13, 320:3 320:7, 320:9 320:11, 320:23 321:2, 326:10 area's 257:3 307:19 areas 52:16 77:16, 83:6 83:6, 85:4 105:3, 105:10 105:17, 106:3 106:6, 119:12 127:4, 144:10 168:25, 178:1 178:19, 183:17 187:13, 201:19 202:23, 202:23 203:19, 203:20 204:22, 206:1 206:2, 208:15 208:20, 222:2 222:8, 245:7 245:10, 245:16 245:21, 245:23 246:11, 246:13 246:14, 246:18 246:23, 247:3 249:21, 251:9 251:14, 252:19 252:24, 257:7 277:2, 299:24 300:23, 300:25 301:9, 301:11 303:24, 304:22 307:9, 307:23 309:4, 309:5 309:12, 309:16 313:8, 314:3 316:24, 317:15 319:17, 319:19 319:23, 319:24 320:21, 321:15 321:16 argument 22:22 40:21 arguments 24:14	34:18, 40:2 40:6 Arizona 3:5 aromatics 205:7 arranged 48:8 Arriba 57:11 89:14, 89:16 89:19, 298:1 299:12, 301:15 301:18, 301:22 303:4, 303:9 305:2, 305:4 305:14, 305:20 307:4, 309:8 323:13, 323:18 323:20, 327:5 327:6, 327:11 327:12 arrived 258:8 Artesia 292:20 artificial 68:2 Arts 58:16 240:25 Ashley 128:19 aside 220:7 221:10 asked 35:1 51:18, 88:17 100:3, 159:3 203:8, 203:17 267:11, 270:12 asking 39:2 89:7, 98:19 115:2, 157:19 184:20, 228:22 259:17, 263:11 283:9, 283:19 325:3 asks 121:22 aspect 202:10 250:11 aspects 87:9 111:25, 112:14 125:18, 142:2 143:17 assertion 298:25 assertions 298:20, 298:22 assess 187:14 291:24 assessment 10:10, 14:15 309:25 assessments 307:8 asset 108:2 assets 57:22 115:15, 123:13 assign 26:12 26:13, 194:20	assist 48:24 248:22 Assistant 2:12 2:17, 2:21 assisted 84:20 associated 50:4 66:14, 66:19 92:20, 129:1 156:4, 157:6 160:21, 160:24 165:14, 167:13 205:15 association 3:2 5:15, 6:6 30:15, 30:19 31:1, 31:11 53:23, 84:18 84:23, 100:2 101:18, 109:23 110:5 Association's 99:19 assume 156:25 269:15 assumed 48:13 assumes 299:8 assuming 169:10 assumptions 48:11, 273:13 assurance 11:25 43:7, 48:21 186:7, 186:10 186:13, 188:16 189:16, 211:2 assure 102:10 104:14, 105:7 105:14, 107:4 assuring 33:14 asthma 244:16 244:17 asthmatics 244:7 Atlantic 141:2 atmosphere 45:17, 58:4 80:12, 82:9 82:18, 168:12 168:14, 168:16 169:14, 169:16 207:15, 215:13 215:19, 215:24 286:13 atmospheric 58:15, 198:17 198:18, 286:14 attached 10:5 295:24 attachment 117:11 attacks 244:16 attain 105:17	251:15 attained 105:15 attaining 240:22 attainment 10:12, 10:22 41:22, 45:25 48:1, 75:13 88:1, 102:10 234:7, 234:11 239:7, 245:10 245:19, 246:13 246:22, 247:19 248:20, 249:1 249:5, 249:11 249:21, 251:9 252:1, 252:2 252:4, 252:8 298:2, 299:22 310:21, 317:3 319:6, 319:8 319:11 attainment/u... 245:24 attempt 226:9 attempted 111:20 attendance 28:13 attendee 26:18 26:19, 264:18 attendees 26:21 27:10, 131:19 214:10, 228:16 239:11, 287:18 attention 28:8 60:12, 85:18 85:19, 87:20 99:14, 113:6 147:24, 153:25 156:12 attorney 2:12 2:12, 4:5 79:5, 101:16 attorneys 332:16 attribute 120:14 attributed 314:10, 320:25 audio 27:17 133:25, 139:9 291:12 audiovisual 96:17, 98:6 audit 188:22 195:19, 196:2 196:6 audited 196:8 auditing 180:1 auditorium	145:18 auditors 186:10 195:22, 195:23 audits 186:11 August 10:18 12:11, 14:16 225:9 Austin 6:10 authorities 312:11 authority 36:18 57:4, 86:19 102:17, 103:16 104:13, 104:15 111:2, 111:13 119:7, 119:15 119:19, 120:8 201:22, 201:22 232:2, 232:5 246:21, 246:22 299:6, 322:7 authorized 75:5 authorizes 77:14 authorizing 317:11 automatic 82:10 93:12 automatically 189:4 availability 14:18, 24:7 27:25, 156:6 available 24:24 102:22, 117:10 128:3, 130:15 179:4, 179:23 181:22, 247:6 264:19, 284:6 307:18, 308:7 314:17, 328:20 330:3 Avenue 2:23 3:15, 6:9 7:11 average 66:15 88:7, 117:18 117:23, 125:12 140:1, 187:21 187:22, 187:24 188:10, 188:13 188:18, 190:5 205:3, 207:1 207:3, 207:17 208:12, 208:17 215:13, 246:8 averaged 117:17 averaging 244:23, 301:25 AVO 96:17 avoid 27:15
--	---	---	--	--

Volume 1
9/20/2021

EIB Ozone Hearing

41:24, 52:19 67:10, 75:25 112:16, 122:18 138:5, 138:16 251:20, 253:3 319:9 aware 103:2 104:7, 138:3 138:3, 142:3 154:7, 238:11 259:22 awesome 156:21	314:24, 315:18 316:8, 316:9 316:17, 316:19 323:7, 323:10 323:12, 324:13 324:15, 324:17 324:19, 325:13 325:22, 326:5 326:8, 326:23 326:25, 327:20 327:21 Baca's 263:12 273:16, 277:10 277:21, 296:24 Bachelor 58:16 198:17, 230:14 240:25 Bachelor's 167:18, 176:14 266:17 back 46:18 95:22, 103:5 124:1, 128:12 131:25, 138:22 140:12, 147:17 160:9, 166:2 166:3, 189:7 193:15, 194:8 195:24, 195:25 203:14, 205:21 214:15, 216:6 243:16, 253:8 274:25, 277:20 282:23, 283:14 300:17, 325:21 background 15:13, 20:5 29:25, 45:14 70:15, 178:2 208:16, 215:11 233:8, 266:16 backgrounds 27:16 backstop 74:7 77:23 backyard 76:17 147:15 bad 136:3 150:9, 150:18 292:22 BAKER 6:3 balance 85:12 112:15, 215:23 balanced 112:25 balances 52:24 bandwidth 100:10 bang 88:16 BAQ-GPA/GP-5 12:16 BAQ-GPA/GP-5A	12:18 bar 99:15 bare 75:12 Barkley 213:25 214:24, 226:24 Barr 128:25 barrel 81:12 barrels 81:12 124:10, 124:16 124:23, 124:24 125:13, 125:15 BARRY 2:6 base 11:13 11:15, 11:15 142:4, 273:7 275:5, 276:11 based 24:7 27:24, 38:24 45:22, 52:6 63:25, 64:23 67:20, 96:11 98:9, 107:21 194:11, 201:12 206:7, 234:25 235:8, 245:1 246:6, 247:11 254:7, 262:19 273:1, 273:1 289:8, 314:21 322:16, 327:25 Baseline 15:9 basic 75:12 110:3, 294:2 312:10 basically 91:8 93:20, 200:22 272:3, 273:4 basin 64:18 65:3, 65:15 81:10, 108:4 108:24, 144:9 150:1, 150:16 203:20, 204:24 205:10, 205:11 308:5, 313:20 basins 42:16 233:17, 298:13 303:6, 303:8 303:10, 303:12 308:16, 308:21 309:15 basis 49:24 52:11, 56:3 165:17, 190:3 224:10, 224:15 224:18, 244:25 280:13, 304:3 battery 92:16 bcurtis@jhjl... 3:7 bear 7:14	56:25, 78:14 87:8, 123:10 129:3 bearing 47:7 320:14 BEATTY 7:15 began 44:15 beginning 28:6 41:2, 100:8 141:6, 289:21 302:20 begins 143:9 behalf 28:24 29:13, 29:16 29:18, 30:7 30:12, 30:25 31:5, 33:11 35:11, 35:16 72:18, 182:6 192:4, 288:2 beholden 154:4 beings 151:20 belief 318:5 beliefs 150:13 believe 24:2 32:11, 33:20 35:18, 55:10 62:11, 72:11 86:3, 89:17 89:20, 90:19 91:4, 92:14 95:1, 96:21 97:2, 97:24 98:4, 98:14 104:23, 105:5 105:20, 105:23 106:2, 106:12 106:15, 106:18 107:8, 123:23 127:24, 141:7 150:7, 151:4 151:9, 151:12 153:10, 157:21 158:23, 159:19 162:23, 166:4 174:6, 184:6 185:7, 191:18 198:4, 213:15 224:18, 239:6 253:20, 260:13 263:1, 263:3 263:24, 264:1 264:17, 268:10 269:8, 270:25 273:23, 274:2 274:8, 280:17 280:23, 288:12 290:12, 306:5 312:22, 313:14 318:1, 318:1 318:8, 318:10	321:11, 321:23 323:14, 326:8 328:3, 328:18 328:19 believed 150:3 believes 52:21 107:25, 108:8 109:2, 296:22 beneficial 94:4 benefit 86:1 87:11, 110:22 115:13 benefits 62:24 78:22, 89:10 95:15, 98:25 122:20, 275:6 BENJAMIN 2:8 benzene 56:16 66:22, 80:10 Berkeley 56:12 Bernalillo 135:21, 140:2 181:16, 325:11 325:20 best 52:5, 86:7 88:6, 106:14 112:17, 135:17 150:4, 154:24 282:11, 294:3 332:12 bet 52:17 better 74:3 90:15, 95:13 96:2, 153:18 179:7, 200:4 213:21, 242:24 242:25, 243:1 243:8, 269:24 271:16, 280:25 298:9, 329:22 beyond 60:19 95:11, 197:9 269:14, 292:16 298:18 biased 281:8 Biden 251:13 286:19 big 58:22 95:24, 98:18 137:14, 138:14 bill 119:10 135:18 billion 87:15 87:17, 87:18 88:6, 88:7 88:14, 243:22 243:24, 299:13 billions 88:4 243:24 binders 268:18 biogenic 88:25
---	--	---	--	--

Biogenics 205:6 biological 168:24 Biology 176:14 biomass 169:3 Bisbey-Kuehn 9:13, 10:14 10:15, 12:5 18:7, 18:23 19:4, 42:23 228:7, 229:3 229:8, 229:12 229:16, 237:15 238:10, 238:25 289:4 bit 22:3, 22:11 35:3, 36:10 37:20, 65:17 91:24, 92:5 114:23, 124:3 157:12, 165:11 185:1, 225:13 225:14, 242:25 258:7, 315:18 328:14, 329:11 330:5 Bitzer 2:6 21:20, 21:21 157:18, 173:1 173:2, 184:3 184:4, 195:11 195:12, 196:3 196:7, 196:13 196:22, 222:25 223:1, 224:6 224:8, 224:13 224:19, 224:25 225:11, 226:6 238:2, 238:3 238:10, 261:19 261:20, 281:16 281:17, 325:5 325:6, 325:13 325:20, 325:23 326:1 blank 156:25 blanket 265:3 bleed 58:9 94:13 blemished 221:22, 221:23 Blewitt 9:23 20:17, 20:18 263:25, 264:16 264:24, 264:25 265:1, 265:4 265:8, 265:12 265:20, 265:22 266:1, 266:5 266:8, 266:12 266:14, 267:5	267:22, 268:1 268:3, 269:19 270:23, 271:3 271:6, 271:14 273:19, 273:22 274:4, 274:9 277:11, 278:5 278:11, 279:25 280:2, 280:4 280:16, 282:4 282:5, 282:11 297:18, 306:5 311:10, 311:16 312:25, 313:25 322:12, 330:7 330:18 Blewitt's 267:16, 269:14 297:23, 311:8 322:4, 330:8 block 117:17 blow 160:2 board 1:1, 2:4 2:10, 8:24 9:4, 9:7, 9:11 9:15, 9:20 9:24, 21:3 21:5, 21:10 21:16, 21:19 21:25, 22:2 22:6, 22:21 23:18, 23:21 24:4, 25:11 26:7, 27:8 27:14, 28:4 28:23, 29:5 29:12, 30:5 30:11, 30:18 31:4, 31:19 32:8, 34:19 34:24, 35:2 35:5, 36:11 36:13, 36:24 38:3, 39:3 41:16, 42:7 46:2, 46:7 46:22, 50:5 50:15, 50:21 50:24, 51:9 52:12, 52:18 52:19, 53:13 54:3, 54:19 55:13, 57:4 57:18, 59:21 60:25, 61:11 62:12, 65:21 69:13, 70:7 72:11, 73:10 73:19, 74:15 75:5, 75:15 75:21, 78:7	79:4, 81:4 83:14, 83:23 83:25, 84:15 86:3, 86:16 86:25, 87:8 87:19, 89:7 89:12, 93:6 93:21, 94:9 94:17, 96:9 98:11, 98:18 99:4, 99:18 100:2, 100:7 101:15, 102:10 102:13, 102:20 102:24, 103:2 103:3, 103:3 103:5, 103:10 103:22, 104:4 104:7, 104:20 105:6, 105:9 105:10, 105:13 106:21, 106:24 107:6, 107:17 109:17, 112:3 114:3, 114:3 115:8, 119:11 120:8, 120:9 120:12, 121:22 122:13, 123:6 129:19, 129:22 130:16, 131:5 132:2, 132:9 133:13, 133:19 137:14, 138:9 144:19, 145:7 153:2, 153:3 154:25, 155:9 156:13, 156:18 156:19, 157:20 157:21, 158:10 170:16, 172:16 172:17, 173:2 173:4, 173:13 173:19, 175:24 177:13, 182:15 182:19, 184:1 184:4, 184:11 187:7, 192:13 192:17, 195:9 195:12, 196:3 196:7, 196:13 196:22, 197:3 197:6, 197:12 197:17, 218:11 218:15, 220:4 220:12, 220:21 220:24, 221:17 222:10, 222:18 223:1, 224:1 224:8, 224:13 224:19, 224:25	225:11, 226:6 226:18, 229:19 231:10, 232:2 235:4, 237:11 237:15, 238:1 238:3, 239:6 240:3, 240:6 246:17, 246:20 248:9, 248:12 248:13, 248:18 248:23, 249:13 250:9, 250:21 250:25, 251:2 259:23, 259:24 261:6, 261:18 261:20, 261:23 262:2, 262:23 263:4, 271:20 272:3, 279:23 280:2, 281:15 281:17, 281:22 284:20, 288:6 289:24, 291:20 292:25, 298:11 299:2, 299:8 299:21, 299:23 301:4, 302:7 308:5, 309:8 312:18, 312:21 318:21, 319:1 319:1, 319:3 324:12, 324:17 325:2, 325:6 325:20, 325:23 326:3, 326:13 328:4, 332:2 332:9 Board's 21:7 23:4, 24:25 38:25, 41:12 41:18, 72:8 85:19, 115:2 115:7, 119:7 119:19, 119:19 122:8, 132:22 249:7, 250:10 250:16, 251:18 299:5, 311:18 314:11 Boards's 104:13 bodies 115:22 body 53:18 Boilers 16:14 books 102:12 boosting 116:21 117:7 border 327:15 borders 60:19 boring 138:13 botched 162:19 bottom 157:1	232:16 BOTTS 6:3 Boulder 3:23 Boulevard 1:21 boundaries 46:24, 47:12 245:17, 300:5 300:8, 300:11 300:23, 301:2 303:21, 304:2 304:12, 304:16 305:25, 307:12 311:25, 317:2 boundary 66:17 301:9, 307:25 314:7 box 4:13, 4:18 5:19, 203:21 boxes 40:12 268:16, 328:9 boy 143:7 Bracewell 6:9 31:13, 109:22 Branch 198:25 brand-new 87:6 branding 221:19 Brandon 3:3 19:22, 19:23 30:20, 43:8 84:16 break 25:3 25:4, 25:5 25:9, 84:4 84:5, 131:17 132:1, 227:25 282:15 breaking 87:6 breathe 74:21 78:12, 137:22 breathed 66:24 breathing 74:23 244:15, 287:4 Brent 9:2 11:22, 11:23 43:5, 131:22 134:2, 134:17 134:17, 134:18 158:19, 175:6 175:18, 175:21 181:13, 182:19 Brian 12:5 12:6, 18:23 19:25, 43:25 brief 84:5 114:23, 115:4 127:23, 128:9 135:16, 173:4 briefly 110:1 128:14, 129:18 132:1, 158:12 190:18, 235:5
--	--	---	---	--

270:23 Brielle 19:21 bright-line 307:11 Brindley 120:5 bring 85:18 91:2, 160:9 189:7, 195:24 214:15, 249:13 251:2, 252:24 264:24 bringing 87:5 250:24 brings 61:20 138:4 Britain 141:1 broad 164:18 broadly 51:11 bronchitis 244:18 brought 37:15 37:22, 85:18 87:1, 96:2 96:8, 111:7 233:2, 312:6 Brown 8:19 16:3, 16:8 16:10, 134:4 145:11, 145:12 145:23, 146:5 146:9, 146:12 146:13, 146:18 brunt 56:25 budget 140:8 151:11, 206:18 budgeting 95:14 buds 242:22 243:12 build 301:4 buildings 223:19, 244:22 builds 207:12 buildup 118:12 209:10 built 207:12 bullet 87:25 Bulletin 16:15 bumping 60:14 burden 87:8 burdens 42:2 52:25, 251:22 Bureau 11:24 42:24, 43:11 167:3, 173:9 176:1, 176:7 176:18, 177:23 178:12, 179:13 180:4, 180:7 186:1, 188:20 189:21, 190:10 198:21, 229:22	230:1, 230:1 230:6, 230:16 230:18, 240:8 241:2, 263:14 Bureau's 43:1 43:2, 43:4 43:5, 43:7 48:15, 49:7 167:8, 176:9 179:4, 179:24 189:1, 190:1 230:4, 240:14 Bureaus 230:9 burning 168:23 169:3 business 43:15 51:5, 51:20 84:24, 108:4 126:1, 140:8 140:10, 148:6 148:11, 185:2 221:20, 291:18 292:3, 292:19 294:17, 328:23 businesses 55:21, 83:7 115:13, 252:17 button 24:23 231:16, 271:7 271:10 Butzier 6:13 8:12, 31:8 31:9, 109:11 109:13, 109:15 109:16, 109:18 113:12, 171:19 171:20, 182:5 182:6, 192:3 192:4, 217:24 217:25, 237:1 237:2, 260:22 260:23, 268:9 268:9, 268:12 279:13, 279:14 324:4, 324:5	51:23, 246:7 calculation 189:24, 216:6 273:12, 275:19 280:14 calculations 275:16, 281:1 calendar 25:12 25:15 calendared 26:4 calibrated 118:24 calibration 180:1, 180:3 180:4 calibrations 188:25, 195:22 California 7:23 13:13, 56:12 140:19, 140:20 141:15, 325:17 call 23:13 28:11, 28:18 41:4, 55:22 59:22, 100:1 101:12, 126:4 126:14, 133:6 133:14, 133:17 155:1, 159:20 179:15, 185:10 219:6, 221:3 225:4, 264:5 273:21, 284:2 294:1, 304:11 304:14, 325:18 328:4 called 26:10 28:5, 45:21 58:9, 100:23 101:3, 103:19 106:4, 151:14 151:14, 154:24 208:22, 242:12 calling 100:25 133:18, 134:1 166:4, 328:5 calls 175:6 185:11, 228:7 camera 150:18 294:25 cameras 147:16 campaign 234:6 Campsie 128:19 CAMx 11:11 11:13, 11:13 cancer 56:22 67:15, 147:12 150:7, 150:21 153:22 canister 223:21 canisters	204:19 Canyon 204:24 205:11 cap 95:20 capabilities 91:7 capability 143:24, 313:5 capacity 124:15 173:6 Caprock 19:5 capture 58:1 210:9, 218:25 captured 98:8 carbon 18:19 80:17, 108:3 242:13, 286:13 295:3 carbons 98:23 carcinogen 80:11 cardiovascular 56:24 care 99:7 148:20, 185:1 268:19 career 153:9 careful 99:3 carefully 45:10 118:23, 138:10 277:22 caring 149:24 293:21, 293:22 293:23 Carleton 241:1 Carlisle 1:21 Carlsbad 73:2 73:6, 149:25 183:16, 199:7 200:19, 200:22 201:2, 201:6 203:1, 203:5 203:7, 204:2 204:13, 204:23 205:10, 205:16 205:19, 205:23 206:15, 206:24 208:10, 208:14 208:20, 209:9 210:13, 210:25 211:4, 211:6 211:10, 211:13 216:25, 217:4 218:24, 220:7 220:19, 222:11 292:17, 293:20 302:17, 305:6 327:2, 327:4 Carlson 282:21 284:3, 287:17 287:18, 287:19	carrying 46:2 248:23 cars 258:1 262:22 cartoon 202:3 case 11:15 11:15, 22:12 22:14, 38:21 53:6, 61:3 78:8, 87:4 96:24, 154:22 215:9, 273:1 273:7, 275:5 276:11, 280:21 281:4, 287:24 288:5, 288:18 288:22, 288:25 307:23 case-by-case 304:3 case-in-chief 288:18 cases 99:10 108:19, 119:4 123:19 Casey 7:5, 32:1 Categories 20:4 Category 16:9 Cates 2:7 21:15, 21:16 21:18, 21:19 23:7, 100:9 100:9, 172:24 183:24, 184:1 195:8, 195:9 220:2, 220:4 220:12, 220:21 220:24, 221:17 222:10, 222:18 222:24, 237:25 238:1, 261:17 261:18, 281:14 281:15, 325:1 325:2 Cates's 226:14 caught 98:8 cause 38:12 41:19, 88:23 88:24, 104:21 105:2, 122:19 153:21, 248:15 252:16, 298:14 298:17, 299:24 302:7, 303:14 311:21, 314:6 314:13, 317:13 317:15, 317:21 317:23, 318:10 319:17, 319:20 319:21, 321:10 321:13
--	---	--	---	---

caused 63:8 154:17, 244:14 causing 89:22 153:19, 318:8 321:17 CAVE 205:9 Caverns 73:2 73:6, 199:7 200:19, 200:22 201:2, 201:6 203:1, 203:5 203:7, 204:2 204:13, 204:23 205:10, 205:16 205:19, 205:23 206:15, 206:24 208:14, 209:9 210:13, 210:25 211:4, 217:1 220:19 CCM 20:18 ccolclasure@... 7:18 CCP 171:3 CCR 1:20, 15:17 15:17, 15:17 332:22 ccs@modrall.com 6:17 cdesaillan@n... 5:14 cells 277:1 center 3:14 4:2, 5:10 5:12, 29:6 29:16, 29:19 30:13, 39:10 53:14, 54:21 69:20, 70:4 70:15, 70:16 70:20, 71:9 71:11, 71:13 79:6, 79:7 79:10, 79:14 80:18, 83:3 219:2, 223:10 223:17, 223:17 Centers 141:9 Central 43:14 Centrifugal 15:4 certain 40:15 85:19, 86:4 94:22, 94:23 111:8, 111:25 117:21, 119:1 119:11, 121:6 121:11, 123:16 130:16, 159:5 226:10, 259:20 260:3, 260:9	certainly 25:15 27:5, 35:20 130:15, 131:15 132:18, 136:20 137:14, 137:19 160:9, 202:22 221:6, 221:9 221:11, 221:12 254:25, 288:15 290:7, 294:21 296:17, 296:17 316:5, 329:24 certificate 118:20, 332:6 certification 186:15, 189:20 189:22 certifications 193:22, 194:3 certified 193:22, 200:24 certify 193:18 193:23, 332:8 332:14 CFR 12:9, 12:13 13:3, 13:17 13:18, 15:14 16:13 Chaco 203:2 203:6 chain 114:22 116:14, 116:24 Chair 21:12 21:14, 28:23 29:5, 29:12 30:5, 30:11 30:18, 31:4 31:19, 31:24 32:8, 53:13 70:6, 73:19 79:3, 79:3 84:14, 98:18 99:17, 107:17 109:16, 114:2 123:6, 172:18 182:20, 183:2 192:16, 218:16 223:8, 237:16 240:2, 240:6 261:9, 280:3 298:10, 324:18 325:13 chaired 112:19 Chairman 282:11 Chairperson 2:5 2:6, 21:13 172:20, 182:22 192:18, 193:2 193:8, 218:18 219:17, 237:18 261:10, 280:5	324:20 challenge 282:9 challenges 61:23, 75:7 122:19, 129:1 chance 131:8 253:22, 311:4 311:7, 327:23 change 25:17 27:24, 34:19 36:6, 60:23 63:11, 76:4 86:21, 123:23 148:17, 148:18 151:23, 153:10 199:14, 235:3 284:23, 285:2 286:2, 293:24 315:25 changed 97:22 212:3, 254:8 275:13, 275:13 294:8, 319:6 changes 34:21 98:19, 108:8 123:22, 168:6 177:7, 186:25 231:4, 235:7 241:16, 254:3 254:5, 254:12 254:15, 254:17 254:19, 254:23 255:4, 306:18 310:13, 316:12 channel 24:25 Chapter 12:24 13:5, 14:6 characterized 213:13, 303:15 charged 293:22 Charles 5:11 30:12, 79:5 chart 117:22 208:11, 209:19 302:20, 302:21 charter 78:14 charts 207:5 207:17 Chat 9:18 26:24, 26:25 27:3, 27:3 27:5, 97:18 100:19, 133:9 133:16, 134:11 134:20, 145:13 145:20, 152:6 154:20, 155:3 157:19, 159:11 170:18, 171:3 174:1, 182:18 192:15, 197:20	214:11, 218:14 224:5, 226:11 226:11, 237:14 238:23, 261:8 262:4, 263:9 263:10, 280:1 282:20, 284:8 287:20, 295:13 324:16 chatter 148:17 Chaves 89:14 89:20, 191:16 192:21, 297:25 299:4, 301:15 302:6, 303:3 303:9, 305:1 305:8, 306:7 306:10, 307:4 309:8, 326:6 326:7, 326:25 Chavez 299:16 check 25:16 189:5, 189:9 189:17, 195:14 268:21 checks 180:4 180:5, 189:3 189:11 chemical 106:5 169:8, 169:20 chemistry 45:16 58:17, 58:18 167:18, 167:19 167:21, 173:11 240:25, 266:17 cherish 148:10 Chicago 58:17 chief 4:16 42:23, 43:10 72:22, 198:22 198:25, 230:1 230:18 chiefs 230:3 children 67:1 71:23, 153:24 154:1, 244:7 244:9 chlorotic 202:5 choice 40:25 148:22 choices 112:24 choose 290:7 304:12 chose 106:23 305:23 chosen 321:4 Chris 31:25 32:3, 123:6 Christina 6:14 31:14, 109:20 CHRISTOPHER 7:4	7:15 chromatograph 117:14 chromatographs 117:13, 117:14 117:16 chronic 244:18 chronically 76:22 Church 293:20 Cindy 19:19 19:20, 43:1 48:15 CIO 26:1 circulate 329:12 circulated 271:1, 274:10 circumstance 120:14 circumstances 120:10, 120:16 122:6, 304:4 Cisco 1:11 25:19, 25:19 citation 322:7 citations 36:14 cited 35:7 cities 178:21 citing 50:3 citizen 135:21 citizens 3:12 53:24, 99:23 112:17, 113:8 149:24, 151:13 city 116:3 181:17, 181:18 183:18 City-based 50:8 Civic 4:2 29:16, 29:19 39:11, 54:21 54:21, 69:21 70:5, 70:15 70:16, 70:20 71:9, 71:11 71:13, 83:4 claim 51:22 203:19 claims 299:15 clarification 145:24, 173:14 181:12, 183:2 257:21 clarifications 62:22 clarified 108:1 clarify 192:22 280:12, 322:10 clarifying 130:5, 281:12
---	--	--	---	---

class 252:7	4:4, 70:2	177:15	207:9, 215:9	293:14, 295:11
classes 207:6	Clinton 8:17	collective	226:11, 321:11	306:25, 328:14
207:14	131:22, 134:2	114:11	321:14	329:8, 329:19
classification	134:21, 135:7	collectively	comfort 78:11	commentary
48:2, 252:5	135:12	114:13	78:18	34:13, 35:13
253:2, 253:4	close 23:1	collects 179:1	comfortable	36:12, 37:25
classify 187:13	34:16, 50:20	College 167:19	100:11, 132:3	38:5, 38:15
clean 3:13	56:18, 57:7	241:1	coming 28:7	38:20, 310:15
29:9, 34:12	71:22, 90:24	color 57:3	85:8, 113:7	commenter
42:1, 53:8	183:13, 183:17	57:7, 67:1	121:23, 147:11	133:12
54:1, 54:20	183:19, 265:4	color-coded	147:17, 154:17	commenters
58:11, 58:16	287:1, 305:18	179:6	160:19, 160:24	132:16, 145:16
58:25, 60:10	308:24, 327:15	Colorado 3:23	163:6, 199:15	330:25
71:18, 78:12	closely 33:16	4:14, 4:18	205:25, 209:24	comments 20:12
82:1, 83:2	117:19, 313:23	5:4, 6:22, 7:7	216:11, 291:12	20:14, 22:12
83:10, 105:13	closer 242:3	7:17, 12:20	commandment	22:20, 23:24
105:16, 137:17	242:21, 305:17	12:22, 15:15	148:7	33:13, 35:6
137:17, 150:8	closest 42:15	15:16, 15:17	Commenced 12:10	37:13, 79:22
164:16, 242:7	closing 34:18	17:14, 55:23	12:14	80:2, 99:11
242:8, 244:24	121:21, 305:23	58:1, 58:18	commencing 1:12	99:19, 123:21
246:19, 247:2	Club 3:12	58:20, 59:10	commend 61:24	136:10, 143:15
248:2, 248:7	53:24	67:12, 75:19	83:11, 89:23	145:8, 146:15
251:23, 256:24	co-benefit 45:1	94:25, 114:8	96:4	147:3, 200:15
257:10, 259:6	63:21, 80:13	203:4, 220:23	commends 111:1	234:4, 234:23
259:12, 262:22	co-benefits	233:19, 267:1	comment 8:16	234:25, 235:12
268:21, 307:14	66:19	294:9	10:1, 22:16	283:20, 283:22
311:13, 312:3	co-counsel 29:7	Colorado's	23:9, 23:11	315:21
312:6	30:6, 30:21	59:13, 60:8	23:14, 23:15	commerce 118:16
cleaner 37:23	31:12, 53:15	colors 205:25	23:21, 23:22	commercial 7:3
clear 37:25	84:21, 109:19	206:2	24:1, 25:6	16:14, 31:22
63:1, 74:17	263:22	column 155:16	26:23, 27:6	32:3, 122:25
75:10, 106:22	co-emitted 63:9	155:16, 156:1	27:18, 33:17	123:8, 124:4
120:15, 161:24	63:14	156:5, 156:25	33:20, 34:2	126:21
169:24, 227:11	coal 141:4	columns 156:1	79:24, 131:18	Commission 13:8
330:12, 330:17	coal-fired	combat 60:23	131:21, 132:15	15:16, 17:15
cleared 164:13	178:22	combination	132:18, 132:20	79:18, 79:25
clearly 47:23	coalition 55:3	207:8	132:21, 133:24	285:25
50:19, 88:25	55:11	combine 272:7	134:12, 135:14	commissioned
88:25, 133:23	Coast 13:13	combined 55:14	135:15, 137:5	50:6
143:1, 149:10	code 21:9	276:23, 277:24	137:6, 139:2	Commissioner
161:18, 210:6	148:18, 148:19	combustion	139:9, 139:22	267:1
293:6, 302:25	codes 285:7	13:15, 14:6	139:23, 143:12	commitment
click 25:22	cognizant 144:7	14:21, 129:25	143:13, 145:12	54:14, 54:17
clients 29:8	Colclasure 7:15	168:23, 205:6	145:15, 146:11	61:1, 61:20
54:1, 70:8	32:3, 100:19	come 24:9, 27:6	146:12, 149:21	91:22
Cliff 71:11	cold 141:10	35:9, 47:9	149:22, 152:6	committed 71:3
71:25	colder-than-...	50:20, 53:18	152:24, 152:25	95:24, 98:21
climate 17:10	141:11	86:25, 87:19	154:21, 154:22	committee 14:2
60:17, 60:23	collaborate	101:7, 109:3	155:5, 234:3	112:18, 112:21
63:8, 63:10	245:13	134:14, 140:10	234:15, 234:21	292:1
76:4, 86:21	collaborative	147:20, 155:4	282:13, 282:18	common 77:14
146:25, 148:15	61:21	168:21, 168:24	282:19, 283:1	85:20, 120:20
148:17, 148:18	colleague 28:25	184:22, 193:20	283:2, 283:14	146:17, 146:18
153:10, 284:23	collect 23:16	193:20, 202:10	283:17, 284:17	148:24, 148:25
285:2, 286:2	223:21, 224:15	205:20, 206:2	284:18, 287:12	309:15
293:24, 304:20	283:19	253:8, 282:23	288:1, 288:2	commonly 110:13
climatological	collected 45:19	283:13, 288:17	288:3, 288:5	312:9, 312:20
308:19	60:2, 223:8	321:8	288:6, 288:9	communicate
Clinic 4:6	223:9, 223:15	comes 128:6	288:19, 290:8	27:10
70:4	224:10	140:9, 148:2	291:6, 291:7	communications
clinical 4:3	collecting	202:17, 207:7	291:12, 293:13	235:10, 235:10

communities 44:14, 53:2 54:8, 56:25 57:6, 70:11 70:20, 70:21 71:2, 71:16 72:7, 72:13 77:1, 81:10 83:17, 97:6 98:16, 110:21 115:13, 115:24 146:21, 147:22 148:7, 150:5 150:14, 151:17 151:20, 153:12 154:15, 252:17 community 10:19 52:14, 70:25 71:5, 76:16 79:11, 97:6 98:16, 115:18 137:24, 146:24 150:1, 150:3 150:23, 151:10 220:16, 232:21 232:22, 232:24 238:7 Compact 313:18 companies 51:22 85:3, 101:21 101:21, 110:6 110:9, 112:22 114:11, 114:13 116:2, 116:2 233:15, 233:16 294:17 company 6:18 6:19, 51:16 57:21, 67:23 114:7, 114:8 114:9, 115:19 115:25, 117:2 117:20, 118:15 144:1, 144:15 144:22, 292:19 comparatively 225:24 compared 87:18 121:18, 286:13 comparison 193:5, 205:13 competing 122:18, 169:15 competitive 252:16 Compilation 14:5 compile 35:2 complaint 238:6 complaints 292:17	complete 227:19 303:13, 303:17 303:18, 308:4 310:14 completed 125:12, 313:9 completely 24:6 completes 130:23 completion 58:2 82:13, 82:15 294:13 completions 55:9, 57:15 57:16, 57:20 57:24, 57:25 62:20, 69:8 complex 53:17 53:18, 83:24 99:22, 113:1 132:25, 142:10 167:13, 169:9 202:2 complexities 169:18 compliance 14:16, 33:9 33:10, 43:3 45:20, 47:3 48:13, 48:15 48:17, 48:21 52:3, 52:6 52:7, 52:9 111:16, 112:22 120:3, 122:3 122:5, 129:2 129:7, 187:10 230:4, 230:8 252:24, 272:18 314:2 complicated 106:4, 287:13 complied 33:21 49:8 complies 180:1 complimentary 285:15 comply 51:7 122:16, 127:13 136:6, 250:10 312:3 complying 53:1 74:18 component 88:15 216:12, 314:5 components 63:14, 91:20 121:6 composition 117:21 compound 98:24	207:6, 213:14 compounds 12:22 56:16, 73:5 80:6, 106:2 153:21, 168:19 201:2, 201:4 204:3, 206:13 206:19, 209:14 209:17, 210:2 211:9 comprehensive 50:14, 65:12 comprehensively 74:6 compressed 81:22 compression 12:16, 19:7 110:8, 110:11 116:17 compressor 6:6 14:3, 15:2 15:6, 19:5 31:10, 103:14 109:23, 116:17 118:18, 121:25 122:10, 122:12 122:15, 207:9 compressors 15:4, 15:5 276:2 compressors/... 13:11 comprised 101:19, 101:24 233:11 comprises 84:23 computed 187:15 187:24, 277:2 computer 179:23 180:3, 243:13 265:4, 282:6 conceded 87:16 concentration 179:18, 179:22 187:23, 190:5 207:18, 215:17 219:15, 246:9 314:9 concentrations 41:15, 42:17 46:1, 47:22 47:25, 48:23 102:6, 102:14 105:1, 106:9 106:13, 107:4 169:7, 169:19 169:22, 170:1 173:12, 177:17 178:3, 179:6 179:16, 188:10	188:14, 188:19 188:24, 189:15 190:8, 200:18 201:6, 201:11 202:7, 203:12 205:3, 206:1 207:2, 207:19 210:13, 210:23 211:7, 211:13 215:22, 217:4 232:7, 245:8 246:4, 248:16 249:8, 250:1 250:12, 250:17 250:23, 252:23 271:22, 272:4 277:2, 281:6 286:14, 298:15 299:25, 300:4 302:8, 302:11 302:12, 302:16 302:18, 309:11 313:21, 314:13 317:24, 320:4 320:10, 320:12 320:22 concepts 99:12 311:17, 311:18 311:20, 311:24 conceptual 301:5, 303:12 310:16 concern 33:22 90:2, 91:13 91:14, 93:23 93:24, 95:2 126:25, 135:18 136:4, 147:24 290:2 concerned 28:8 61:18, 92:14 147:7, 148:16 151:13, 159:8 202:13, 203:8 273:15 concerning 102:4, 104:18 307:2, 307:5 concerns 45:9 86:4, 94:17 98:24, 99:11 107:24, 108:22 127:19, 128:16 146:24, 146:25 148:15, 154:12 292:2, 309:18 309:21, 309:23 concludes 72:15 107:10, 109:7 122:23, 267:4 278:3, 313:25	conclusion 99:18, 302:22 condition 308:19 conditions 65:10 conduct 21:3 47:20, 250:15 conducted 21:7 48:12, 65:2 77:6, 119:23 121:15, 170:5 178:25, 206:7 234:18, 302:24 conducting 44:6 56:2, 66:10 98:6, 223:12 confer 78:18 conference 37:18, 131:7 conferencing 1:12 Confidentiality 17:22, 17:25 Configuration 11:12 configured 26:25 confirm 275:20 conflict 285:15 conflicts 156:15 conformity 252:12 confuse 163:13 confused 330:15 confusing 208:11, 330:14 congested 222:13 Congress 6:9 conjunction 62:7, 64:14 187:17 Connecticut 292:9 connection 100:12 ConocoPhillips 57:20, 57:22 57:23 conscience 146:22 consecutive 187:25 Consent 16:21 16:22 consequences 119:2 consequently 125:20
---	---	--	--	---

conservation 3:11, 53:21 53:22, 74:9 79:18, 79:25 96:14, 125:9 216:19, 285:7 285:25 conservative 66:12, 280:14 conservatively 59:18 consider 23:21 45:10, 57:4 72:8, 72:12 75:21, 78:13 86:3, 98:12 99:4, 128:8 144:19, 247:15 247:20, 286:1 300:9, 300:20 300:21, 301:4 308:6, 317:2 considerable 90:2 considerably 135:24, 294:6 consideration 50:21, 55:13 78:9, 99:21 107:6, 115:7 123:20, 146:17 216:18, 233:10 245:14 considerations 112:16, 247:12 247:13 considered 24:12, 97:3 97:25, 120:16 126:14, 127:13 188:3, 188:5 188:6, 222:4 288:4, 300:7 308:1, 309:6 312:18, 319:15 319:16 considering 299:9, 304:5 considers 113:7 138:9, 138:10 321:16 consistent 87:5 93:13, 119:15 119:22, 209:3 211:8 consistently 42:17 consisting 48:9 consists 177:20 295:23 constant 150:19	constantly 140:14 constitutes 196:23 constrains 46:22 construction 12:10, 12:14 77:9, 95:7 118:17, 244:8 294:16 consultant 128:24 Consultants 129:7 consultation 118:21 consulted 93:20 consulting 43:16, 44:3 49:1, 50:8 consuming 252:15, 295:2 contact 22:4 23:5, 283:23 contain 51:2 58:24, 124:15 169:19, 250:4 252:3, 298:13 contained 58:11 306:3 containers 206:9 containing 303:22 contains 305:13 contends 297:25 content 104:2 117:6, 117:23 118:1 contents 105:11 context 40:2 42:10, 75:20 76:6, 87:12 97:2, 102:25 110:3, 112:4 116:8, 121:8 311:22, 314:6 contiguous 302:9 Continental 327:12, 327:14 continue 39:3 57:23, 142:16 145:4, 148:5 148:22, 234:15 286:22 continued 3:1 4:1, 5:1, 6:1 7:1, 45:5 98:3, 109:2	150:7, 216:3 249:22 continues 74:24 77:20, 313:24 Continuing 9:1 9:12, 11:1 12:1, 13:1 14:1, 15:1 16:1, 17:1 18:1, 19:1 20:1 continuously 117:15 contracted 43:23, 47:19 48:25, 250:13 332:15 contractors 43:12 contrary 47:2 85:7, 309:13 contrast 50:9 118:1 contribute 41:19, 63:19 104:21, 105:2 206:19, 248:15 272:12, 298:14 298:17, 299:25 300:24, 302:8 303:18, 303:24 311:21, 314:6 317:14, 317:15 317:21, 317:24 318:11, 319:17 319:20, 319:21 321:10, 321:13 contributes 54:6, 135:22 135:24, 151:11 213:22, 303:11 contributing 64:8, 89:22 209:8, 249:15 250:12, 250:17 307:11, 310:11 contribution 106:12, 301:7 307:9, 307:10 307:15 contributions 88:21, 272:13 contributor 63:10, 213:16 control 11:16 12:7, 12:20 12:21, 13:15 13:23, 14:3 14:18, 14:20 14:23, 15:16 17:15, 18:17	26:8, 41:14 41:17, 43:1 44:23, 46:3 47:5, 47:15 62:19, 68:3 68:25, 69:1 69:3, 69:7 74:16, 74:18 76:13, 102:22 119:13, 122:11 125:8, 180:8 189:3, 201:13 211:15, 232:3 240:12, 240:14 241:4, 246:20 247:12, 248:3 248:6, 248:8 248:11, 248:12 248:19, 248:24 249:18, 250:3 250:8, 250:21 251:1, 251:19 252:9, 259:21 263:13, 265:7 272:6, 272:6 274:24, 281:1 298:25, 299:6 303:2, 304:11 304:15, 304:18 304:19, 304:25 305:2, 305:7 305:10, 305:13 305:20, 305:24 308:21, 310:19 310:25, 311:14 311:19, 312:4 321:1, 321:3 321:7, 321:19 322:18, 323:1 325:15, 327:1 327:3, 327:7 327:8, 327:10 controlled 16:16, 88:13 106:7 controller 17:14, 17:15 94:20, 95:12 controllers 18:20, 58:9 58:10, 58:10 58:22, 59:1 59:4, 62:4 62:19, 68:7 68:11, 68:14 68:18, 68:19 81:15, 81:16 81:21, 94:13 94:15, 94:23 108:11, 154:18 controlling	42:6, 68:6 controls 14:15 14:15, 18:2 19:17, 88:12 89:8, 94:6 98:22, 98:25 106:15, 258:6 275:11 controversial 95:1, 295:25 convened 49:5 233:1 conventional 136:24 conversation 43:10, 79:23 125:10 conversations 163:14 conversion 68:10 Convert 18:2 cool 206:1 cooler 216:7 Cooper 13:10 129:6 cooperation 112:11 coordination 107:22 copy 167:22 176:23, 186:16 230:19, 241:5 296:12 corner 26:24 Corners 60:17 correct 133:22 145:13, 152:2 157:10, 162:17 163:15, 165:2 166:19, 167:23 168:4, 174:6 191:14, 191:15 192:25, 193:6 193:7, 224:11 228:6, 231:2 231:3, 244:1 244:2, 257:1 259:25, 260:1 260:11, 260:12 262:14, 262:25 269:2, 301:18 317:11, 319:1 319:2, 322:5 322:6, 327:9 332:12 correction 318:24 corrections 267:9, 267:10 270:8
--	---	---	--	--

correctly 264:14 correlating 206:5 corresponding 42:2, 42:13 corresponds 205:22 cost 14:15 19:5, 20:2 43:24, 49:11 50:11, 50:11 59:16, 59:17 59:18, 59:18 60:8, 62:10 62:25, 64:18 66:3, 66:10 66:12, 66:15 69:3, 85:16 85:25, 86:1 86:7, 86:13 87:16, 87:21 89:10, 90:22 92:15, 93:7 93:10, 98:9 120:21, 121:2 121:5, 121:11 121:12, 121:16 121:16, 122:6 122:11, 274:24 280:25, 294:15 294:15 cost-per-ton 121:1 costly 87:14 252:15, 253:3 287:8 costs 14:8 14:9, 14:11 14:12, 14:21 14:23, 15:11 16:7, 16:17 16:20, 17:18 18:4, 19:11 49:9, 49:25 50:4, 52:14 52:15, 52:19 63:24, 63:25 66:6, 66:8 92:18, 92:25 129:1, 294:16 coughing 244:14 Council 3:12 53:24, 250:14 counsel 2:10 2:17, 2:17 2:21, 2:22 22:6, 28:2 39:15, 39:16 40:23, 61:14 113:3, 131:5	170:15 count 95:12 220:5 counties 46:23 47:13, 60:14 111:8, 111:16 115:16, 115:16 193:4, 194:5 194:15, 249:6 250:3, 298:4 298:11, 299:3 300:3, 300:6 302:10, 303:7 303:8, 303:14 303:23, 304:6 305:1, 305:9 306:3, 307:4 308:2, 308:9 308:14, 308:18 308:22, 309:14 321:5 counting 179:19 countless 130:11 country 42:13 47:20, 136:3 141:19, 141:22 153:19, 153:25 202:23, 204:23 245:7 country's 54:15 county 47:6 47:11, 57:11 89:15, 89:16 89:19, 89:20 135:21, 135:22 136:4, 143:15 181:16, 183:3 183:4, 183:5 183:7, 183:8 183:10, 183:13 183:15, 191:17 192:21, 192:24 192:25, 194:20 201:8, 246:15 292:11, 298:1 299:4, 299:5 299:13, 299:17 300:6, 301:16 302:6, 302:10 302:18, 302:23 303:4, 303:9 304:12, 305:1 305:2, 305:4 305:8, 305:12 305:15, 305:23 305:25, 306:7 306:10, 307:23 308:15, 308:15 309:8, 314:1 323:13, 323:15	323:18, 325:11 325:21, 326:6 326:7, 326:25 327:5, 327:6 327:8, 327:10 327:11, 327:12 couple 22:5 25:11, 33:11 46:16, 90:5 90:24, 116:10 158:13, 160:7 165:20, 193:12 196:14, 218:19 224:22, 225:1 225:5, 280:9 283:9, 323:9 course 93:19 114:25, 119:25 120:12, 127:8 226:18 court 1:20 7:22, 24:16 27:13, 27:16 69:24, 97:14 97:20, 97:22 104:11, 243:2 243:16, 265:14 300:12, 300:16 300:19 courts 104:10 cover 155:14 209:5, 305:9 305:12, 328:13 coverage 285:17 covered 158:19 160:23, 174:21 241:24, 289:3 289:4 COVID 220:6 COVID-19 153:16 Coyote 305:21 323:17 crafted 85:11 126:19 crafting 93:10 create 54:5 77:23, 169:13 created 106:10 creates 37:3 95:15, 106:5 creating 148:22 creation 148:6 148:9, 293:21 creative 144:11 creativity 145:2 Credible 18:5 credited 247:25 criminalize 99:8 crisis 140:22	141:23 criteria 103:13 104:1, 203:11 242:12, 242:13 243:19, 245:2 246:4, 247:4 criterion 317:6 critical 35:22 73:24, 77:23 83:22, 118:4 138:6, 138:13 critically 60:13 crops 244:21 cross-examin... 9:3, 9:6, 9:11 9:17, 9:19 9:20, 128:3 181:13, 191:10 213:10, 216:3 256:11, 316:17 323:10 cross-examine 28:12, 133:2 cross-reference 36:3 Cross-State 14:14 Cruces 3:19 291:15, 292:8 crucial 153:10 275:5 Crude 12:10 12:13 CSR 332:7 CTG 12:8 culminated 233:22 culmination 245:9 culpable 272:12 cultural 78:22 203:3, 203:6 232:23 culture 71:2 curb 234:1 286:6 cure 37:16 curious 23:2 173:5, 173:14 258:24, 288:3 current 11:17 82:6, 89:15 90:19, 91:7 93:15, 96:10 96:13, 167:7 176:5, 179:8 186:6, 187:18 194:9, 194:11 226:23, 227:3 229:25, 240:11	242:16, 243:20 243:21, 246:10 248:7, 256:14 272:1 currently 23:10 76:18, 77:11 90:21, 93:2 151:4, 178:3 178:17, 179:13 186:7, 198:22 220:22, 249:6 251:12, 256:20 260:2, 262:21 262:25, 264:18 curriculum 199:2 Curtis 3:3 30:20, 84:17 customer's 126:5 customers 110:11, 110:12 110:14, 110:22 119:2, 125:4 customized 87:4 cut 93:7 Cutoff 16:2 cutting 154:17 cycle 145:2 D D-E-V-O-R-E 198:11 daily 116:5 187:22, 188:13 188:18, 189:10 189:17, 190:7 190:7, 207:5 207:20, 246:8 Dalva 3:8 30:21, 84:20 damage 244:15 244:21 danger 150:22 dangerous 63:5 Daniel 4:3, 5:6 29:18, 30:6 73:20 Danny 108:2 dark 100:14 221:14 data 17:20 19:2, 19:6 44:7, 45:19 45:23, 48:10 49:7, 49:14 49:23, 50:9 50:13, 51:6 51:19, 75:9 117:10, 117:10
---	--	---	---	--

117:12, 169:24 176:11, 177:16 177:17, 179:1 179:3, 179:4 179:23, 180:5 186:13, 186:14 186:14, 186:15 188:1, 188:15 188:17, 188:19 188:19, 189:10 189:16, 189:17 189:18, 189:19 189:20, 189:21 189:24, 190:1 190:4, 193:14 193:17, 193:19 193:20, 193:24 194:2, 194:5 196:23, 200:24 200:25, 201:12 203:4, 203:18 206:4, 216:23 218:20, 218:21 218:25, 219:13 223:8, 223:14 224:9, 224:12 224:15, 224:22 225:18, 226:3 226:4, 226:10 227:14, 245:15 245:15, 247:12 266:25, 299:9 301:1, 301:1 301:6, 301:7 305:7, 305:13 308:7, 317:1 database 49:8 91:20, 219:12 date 91:17 124:19, 193:24 252:4, 252:8 dated 325:8 dates 232:17 234:11 David 3:17 8:18, 29:7 53:15, 58:13 64:12, 134:4 142:23, 143:5 143:10, 143:13 164:15 david@baakel... 3:20 Davis 2:6 21:14, 156:19 156:20, 172:22 day 1:9, 18:7 18:8, 19:25 23:10, 23:12 23:12, 25:2 25:5, 25:9	25:14, 44:5 45:6, 51:4 64:3, 81:13 150:6, 188:14 190:5, 207:4 207:19, 208:3 208:7, 209:5 284:7, 286:19 286:20, 300:14 316:6, 328:3 day's 25:22 day-to-day 118:4 daylight 207:25 days 148:1 283:9 DDDDD 16:13 16:14 de 3:9, 5:11 5:18, 8:8 30:9, 30:10 30:12, 78:25 79:1, 79:2 79:5, 84:2 171:10, 171:11 181:4, 181:5 191:2, 191:3 213:3, 213:4 236:15, 236:16 256:3, 256:4 279:6, 279:8 291:19, 315:12 315:14 dead 126:14 deal 75:8 135:23, 140:8 144:16, 195:15 293:17, 296:6 dealing 101:20 103:6 dealt 325:10 death 293:17 debris 118:11 decade 75:17 decades 169:25 December 16:5 16:12, 234:3 decide 136:6 289:8, 292:15 298:4 decided 257:17 decides 197:6 246:24 decimal 188:2 188:11, 188:12 decision 22:23 33:6, 35:3 43:18, 81:6 112:16, 138:8 138:14, 247:11 247:15, 251:12	257:13, 257:23 258:4, 259:3 321:23 decisional 274:2 decisions 89:4 107:7 decline 90:8 275:21, 275:23 275:24, 276:1 280:15 decrease 56:21 217:4 decreased 244:20 decreases 225:21 Decree 16:21 16:22 dedicated 153:8 deems 247:13 deeply 61:18 74:14 defense 3:12 3:21, 29:14 53:23, 54:21 61:15, 71:18 82:1, 83:3 151:5 defensible 121:13 defer 263:21 deficiencies 277:11 define 248:3 307:8 defined 179:21 209:15 defines 104:10 definitely 27:23, 27:24 208:20, 213:19 220:9, 251:11 321:1 definition 51:5 51:6, 51:8 51:20, 248:5 248:7, 328:24 definitions 64:14, 121:23 121:24 definitive 226:2 Degassing 15:4 degree 106:15 167:18, 176:14 213:23, 266:17 291:18 degrees 204:7 dehydration 276:2	Dehydrator 16:2 Dehydrators 16:6 Delaware 7:14 108:4 delay 52:18 268:6 delete 38:20 deleted 102:20 deliberations 23:22, 290:1 deliver 89:9 119:1 delivered 116:3 delivers 115:25 delivery 117:22 DELONE 3:22 3:22 demand 140:14 demo 249:25 demographics 304:21 demonstrably 74:23 demonstrate 47:23, 52:22 64:24, 68:16 249:25, 314:6 demonstrated 59:13, 308:20 demonstrates 64:7, 64:18 65:16, 273:9 demonstrating 18:15, 66:3 demonstrative 231:13, 270:25 295:20, 296:13 Dennis 88:11 88:19, 89:24 315:21 dense 266:22 density 178:2 Denver 4:14 4:18, 6:22 7:7, 7:17 220:23, 220:23 deny 77:15 DEP 13:21 Department 2:15 2:18, 2:22 12:23, 27:21 28:24, 29:1 32:19, 32:25 33:19, 41:3 41:9, 42:2 42:8, 43:9 44:18, 45:7 46:7, 46:13 46:18, 47:10 47:18, 48:8	48:21, 48:25 49:3, 50:10 50:22, 51:18 52:8, 52:21 52:24, 53:5 54:11, 67:13 76:19, 77:12 77:15, 77:25 80:3, 80:19 80:21, 81:4 81:19, 83:13 85:5, 85:9 87:2, 87:4 89:7, 91:15 91:25, 92:10 103:23, 104:2 106:16, 106:23 107:22, 109:3 114:4, 115:5 120:22, 127:11 127:13, 129:11 131:12, 163:14 165:12, 167:4 175:6, 176:2 176:3, 178:17 178:25, 179:1 179:10, 179:25 185:11, 186:2 186:3, 186:4 191:12, 227:7 228:7, 229:22 229:23, 231:21 231:22, 232:12 234:5, 234:8 234:10, 234:18 235:1, 239:8 240:8, 246:18 246:20, 248:22 249:11, 249:19 249:23, 250:4 250:9, 250:13 250:24, 251:2 252:16, 252:21 254:4, 257:12 257:16, 257:24 258:3, 258:8 258:12, 258:13 259:23, 260:3 260:5, 260:8 262:15, 262:21 262:25, 263:14 264:2, 284:22 285:8, 285:9 285:10, 285:20 285:23, 287:9 287:25, 288:2 298:4, 299:15 304:12, 306:6 306:14, 306:16 306:19, 307:21 308:4, 308:11
---	--	---	--	--

309:22, 310:1 310:9, 310:12 310:24, 311:12 312:13, 313:4 313:9, 313:22 315:22, 316:20 318:19, 318:21 318:25, 318:25 321:4, 322:13 322:15, 323:19 326:6 department's 26:1, 40:16 42:14, 42:20 42:23, 44:10 45:13, 45:18 45:24, 46:4 51:10, 73:23 74:2, 76:8 76:18, 76:23 81:5, 81:6 81:16, 81:23 86:14, 107:2 107:18, 108:9 108:11, 123:20 153:6, 163:17 163:20, 177:14 177:15, 178:7 231:11, 235:3 249:4, 257:22 274:6, 287:24 288:4, 288:18 288:21, 288:25 317:5, 317:23 318:4, 320:21 321:20, 329:1 Departments 108:14 dependent 194:17 depending 118:3 depends 25:6 25:7 depicts 116:13 deployed 178:4 deprives 289:5 Dept 15:15 desalination 144:16 describe 64:16 114:21, 155:10 167:16, 168:12 176:8, 176:12 178:24, 179:25 187:6, 189:23 230:2, 230:12 240:23 described 203:12, 312:25 describes 311:24	describing 221:2 description 155:18, 155:19 254:17, 303:17 310:15 descriptions 136:7 deserve 99:2 285:19 deserves 55:12 design 45:22 46:24, 89:16 91:6, 92:24 95:7, 187:7 187:7, 187:9 187:12, 187:14 187:23, 188:1 188:17, 189:25 190:9, 190:9 191:13, 191:16 193:5, 193:5 193:14, 193:15 193:21, 194:9 194:11, 194:12 194:15, 194:19 203:12, 219:10 246:6, 246:7 299:12, 301:17 301:19, 316:21 316:22, 316:23 317:6 designate 187:13, 246:18 246:21, 246:22 246:24, 316:24 321:15 designated 177:23, 188:8 245:18, 245:20 246:13, 247:19 247:23, 249:21 257:3, 257:8 288:9, 300:5 313:13 designates 52:16, 245:23 designating 247:3 designation 41:25, 42:3 47:9, 48:1 245:22, 246:2 246:10, 247:6 250:2, 251:17 251:21, 251:22 313:4, 319:9 designations 105:19, 245:10 245:25, 251:25 300:10, 300:22	301:8 designed 48:20 50:16, 58:23 59:5, 102:21 107:4, 109:4 285:16 designer 91:5 desire 132:16 154:21 despite 77:18 destroy 36:18 169:14 detailed 49:13 50:10, 80:2 121:15 details 49:17 detect 65:13 detected 96:23 detection 17:24 55:19, 62:23 66:7, 71:22 72:4, 82:19 82:22, 97:10 98:12, 122:14 122:17 determination 15:8, 17:22 104:20, 246:4 260:5, 307:25 determinations 17:25, 314:7 321:19 determine 52:5 105:6, 187:10 190:6, 204:21 245:7, 250:15 255:1, 298:17 304:1, 304:3 307:19, 308:2 314:12, 318:22 determined 121:3, 121:7 187:8, 188:14 242:10, 246:7 322:1 determines 190:9, 248:13 248:14, 318:22 determining 120:25, 121:5 121:10, 247:22 250:11, 299:10 300:7, 307:11 311:25, 319:17 detrimental 53:3, 153:15 develop 43:23 44:18, 49:3 49:9, 58:13 67:24, 102:15 102:20, 142:17	231:23, 233:4 249:12, 250:5 271:24, 272:6 273:3, 311:13 312:7, 313:17 322:1 developed 79:21 232:16, 234:8 248:1, 249:23 256:23, 272:20 272:25, 273:7 280:22, 322:14 developers 43:17 developing 48:24, 49:16 67:15, 115:6 140:22, 244:11 256:17, 262:22 286:21 development 11:5, 11:14 45:3, 46:5 46:18, 57:16 77:10, 130:12 140:19, 202:22 203:8, 222:5 222:8, 234:14 240:16, 266:22 291:17, 316:19 developments 90:18 deviate 210:12 deviations 76:11, 196:24 device 60:2 devices 17:9 17:10, 17:11 17:13, 68:21 81:17, 81:20 Devore 4:11 9:10, 29:23 29:24, 29:24 159:12, 159:16 170:24, 170:25 174:17, 174:17 174:18, 174:24 180:22, 180:23 185:4, 190:22 190:23, 198:2 198:3, 198:7 198:11, 198:13 198:15, 211:21 212:1, 214:6 226:9, 226:19 236:7, 236:8 236:10, 255:22 279:1, 279:2 315:4 diagnosed 150:7 dialogue 109:1	died 147:12 Diego 7:23 Diesel 14:6 differ 256:20 303:7, 308:17 difference 47:25, 65:7 100:21, 165:11 325:9 differences 123:16, 205:1 different 22:5 25:14, 33:24 51:21, 51:22 72:6, 74:24 86:25, 87:11 87:12, 87:13 107:1, 118:5 123:12, 124:5 125:20, 125:21 126:12, 163:5 204:6, 204:8 204:15, 205:3 207:5, 209:14 209:16, 209:17 216:2, 223:22 228:20, 259:21 287:20, 305:3 325:11 difficult 78:6 104:23, 164:22 169:8, 272:7 280:11 difficulties 27:10, 91:19 127:3 difficulty 244:15 digits 188:12 diligence 113:6 diminish 143:23 diminishes 208:3 Dine 3:11 Diné 53:21 dioxide 80:17 178:18, 178:18 242:14, 242:14 286:13 direct 8:23 9:3, 9:6, 9:10 9:14, 9:17 9:19, 9:24 10:8, 10:14 11:2, 11:22 12:2, 12:4 18:7, 18:12 20:17, 22:15 37:2, 37:5 54:19, 55:5 58:21, 64:23
--	--	--	---	---

99:14, 117:11 120:24, 131:8 131:11, 155:24 164:8, 166:25 167:25, 168:3 175:21, 177:1 177:4, 177:13 185:23, 186:19 186:22, 198:14 229:16, 230:5 230:22, 230:25 239:25, 241:8 241:11, 241:22 248:9, 266:12 267:6, 267:8 268:11, 268:23 269:7, 269:14 270:24, 289:1 297:10, 318:19 318:20, 318:24 directed 63:16 75:5, 119:11 273:16, 285:2 285:8, 286:19 directing 44:16 231:20 direction 91:16 96:4, 105:8 119:10, 119:15 206:6, 302:21 directive 87:5 directives 44:23 directly 25:23 168:13, 274:25 276:3, 280:23 director 66:2 108:3, 146:19 284:21 directs 78:16 78:16, 299:23 318:21 disadvantages 252:16 disagree 35:16 93:12, 289:11 disclosing 303:19 discourage 133:2 discretion 76:23, 120:13 discuss 45:16 56:17, 64:13 66:18, 67:12 108:7, 108:20 122:10, 159:20 178:6, 188:16 232:22, 249:4 258:7, 258:23 330:22	discussed 202:1 210:20, 244:2 246:3, 275:12 275:15, 309:20 323:12 discusses 49:22 discussing 80:4 91:16, 122:22 283:1 discussion 40:18, 93:19 114:24, 119:6 131:5, 133:3 156:16, 160:11 160:15, 165:21 174:21, 272:23 274:20, 310:5 310:20, 330:6 discussions 55:1, 55:7 120:7, 276:22 diseases 153:22 244:17 dislikes 51:8 disparate 72:6 72:8, 72:12 dispatchable 115:25 dispersion 43:4 130:8, 167:8 167:11, 173:10 disposal 7:3 31:23, 32:3 123:1, 123:8 124:4, 125:23 126:11, 126:21 disposed 125:7 disposing 126:1 disposition 332:18 disproportio... 153:23 disproportio... 65:19, 83:16 disregard 36:12 36:15, 38:5 39:3 disregards 35:5 148:6 disrespect 148:9 disruptive 90:4 distance 201:9 282:10 distances 209:24 distinct 116:25 distinction 36:16, 95:11 118:4, 118:13 274:13, 277:7	distinctions 117:1 distinctive 208:12 distinguishes 116:9 distracting 200:12 distribution 116:2, 116:2 169:2 district 13:13 305:21, 323:17 325:10, 325:14 districts 325:19 diverse 55:11 Divide 327:13 327:14 divided 138:18 diving 115:8 division 4:17 12:23, 72:23 79:23, 96:15 97:7, 125:9 125:10, 144:15 198:23, 199:1 284:21 Division's 216:19 Divisions 43:10 dlm@gknet.com 3:10 Docket 14:16 14:21, 14:23 16:5, 16:9 16:11 docketed 21:4 22:19 document 11:7 13:22, 13:23 14:14, 15:5 15:13, 18:17 37:3, 38:21 38:24, 177:16 196:16, 233:9 254:14, 257:15 258:2, 258:21 258:23, 276:5 306:18 documentation 49:14, 50:9 62:2, 273:11 275:7 documented 49:12 documents 22:14 22:18, 40:12 48:4, 56:2 315:24, 328:10 doing 102:8	123:18, 133:5 141:22, 150:4 151:21, 174:12 237:12, 248:22 259:8, 261:6 278:14, 279:24 293:18, 294:17 324:14 dollars 115:20 115:21 dominance 204:12 Don 57:10 Dora 282:21 284:4, 290:10 290:12 Doug 9:23 20:17, 20:18 265:21, 266:8 266:12, 280:2 Dovetailing 114:20 dozen 22:10 165:20 Doña 246:15 314:1 Dr 58:13, 58:15 58:21, 59:15 59:20, 64:5 64:6, 64:12 64:13, 64:16 65:6, 65:10 65:14, 65:21 67:5, 68:8 100:9, 158:17 166:5, 166:7 166:8, 166:12 166:14, 166:18 166:19, 167:2 168:11, 169:23 170:10, 170:19 173:5, 173:9 173:16, 174:2 174:3, 190:22 213:19, 215:25 225:3, 225:6 225:8, 225:16 226:22, 226:25 227:2, 227:4 262:11 draft 10:23 11:17, 11:19 11:20, 20:13 51:10, 79:23 93:20, 112:1 121:25, 153:6 162:16, 170:7 216:4, 231:12 233:22, 234:2 234:19, 234:24 234:25, 235:10	249:23, 285:14 drafted 76:18 80:25 drafts 80:3 dramatic 281:4 302:17 drastic 42:14 draw 34:3 153:24, 156:11 272:8 drawback 28:11 Drawer 2:13 drawn 274:12 277:6 drew 49:4 drilled 275:24 drilling 125:25 drink 137:22 drinkable 95:22 drive 2:18, 4:7 92:18, 142:9 142:11 driven 25:16 25:18, 137:24 drivers 206:17 drives 137:23 driving 206:24 dropoff 302:19 drought 63:7 dtimmons@wil... 5:9 DuBois 1:20 24:17, 97:12 97:16, 98:1 243:5, 332:7 332:21 due 19:17 67:16, 111:11 238:9 duly 135:13 137:4, 139:21 143:11, 146:10 149:20, 152:23 166:23, 175:19 185:21, 198:8 229:14, 239:23 266:10, 284:16 291:5, 293:12 297:8 Dunham 50:7 63:24 Dunham's 50:12 87:15 duplicate 285:15 duties 27:1 46:2, 167:10 176:8, 186:9 230:2, 240:13 250:11, 251:18 311:18
--	---	--	--	--

Volume 1
9/20/2021

EIB Ozone Hearing

duty 41:13 238:5, 248:23 317:23 Duval 2:8 21:22, 21:22 100:9, 100:9 100:10, 100:15 173:3, 173:4 173:13, 184:6	147:23, 153:14 177:19, 220:15 220:18, 232:23 291:24, 294:1 295:8, 328:23 economically 68:12, 69:9 121:11 Economics 50:8 economist 44:5 63:23 economy 135:23 220:16 ED 105:21 Eddy 183:3 183:5, 183:15 201:8, 302:10 305:9, 305:9 308:15 EDF 57:1, 58:4 59:3, 61:15 61:20, 61:23 63:2, 63:23 64:6, 64:10 64:13, 64:14 64:20, 66:2 66:4, 68:9 68:12, 83:10 92:21 EDF's 63:22 Edition 14:5 edits 108:20 235:11, 235:15 EDS 328:20 educated 147:1 education 4:2 29:19, 54:22 69:21, 70:5 70:16, 70:24 71:3, 71:10 71:12, 71:14 83:4, 112:21 140:9, 153:8 292:2, 323:1 educational 140:8, 167:16 176:12, 230:12 240:24, 266:15 effect 103:9 105:2, 187:19 effective 50:19 59:16, 60:9 62:10, 77:25 85:16, 86:7 87:21, 90:6 91:11, 93:10 93:10, 122:11 effectively 85:11, 90:22 effectiveness 64:19, 66:3	66:12, 69:3 98:9, 121:5 121:17 effects 47:21 86:20, 102:5 104:18, 153:23 294:7 efficient 115:12 effort 45:9 47:23, 53:19 70:8, 83:23 234:5, 234:17 efforts 44:4 44:4, 49:3 49:24, 61:21 86:10, 109:2 111:21, 113:4 127:2, 204:15 250:18, 251:8 287:13 ehiser@jhjla... 3:6 EIB 1:2, 18:21 19:1, 21:5 22:18, 25:12 59:8, 78:16 111:2, 111:14 111:22, 111:23 112:15, 113:5 146:15, 151:15 283:18, 283:23 286:1, 309:7 eight 225:9 304:18, 304:24 EIS 280:20 either 27:7 126:9, 127:24 134:18, 142:3 155:18, 172:10 200:7, 211:23 220:14, 225:19 228:16, 254:4 287:18, 308:15 El 6:18, 114:7 246:16 electricity 81:22 electronic 91:20 elementary 183:19 elements 98:13 107:25, 210:21 312:17 elevate 298:17 elevated 56:20 248:10, 287:2 302:8, 303:14 308:7, 314:13 eliminate 68:13	68:20 Elizabeth 3:22 9:13, 10:14 10:15, 12:4 18:7, 18:23 19:4, 29:12 42:22, 61:14 228:7, 228:23 229:1, 229:12 229:16, 237:15 elizabeth@de... 3:24 Ellington 9:2 11:22, 11:23 43:5, 45:17 158:19, 175:6 175:8, 175:11 175:14, 175:14 175:18, 175:21 175:24, 177:12 180:10, 180:14 181:13, 182:19 182:21, 183:3 183:5, 183:8 183:15, 183:22 183:25, 184:14 184:15, 184:16 Ely 10:2, 46:16 282:21, 284:3 284:9, 284:9 284:12, 284:15 284:18, 284:19 284:20, 287:17 287:25, 288:13 288:13, 289:3 289:16 Ely's 287:23 email 23:14 145:21, 154:25 emails 157:23 emergency 28:15 28:16 emission 13:17 14:15, 14:18 15:9, 15:10 15:19, 16:13 19:15, 43:24 47:14, 49:11 49:19, 65:7 81:20, 82:13 119:24, 121:18 122:19, 126:15 204:10, 204:10 208:22, 252:11 252:14, 258:24 272:23, 272:24 272:25, 275:7 276:1, 276:6 276:14, 276:15 280:17, 280:20 280:22, 281:7	284:24, 285:3 285:21, 286:23 303:6, 308:14 318:14 emissions 11:11 11:13, 11:14 12:21, 12:21 13:9, 13:15 13:23, 14:3 14:5, 15:4 15:8, 17:11 17:13, 18:17 18:19, 20:3 41:10, 41:17 44:20, 44:25 45:1, 46:14 46:16, 48:19 49:10, 49:24 50:1, 51:14 51:16, 52:1 52:3, 52:9 56:1, 56:4 56:5, 56:7 56:8, 57:15 57:20, 57:23 57:25, 58:2 58:3, 60:6 62:19, 63:3 63:9, 63:12 63:13, 63:17 64:8, 64:10 65:3, 65:8 65:20, 68:6 68:13, 68:17 68:19, 68:20 69:1, 69:7 74:7, 75:23 77:4, 77:10 80:5, 80:14 81:18, 82:17 82:21, 82:23 83:16, 85:12 85:17, 86:1 86:8, 88:10 89:1, 90:11 90:20, 93:7 94:2, 96:5 99:12, 104:18 106:1, 106:8 106:10, 106:17 106:24, 119:13 119:21, 122:11 124:18, 125:21 144:23, 154:17 168:20, 169:5 201:5, 205:7 206:4, 206:23 207:24, 208:13 208:23, 209:23 211:12, 221:3 227:14, 231:25
E				
E-L-L-I-N-G-... 175:15 ear 242:22 243:11 earlier 39:19 39:20, 65:18 80:3, 97:23 100:3, 138:1 163:23, 164:19 200:4, 203:12 206:9, 219:12 223:10, 224:21 227:7, 228:14 231:18, 253:14 257:9, 304:24 308:1, 309:21 311:11, 326:19 earliest 103:4 328:6 early 39:4 39:14, 49:15 57:19, 102:12 104:12, 219:5 249:20, 263:1 313:2, 313:18 313:20 Earthworks 3:12 53:22 easier 95:14 254:25 easiest 34:24 38:16 easily 158:22 294:25, 309:7 east 3:15 205:18, 205:23 221:12, 305:17 327:13 Eastern 43:22 48:25, 176:15 easy 26:4 169:7 EC/R 14:23 economic 15:19 15:20, 19:13 44:6, 50:7 71:3, 78:18 78:22, 110:22 120:11, 120:17				

232:10, 232:10 233:4, 234:1 245:15, 247:24 248:13, 248:14 249:14, 251:1 251:4, 259:6 259:11, 273:10 275:10, 275:18 275:22, 276:2 276:4, 276:15 276:21, 280:17 280:19, 280:19 280:23, 281:9 285:10, 286:5 286:6, 286:11 286:18, 294:13 301:1, 302:7 303:3, 303:17 309:10, 309:13 313:3, 317:18 318:15, 318:22 319:13, 320:2 320:9, 320:10 emissions-ge... 111:12 emissions-re... 245:15, 301:1 emit 58:10 58:23, 58:24 59:1, 65:23 77:8, 81:2 103:12, 103:25 298:13 emits 103:25 216:15, 233:24 emitted 61:19 62:9, 64:24 77:21, 80:9 168:13, 232:7 232:8, 319:14 emitters 58:22 65:10, 65:11 98:7 emitting 52:1 69:1 EMNRD 232:24 emote 138:16 emotional 138:16 emphasis 143:20 199:5 emphasize 83:15 emphysema 244:17 employed 167:2 175:25, 185:25 186:1, 229:20 229:21, 240:5 240:7, 332:14 employee 287:25 employees 292:4	292:6 employment 110:23 employs 115:19 144:15 empowered 153:25 empowers 70:17 en 39:23, 40:18 160:13 Enchantment 148:24 encourage 27:13 78:13, 138:19 144:19, 282:5 313:2 encouraging 129:18 encroachment 222:11 endorse 111:25 ends 330:19 energy 7:2 7:10, 32:2 43:9, 44:17 56:14, 57:21 67:18, 67:21 123:9, 123:10 135:24, 137:16 137:23, 140:14 140:23, 141:4 141:24, 142:1 142:18, 231:22 284:23, 285:5 285:7, 285:9 285:10, 285:23 Energy's 67:22 enforceability 276:13 enforceable 44:18, 231:23 231:23, 233:11 259:8, 276:15 276:19 enforced 151:3 enforcement 17:3, 43:2 43:3, 48:16 76:25, 150:24 230:5, 230:9 294:23, 312:8 enforcing 313:5 engage 51:19 engaged 54:25 84:24, 85:2 85:15, 235:9 313:19 engagement 44:13, 231:11 232:13, 235:6 263:1	engaging 114:17 engine 14:19 128:21, 210:17 engineer 95:7 120:4, 128:17 128:20, 143:21 Engineering 43:11, 128:20 128:25 Engineers 56:13 engines 13:15 13:20, 14:7 14:21, 15:2 90:1, 90:8 90:9, 90:14 91:3, 91:6 91:8, 91:11 112:12, 122:1 England 142:6 English 70:12 enhance 110:12 enhanced 73:4 83:5 ensure 44:19 62:24, 70:9 78:4, 78:16 102:21, 111:16 112:22, 154:14 188:22, 189:12 189:17, 190:2 272:9, 287:13 312:10, 313:4 ensuring 48:21 entail 42:3 52:14 entails 249:5 entered 32:12 155:22, 310:2 enters 110:18 entire 24:11 52:10, 94:21 116:13, 153:9 154:2, 163:3 190:8, 209:22 225:19, 225:20 303:22 entities 123:9 234:16, 295:4 entitled 289:15 entries 22:15 enumerating 120:15 environment 2:18, 2:22 15:16, 27:20 28:24, 53:4 63:5, 73:23 73:24, 76:19 77:6, 77:11 77:14, 77:25 78:17, 78:21	80:2, 80:19 80:21, 81:4 81:15, 83:12 87:1, 89:6 114:4, 137:20 143:25, 146:24 148:9, 153:5 167:4, 176:2 186:2, 229:21 231:21, 232:12 234:5, 234:10 240:8, 242:11 263:14, 284:22 285:9, 285:20 287:15, 323:19 environmental 1:1, 2:4, 2:15 3:14, 3:21 4:6, 5:10 5:12, 7:20 7:21, 12:23 21:3, 29:6 29:13, 30:13 41:25, 43:14 44:1, 44:3 44:8, 49:1 49:8, 52:15 53:14, 54:11 54:21, 57:5 61:15, 61:22 70:4, 70:7 71:4, 71:18 72:2, 72:10 76:25, 78:15 78:20, 79:6 79:7, 79:10 79:11, 79:12 79:13, 79:14 80:18, 82:1 83:3, 85:9 92:11, 96:9 108:16, 109:17 112:18, 118:22 128:20, 137:14 144:2, 144:5 145:3, 145:4 145:6, 145:6 147:23, 176:6 176:16, 176:19 198:20, 230:14 233:12, 241:3 245:2, 284:21 291:19, 292:24 317:19, 332:2 332:9 environmentally 115:12 EPA 10:10, 12:7 12:9, 12:12 13:3, 13:5 13:6, 13:14	13:23, 14:5 14:14, 14:21 14:23, 15:7 15:13, 15:21 15:23, 16:5 16:9, 16:11 16:15, 17:2 17:3, 17:3 17:5, 17:7 17:9, 17:12 18:2, 18:5 18:15, 18:16 18:17, 18:18 19:9, 19:12 45:20, 45:22 46:6, 47:6 49:2, 49:7 52:16, 56:1 56:3, 60:19 65:4, 87:3 125:7, 177:23 178:9, 179:16 180:6, 188:19 189:10, 189:22 189:24, 190:3 190:4, 190:9 191:13, 191:16 193:14, 193:15 193:19, 194:1 194:15, 194:19 194:24, 197:8 197:10, 200:23 201:20, 203:11 203:16, 211:1 219:10, 224:17 242:8, 242:10 242:11, 244:19 244:25, 245:2 245:9, 245:13 245:22, 245:24 247:2, 247:5 247:13, 247:15 247:20, 249:25 250:2, 250:5 251:12, 251:17 257:4, 257:7 258:19, 259:25 286:17, 286:21 287:4, 292:16 300:9, 300:20 300:21, 303:20 304:2, 304:24 306:11, 306:11 306:15, 307:1 307:10, 307:15 307:18, 310:8 312:12, 312:13 312:15, 312:21 312:23, 313:12 313:19, 321:14 321:16
--	--	--	---	--

EPA's 65:4 178:14, 179:3 186:15, 187:15 187:17, 219:11 246:22, 247:18 249:19, 286:20 307:24, 313:16 EPA-435/R-93... 13:24 EPA-453/B-16... 12:8 EPA-453/R-94... 20:5 EPA-457/R-00... 13:15 EPA-HQ-OAR-0... 16:5 EPA-HQ-OAR-2... 16:9 EPA-HQ-OAR-2... 16:12 EPA-HQ-OAR-2... 14:22 EPA-HQ-OAR-2... 14:24 EPA-HQ-OAR-2... 15:14 EPA-HQ-OAR-2... 14:16 EPA-regulated 202:7 EPAs 46:4 equal 51:16 equipment 49:8 49:17, 52:10 62:4, 64:15 65:13, 82:13 82:15, 82:16 82:20, 91:14 96:5, 110:8 110:10, 112:13 127:5, 179:10 180:2, 186:11 188:21, 189:12 189:14, 195:13 233:3, 233:9 252:14 equipment's 179:15 equitable 70:19 equitably 70:21 equivalents 81:12 era 95:9 ERG 13:20, 14:8 14:9, 14:11 14:12, 15:2 15:6, 15:11 16:2, 16:6 16:17, 16:20 17:17, 17:18	17:20, 18:4 18:9, 18:11 19:11, 19:15 44:1, 44:5 49:4, 49:8 Eric 3:3, 30:18 35:15, 84:15 264:4, 315:16 Ernie 282:21 284:3, 287:17 287:18 error 25:25 107:8 escape 140:15 140:17 especially 54:8 70:10, 82:23 144:9, 151:2 157:24, 205:14 240:21, 251:12 302:17 ESQ 2:3, 2:11 2:16, 2:21 3:3, 3:3, 3:8 3:14, 3:17 3:22, 5:3, 5:6 5:11, 5:16 5:17, 5:17 6:3, 6:7, 6:8 6:8, 6:13 6:14, 6:20 7:4, 7:4, 7:5 7:10, 7:15 essence 42:4 102:24 essential 76:12 78:11 essentially 111:25, 136:10 234:21 establish 105:6 108:12, 272:4 320:6 established 45:21, 47:6 85:3, 89:18 103:22, 222:3 226:22, 227:1 245:6, 278:2 285:1, 306:1 306:1, 313:16 establishes 272:3, 303:21 establishing 46:15, 47:11 52:1, 272:2 estimate 43:24 66:11, 66:11 69:3, 87:15 210:3 estimated 49:25	59:2 estimates 19:5 19:17, 49:9 49:11, 50:11 56:2, 57:1 58:25, 59:17 59:18, 59:18 65:7, 92:15 98:9 estimations 65:9 et 65:2 ethane 207:11 207:18, 208:1 208:1, 208:12 208:16, 209:7 213:13, 213:15 213:22, 215:12 215:19, 215:20 217:4 ethical 148:11 148:12 Ethyne 205:6 Europe 140:22 141:5, 141:19 141:22, 142:5 evacuated 204:19, 206:9 evaluate 43:20 97:3, 97:25 121:14, 121:16 304:3, 306:17 315:20, 319:12 evaluated 117:24, 120:22 304:16 evaluates 180:4 evaluating 173:6, 301:11 303:21, 321:7 evaluation 11:6 129:8, 216:16 evaluations 121:3 evaporation 208:24 evening 284:8 296:14, 330:22 331:3 event 23:17 24:20, 25:18 25:19, 26:17 27:9, 40:23 165:22, 182:16 209:21, 237:13 279:24, 283:20 287:19 events 256:22 327:25 eventually 24:23	Evergreen 128:20 everybody 140:20, 155:17 everyone's 297:21 evidence 18:5 22:22, 24:14 63:2, 66:3 74:4, 164:12 212:9, 220:25 227:11, 269:11 270:21, 304:1 306:23 evidenced 45:11 evidentiary 22:24, 36:3 36:5, 36:6 evolving 144:5 exact 121:11 290:6 exactly 37:11 38:23, 128:4 254:8 Examination 8:23, 8:24 9:3, 9:4, 9:6 9:7, 9:10 9:11, 9:14 9:15, 9:17 9:18, 9:19 9:20, 9:21 9:24, 9:24 166:25, 172:17 175:21, 182:19 185:23, 192:17 198:14, 218:15 229:16, 237:15 239:25, 262:9 263:10, 266:12 280:2, 297:10 324:17, 326:23 examined 166:24 175:20, 185:22 198:9, 229:15 239:23, 266:11 297:8 example 24:7 24:24, 27:4 33:9, 34:4 34:6, 34:15 35:2, 36:18 40:16, 52:7 56:2, 65:1 80:9, 93:11 94:3, 118:5 120:23, 286:16 exceed 23:19 77:17, 105:3 107:4, 200:18 210:14, 210:24	299:14, 320:4 320:10, 320:12 exceedance 318:2 exceedances 73:1, 74:25 76:2, 77:19 105:19, 225:5 225:9, 225:17 227:12, 247:17 247:22, 300:24 319:17, 321:17 exceeded 105:8 208:19, 326:10 exceeding 41:20 47:15, 119:12 226:5, 246:5 287:1, 299:25 300:4, 302:1 308:23, 320:25 exceeds 219:15 excepted 332:15 exception 28:19 exceptions 80:20, 127:17 excess 46:25 48:19, 104:1 104:22, 248:16 249:9, 271:23 308:8, 314:9 317:24, 318:6 excited 166:4 excludes 93:21 excluding 161:21 excuse 25:13 39:10, 82:4 108:14, 174:2 184:14, 189:20 197:22, 197:23 201:1, 205:16 208:18, 238:20 247:3, 258:10 263:15, 298:19 298:21, 327:20 excused 227:17 238:24, 263:16 executed 99:7 102:18 executive 10:11 10:16, 44:16 49:5, 91:19 95:6, 146:19 231:19, 232:1 232:13, 284:22 exempt 81:11 exempted 51:11 81:1, 81:2 Exemption 292:4 exemptions 80:24, 81:5
--	--	---	--	---

292:7 exempts 52:2 exercise 36:24 120:12, 202:11 295:18 exercising 111:1 exhaust 208:25 exhibit 10:8 10:9, 10:10 10:12, 10:14 10:15, 10:16 10:17, 10:19 10:20, 10:22 10:23, 11:2 11:3, 11:4 11:5, 11:7 11:8, 11:10 11:11, 11:13 11:14, 11:15 11:17, 11:18 11:20, 11:22 11:23, 11:24 12:2, 12:3 12:4, 12:6 12:7, 12:9 12:12, 12:15 12:18, 12:20 12:23, 13:2 13:3, 13:5 13:6, 13:8 13:10, 13:13 13:14, 13:17 13:18, 13:20 13:21, 13:23 14:2, 14:5 14:8, 14:9 14:11, 14:12 14:14, 14:17 14:20, 14:23 15:2, 15:3 15:6, 15:7 15:9, 15:11 15:13, 15:15 15:19, 15:21 15:23, 16:2 16:3, 16:6 16:8, 16:10 16:13, 16:15 16:17, 16:18 16:20, 16:21 16:23, 17:2 17:3, 17:5 17:7, 17:9 17:12, 17:14 17:17, 17:18 17:20, 17:21 17:24, 18:2 18:4, 18:5 18:7, 18:8 18:9, 18:11	18:12, 18:14 18:15, 18:17 18:19, 18:21 18:22, 18:24 19:1, 19:2 19:3, 19:5 19:6, 19:8 19:9, 19:11 19:12, 19:14 19:15, 19:17 19:18, 19:20 19:21, 19:22 19:23, 19:24 20:2, 20:3 20:6, 20:9 20:10, 20:12 20:13, 20:14 20:17, 20:18 34:13, 34:13 34:15, 35:6 35:6, 35:12 35:13, 35:19 36:7, 37:11 37:19, 37:20 37:24, 159:23 161:10, 161:13 161:20, 162:8 162:24, 167:23 168:4, 176:24 177:5, 186:17 186:23, 199:3 211:21, 216:10 226:16, 230:20 231:2, 241:6 241:12, 241:14 249:25, 250:20 253:13, 253:18 254:2, 254:3 255:4, 258:3 258:11, 258:12 258:14, 267:16 267:19, 268:10 268:21, 268:24 268:25, 269:7 269:9, 269:11 270:16, 270:19 270:21, 270:25 296:13, 297:23 297:24, 309:20 310:2, 310:14 311:3, 315:19 316:1, 316:6 316:10, 316:12 319:7, 319:13 327:23 exhibits 10:5 10:7, 11:1 12:1, 13:1 14:1, 15:1 16:1, 17:1 18:1, 20:1	20:8, 20:16 22:16, 34:20 35:8, 37:12 38:1, 38:9 38:10, 38:19 39:2, 39:21 39:23, 39:24 40:3, 40:14 40:15, 40:17 40:19, 111:6 160:6, 160:7 160:8, 160:12 160:17, 160:21 160:24, 161:2 161:5, 161:6 161:8, 161:22 161:25, 162:4 162:12, 162:21 162:22, 163:10 163:16, 163:18 163:20, 164:5 164:8, 164:8 164:9, 164:11 164:11, 164:21 165:13, 165:19 165:20, 166:3 211:21, 211:23 211:24, 211:25 212:1, 212:4 212:7, 212:8 214:7, 231:13 268:5, 328:7 328:8, 330:8 exist 68:13 302:24 existing 14:23 44:21, 48:14 49:6, 92:9 92:14, 177:25 246:25, 247:20 285:11 exists 246:2 313:1 expand 316:22 expanded 55:11 expansion 42:10 91:10 expect 22:23 27:19, 126:13 155:14, 158:21 208:16, 217:3 268:3 expectation 330:1 expected 120:20 154:2, 178:20 178:20 expensive 87:18 126:23 experience 43:16, 44:2	44:6, 67:21 67:22, 75:17 107:21, 130:7 130:8, 221:5 266:21 experienced 76:1, 221:14 experiencing 63:7, 153:20 expert 33:21 37:4, 48:10 50:15, 50:24 58:12, 79:24 85:4, 87:15 91:4, 91:18 92:24, 112:12 159:2, 234:8 316:2 expertise 58:12 112:11, 233:18 experts 38:22 43:21, 136:5 144:16 Expires 332:22 explain 45:18 46:3, 57:18 58:5, 58:21 59:15, 59:20 64:7, 65:6 65:10, 65:21 66:5, 69:9 76:21, 77:5 77:18, 99:2 105:8, 123:15 254:4, 266:15 323:15 explained 273:17 explains 258:3 258:11 explanation 257:15, 321:22 explanations 49:13, 50:10 50:13 explanatory 258:21, 310:8 exploiting 141:19 exploration 125:18, 126:19 140:18 exponentially 276:1 exposure 67:16 244:10, 244:13 express 68:8 99:11 expressed 232:21, 292:1 expressly	277:16 extension 110:21, 246:1 extensive 47:22 50:9, 56:14 118:21, 119:23 202:20, 205:18 234:6, 234:18 234:23, 235:10 287:8 extent 34:3 35:17, 37:2 37:14, 98:24 217:2, 277:16 296:22 extra 238:5 238:5 extracted 116:20 extraction 142:1 extraordinary 111:21 extremely 54:6 82:23, 137:9 137:12, 137:13 137:16, 137:23 138:5, 138:8 221:13, 286:12
F				
face 127:3 139:7 facilities 12:10, 12:13 12:24, 52:1 55:20, 56:19 62:10, 63:10 64:25, 71:22 77:8, 77:16 81:2, 82:25 83:5, 92:12 94:5, 96:20 103:12, 103:15 103:20, 104:8 104:25, 108:10 108:10, 110:18 110:19, 124:8 124:9, 124:20 125:3, 125:8 125:17, 125:19 125:20, 125:21 125:22, 125:23 126:2, 126:6 126:12, 126:20 126:22, 167:13 260:8 facility 16:5 51:5, 51:20 76:16, 92:20				

94:20, 94:21 95:7, 96:18 103:25, 126:13 328:24 fact 17:2, 17:7 25:16, 25:18 33:15, 37:18 50:23, 75:22 89:21, 92:25 98:5, 99:4 111:23, 120:14 133:10, 140:15 144:19, 210:7 215:15, 215:17 215:22, 215:23 216:2, 276:17 287:25, 288:24 306:13, 309:14 factor 97:3 97:24, 215:19 272:2 factored 259:3 259:13 factors 14:5 24:8, 90:5 98:4, 98:11 300:7, 300:10 300:20, 300:21 300:25, 301:3 308:1, 308:6 317:2, 319:15 319:16, 321:12 321:14, 321:18 321:21 facts 72:5 77:24, 120:9 120:16, 304:4 failed 280:14 failing 189:6 309:12 fails 63:24 252:3 failure 52:18 65:8, 94:20 119:2 fair 88:9 94:11 fairly 88:21 106:21, 123:12 128:1, 158:22 196:4, 210:11 222:2, 222:4 227:11 faith 146:21 146:22, 147:2 147:5, 148:14 148:19 fall 195:17 210:8 falling 67:10 false 150:13	familiar 219:3 256:13, 257:2 familiarity 112:12 families 71:5 fantastic 243:9 far 28:8, 47:1 74:24, 114:17 159:7, 164:1 209:24, 225:15 243:16, 326:10 327:24, 328:15 Farmington 305:16 farther 75:14 209:13, 209:18 fashion 251:16 faulty 64:1 favor 291:23 Fe 2:13, 2:19 3:9, 3:15, 5:8 5:13, 5:19 7:12, 31:10 53:25, 74:13 84:21, 101:17 109:19 fear 50:16 feasibility 86:13 feasible 58:7 59:12, 62:11 69:10, 108:22 108:24, 108:25 feature 76:12 features 309:2 Feb 11:16 February 15:17 18:6 Fed 17:21 17:24, 18:6 federal 41:20 41:23, 42:7 44:5, 44:7 47:3, 48:14 49:2, 49:23 52:21, 53:1 55:12, 60:21 75:3, 75:12 87:3, 102:15 111:9, 112:7 120:23, 122:16 176:11, 178:6 178:12, 179:17 188:3, 230:10 232:4, 287:1 287:5, 287:7 321:11 federally 259:7 276:15, 276:19 feed 76:4 feedback 108:17	234:16 feel 36:17 100:13, 220:12 322:16 feels 313:22 feet 55:20 57:2, 67:14 83:5 Felicia 1:11 2:3, 21:2 Felicia.l.or... 2:3 fell 301:23 fenceline 97:6 98:15 FERC 117:21 118:17, 118:20 FERC-regulated 117:20, 118:25 fertilizer 142:4, 142:5 142:6 fewer 294:6 fiasco 294:20 field 17:15 43:21, 86:5 90:4, 90:16 147:14, 147:18 150:17, 322:22 Fifteenth 7:6 Fifth 14:5 fight 286:2 figure 199:18 206:16, 207:3 figured 164:1 figures 295:23 file 36:2 37:10, 37:23 38:9, 38:10 38:18 filed 22:20 32:19, 36:16 36:19, 36:21 39:1, 39:4 39:8, 39:10 45:12, 235:3 254:3 files 48:9 317:9 filing 54:25 55:5, 235:6 235:16 filings 55:6 final 11:12 11:20, 14:14 14:16, 14:17 15:13, 16:11 18:9, 54:19 127:15, 131:12 170:7, 225:18 332:17	finalize 62:12 finalized 226:3 finalizing 286:21 finally 59:20 74:16, 77:13 78:10, 83:15 86:2, 105:23 110:3, 112:3 118:13, 120:7 286:25 finance 292:1 financial 230:9 251:21 financially 59:12 find 21:8, 24:4 93:3, 150:10 150:20, 220:20 226:15, 254:22 267:19, 267:20 268:8, 282:6 292:11, 315:19 finding 317:15 findings 65:24 120:2, 247:12 finds 134:12 fine 33:24 100:14, 132:4 132:8, 134:14 197:13, 253:24 257:20, 291:13 296:15 firm 31:13 47:19, 49:1 50:8, 79:11 84:16, 84:17 109:19, 109:22 123:7 first 11:9 11:10, 22:12 24:22, 42:8 46:11, 51:10 55:18, 63:22 75:24, 76:8 80:24, 86:18 89:12, 90:7 101:12, 102:7 104:20, 110:1 110:5, 110:25 117:2, 124:23 131:19, 131:19 131:20, 132:15 135:6, 135:7 135:13, 136:22 137:4, 139:15 139:21, 143:11 146:7, 146:10 149:14, 149:14 149:15, 149:20 151:18, 152:23	153:11, 155:23 156:20, 158:16 159:21, 160:22 165:3, 166:23 175:19, 185:21 190:6, 198:8 198:11, 200:17 201:15, 214:22 214:22, 214:24 222:3, 224:22 229:14, 239:23 250:24, 257:13 257:17, 257:24 258:4, 258:9 266:10, 274:22 284:16, 286:19 290:21, 291:5 293:12, 293:15 307:1, 312:16 318:18, 318:20 319:4, 320:13 320:17, 321:2 328:25, 329:11 firsthand 57:14 Fisher 179:13 fit 89:3 126:20, 131:9 320:18 fits 144:25 159:14, 223:25 five 23:17 23:19, 64:17 67:1, 116:23 117:23, 123:8 128:15, 132:19 134:5, 135:10 137:2, 139:18 139:25, 143:8 146:8, 149:17 152:21, 232:18 251:25, 282:15 282:23, 283:21 284:14, 291:2 293:9, 300:9 300:20, 300:21 308:1, 309:5 319:15, 319:16 321:12, 321:14 321:18, 321:20 five-factor 308:5, 321:10 five-minute 132:18, 282:14 fix 195:23 fixed 96:23 fixes 189:6 fixing 154:16 flare 150:17 294:25 Flares 15:8 17:8
--	---	---	---	---

Volume 1
9/20/2021

EIB Ozone Hearing

GABRIEL 4:5 gain 153:14 gains 96:25 154:12 Gallagher 3:8 84:20 gaps 285:16 Garcia 2:8 21:23, 101:5 173:18, 173:19 184:7, 184:8 197:2, 197:3 197:6, 197:12 223:3, 223:4 238:13, 238:13 238:14, 261:22 261:23, 281:18 281:19, 326:2 326:3, 326:13 gas 1:4, 3:2 6:6, 6:18 6:19, 6:19 12:7, 12:10 12:13, 12:16 12:19, 12:21 12:23, 13:6 13:7, 13:9 13:24, 14:3 14:19, 15:9 15:10, 15:19 15:21, 15:22 15:23, 15:24 16:4, 16:9 16:11, 16:18 17:2, 17:7 17:9, 17:10 17:13, 17:21 17:22, 17:24 17:25, 18:2 18:2, 19:2 19:9, 20:4 20:4, 30:15 30:19, 31:10 41:11, 42:9 42:16, 44:19 47:7, 54:6 54:9, 55:2 55:20, 56:8 56:19, 57:1 57:2, 57:7 57:10, 57:13 58:10, 58:23 58:23, 59:5 59:22, 61:19 62:10, 63:10 63:15, 63:25 64:8, 64:25 65:5, 65:20 66:25, 67:14 70:13, 75:22 77:8, 77:15	77:20, 79:19 80:7, 80:10 80:15, 80:16 81:17, 81:18 82:21, 82:24 84:18, 84:23 84:24, 85:1 85:13, 98:20 99:19, 101:19 101:22, 103:4 103:6, 103:10 103:15, 109:6 109:23, 110:6 110:9, 110:11 110:14, 110:15 110:17, 110:18 110:20, 111:12 114:7, 114:8 114:8, 114:22 115:11, 116:1 116:3, 116:7 116:10, 116:13 116:23, 117:3 117:3, 117:4 117:5, 117:6 117:8, 117:12 117:14, 117:15 117:19, 117:21 118:1, 118:10 118:10, 118:15 119:1, 119:21 124:11, 124:18 125:25, 126:2 135:20, 135:22 138:2, 140:5 140:10, 141:4 141:8, 141:13 141:14, 141:16 141:18, 141:20 142:1, 142:4 142:8, 143:18 143:24, 144:3 144:10, 144:13 144:20, 144:21 145:5, 153:7 169:5, 178:23 201:4, 202:20 202:22, 204:12 205:4, 205:8 205:15, 205:18 206:23, 208:13 208:22, 209:2 209:8, 211:5 211:11, 213:17 216:6, 216:11 216:20, 217:3 221:1, 221:7 222:5, 222:5 227:13, 231:24 232:9, 232:24 233:4, 233:9	233:13, 233:24 257:13, 257:17 257:23, 258:4 258:8, 260:3 260:10, 260:14 262:12, 275:14 275:17, 275:18 275:21, 275:23 276:22, 284:24 285:3, 285:11 285:24, 286:4 286:5, 286:7 286:12, 286:18 298:12, 298:13 302:25, 303:4 303:11, 305:14 306:2, 308:13 309:10, 309:15 310:18, 310:22 314:11, 327:11 327:14 gas-based 94:23 Gas-Fired 14:18 gas-lift 110:12 gas-powered 62:3, 62:18 68:7, 68:17 68:21 gases 168:16 168:17, 169:21 266:22 gasoline 14:6 208:23 Gastelum 152:1 152:7 gates 116:3 gather 257:19 gathered 94:10 117:12 gathering 17:5 110:15, 116:21 117:7, 118:9 gauges 59:23 gauging 60:2 60:4, 93:13 GCA 31:10 109:24, 110:1 110:4, 110:5 110:5, 110:10 110:19, 110:25 111:13, 111:17 111:24, 112:4 112:6, 112:8 112:18, 112:21 113:3, 182:6 192:4 GCA's 110:22 110:22 GCI 113:3 gear 269:21 general 2:12	2:12, 2:17 2:17, 2:21 2:22, 12:15 12:16, 12:18 12:18, 16:23 16:24, 27:23 89:5, 96:8 110:24, 111:13 111:17, 119:4 130:12, 178:2 178:9, 183:14 201:16, 211:17 223:18, 302:21 generally 24:4 25:3, 80:18 81:15, 89:5 127:20, 133:20 157:10, 168:20 188:5, 202:16 221:4, 251:23 283:10, 301:10 325:15 generate 50:17 generated 48:5 209:12 generation 78:20, 154:3 generations 154:5, 293:24 gentleman 143:16 geographic 245:17, 298:2 299:10, 303:20 320:6 geographical 309:2 geography 245:16, 301:2 Geophysics 88:11 Geosyntec 129:6 getting 74:8 74:17, 78:5 111:15, 238:5 GHGRP 19:6 giant 91:10 girl 150:20 150:21 give 27:11 33:13, 33:14 64:4, 89:7 105:8, 116:8 117:17, 128:11 129:24, 159:13 161:16, 199:11 210:3, 246:20 267:24, 295:6 296:24 given 27:9 48:19, 76:6	98:25, 121:1 128:5, 133:25 148:7, 148:10 187:10, 203:23 216:18, 276:25 288:5, 289:21 298:18, 307:12 gives 251:25 giving 33:19 34:7, 74:20 127:12, 322:16 glad 269:4 glitch 37:21 global 153:20 286:10 globally 225:20 go 21:11, 27:3 27:24, 35:8 35:17, 36:24 42:19, 71:23 75:14, 82:24 100:13, 132:4 132:19, 134:17 141:7, 141:24 142:2, 147:18 152:1, 174:20 180:13, 185:4 185:8, 190:14 195:21, 197:11 198:13, 199:21 199:24, 200:12 200:21, 201:15 201:15, 213:9 215:6, 219:11 224:7, 226:15 229:9, 239:4 252:19, 259:24 264:1, 265:16 271:12, 271:13 271:16, 272:21 274:19, 290:13 292:11, 292:16 296:23, 298:9 314:20, 316:16 317:15, 317:16 328:24, 329:16 331:2 goal 41:24 62:13, 112:20 127:11, 284:24 goals 18:15 107:18, 178:13 313:24 God 295:6 God's 148:2 148:6, 293:21 God-given 293:21 goes 219:13 275:4 going 28:2
--	---	--	---	---

28:6, 28:7 28:18, 36:10 36:11, 36:14 37:9, 37:20 39:12, 39:15 40:16, 40:25 69:20, 84:3 86:15, 87:25 89:9, 94:8 99:6, 99:21 105:6, 106:8 114:18, 123:24 131:16, 133:3 133:6, 133:9 133:11, 133:14 134:5, 134:6 134:16, 135:19 137:16, 138:7 138:12, 141:5 141:12, 141:13 142:17, 142:19 145:2, 148:4 154:8, 155:4 157:2, 157:11 158:17, 159:3 161:23, 163:25 164:3, 174:2 174:9, 180:13 182:15, 192:13 196:13, 199:18 202:24, 203:19 207:1, 207:10 210:12, 212:4 214:9, 218:11 219:8, 226:12 227:13, 227:24 228:4, 237:11 239:2, 239:9 241:22, 253:17 254:6, 254:11 255:2, 255:3 261:5, 263:19 264:5, 265:10 266:1, 271:1 273:13, 273:21 275:9, 279:22 290:3, 297:1 297:17, 302:18 315:17, 316:6 324:12, 328:13 328:16 GONZALES 5:17 good 21:1 21:12, 21:13 21:17, 21:23 21:25, 22:1 22:7, 22:8 28:23, 29:4 29:11, 29:17 30:4, 30:10 30:14, 30:17	31:3, 31:8 31:16, 31:18 31:24, 32:5 32:7, 32:10 34:9, 53:12 61:10, 74:2 75:8, 79:3 84:14, 87:6 91:16, 93:18 94:2, 94:4 94:24, 98:21 107:16, 109:18 114:2, 123:5 125:1, 146:13 146:17, 146:18 148:25, 153:2 164:5, 196:23 196:24, 210:3 240:3, 243:17 271:22, 281:3 284:19, 295:4 296:9, 312:20 331:2 Goodlow 134:3 138:24, 138:25 139:1 Goodnight 7:2 123:10 Gorilla 50:8 gosh 265:2 gotten 54:13 gov.opf/dock... 10:6 governing 178:7 government 42:7 52:21, 55:12 60:21, 325:7 Governor 44:15 54:13, 55:16 62:13, 63:16 75:4, 151:7 231:19, 247:5 247:8 Governor's 44:24, 49:5 54:17, 61:1 GP-5 12:15 12:17, 13:22 GP-5A 12:18 12:19, 13:22 GRAB 205:10 graduate 266:18 graduated 291:17 Grand 204:24 205:11 grandchildren 140:13 grant 230:10 granted 45:7 grants 240:20	graph 210:4 grateful 99:20 123:19, 124:1 GRCA 205:11 great 113:8 134:25, 135:23 140:6, 140:8 204:24, 205:10 205:10, 271:14 greater 48:22 56:1, 74:5 302:8, 308:11 greatest 78:17 244:9 greatly 69:11 86:8, 123:24 green 57:15 301:22 Greenberg 7:5 32:1, 123:7 greenhouse 17:21, 17:24 54:6, 65:5 80:16, 284:24 285:3, 286:5 286:7, 286:12 Greg 16:3, 16:8 16:10, 32:1 129:2 GREGORY 7:4 grid 206:11 250:15, 277:1 Grisham 54:13 75:5, 231:19 Grisham's 44:15 62:13 gross 292:4 292:5 ground 54:5 60:15, 60:22 63:6, 63:19 75:10, 80:12 87:6, 106:5 201:25, 216:25 groundwork 79:21 group 7:3 31:23, 32:4 43:23, 49:1 85:3, 114:11 123:1, 123:8 123:21, 124:4 124:8, 124:19 124:22, 124:24 125:3, 125:6 126:3, 127:3 127:15, 137:18 groups 85:9 92:11, 92:22 96:9, 240:19 growing 154:3	Growth 275:16 Guadalupe 5:7 203:2 Guardians 5:2 5:3, 5:7, 30:3 30:7, 73:13 73:21, 74:9 74:12, 75:19 171:5 guarding 33:22 guess 39:20 163:4, 184:21 220:6, 258:7 270:16, 302:4 guessing 220:13 guidance 12:24 12:25, 18:15 105:11, 219:11 247:18, 307:25 321:14, 322:14 Guideline 14:2 guidelines 12:7 19:12, 200:23 250:5 Gutierrez 6:20 8:13, 31:17 31:18, 31:20 113:13, 113:15 113:19, 113:22 113:25, 114:1 114:2, 114:5 171:23, 171:24 182:8, 182:9 192:6, 192:7 218:1, 218:2 237:3, 237:4 260:24, 260:25 279:15, 279:16 282:25, 283:8 324:6, 324:7 guys 291:9 H half 57:3 232:17, 291:9 327:6 hand 36:9, 91:1 128:9, 135:2 139:10, 146:3 149:10, 152:11 166:10, 175:9 185:14, 198:6 215:2, 229:6 239:16, 265:24 284:10, 290:21 293:6, 313:7 handful 127:17 268:5 handier 268:7 handle 111:15	handling 186:13 handy 35:9 Hang 228:17 happen 99:13 202:6, 220:4 happening 155:10, 201:23 210:10, 216:25 263:2, 271:13 happens 140:17 200:1 happy 139:1 155:12, 157:8 hard 44:9 69:13, 275:1 282:7, 289:7 289:8, 293:16 325:24 hard-working 292:21 harder 77:22 222:13, 222:14 hardships 153:17 harm 137:20 harmed 244:6 harmful 53:3 54:5, 80:8 80:13, 82:17 82:21, 83:16 242:10 HARRIS 6:14 hasten 62:17 hatch 60:1 60:3, 60:3 60:5, 82:7 82:7 hate 164:16 Hawthorne 134:4 142:21, 142:22 226:20 hazardous 13:17 16:13, 20:4 56:17, 66:22 haze 18:15 121:6, 259:1 259:5, 259:7 259:12, 259:24 260:4 he'll 264:20 head 196:12 238:14, 238:21 261:23, 261:25 269:21, 281:19 headlines 50:17 headquartered 74:12 health 15:15 43:14, 52:15 53:4, 54:8 56:12, 56:15
--	---	---	--	---

Volume 1
9/20/2021

EIB Ozone Hearing

56:19, 56:21	293:3, 293:5	70:23, 71:8	164:25, 165:8	213:2, 213:5
60:16, 60:24	296:9, 298:8	72:16, 73:12	165:10, 165:18	213:7, 213:9
61:23, 63:4	heard 65:17	73:16, 73:18	166:6, 166:9	213:24, 214:1
67:13, 67:16	84:18, 86:24	78:24, 79:2	166:13, 166:16	214:3, 214:5
70:10, 73:24	87:14, 88:22	79:4, 79:25	170:13, 170:20	214:9, 214:18
74:11, 74:19	89:13, 92:21	84:2, 84:9	170:21, 171:2	214:21, 215:1
75:16, 78:18	96:6, 96:22	84:13, 84:14	171:6, 171:7	215:5, 217:8
78:21, 80:8	102:9, 106:6	84:19, 85:7	171:12, 171:13	217:10, 217:15
80:13, 86:20	119:8, 128:9	85:19, 97:8	171:15, 171:17	217:17, 217:20
94:23, 146:24	148:1, 164:19	97:12, 97:16	171:18, 171:20	217:23, 218:1
148:9, 148:15	220:25, 222:12	97:17, 97:19	171:22, 171:24	218:3, 218:5
151:19, 153:14	222:15, 224:19	97:21, 98:17	172:1, 172:3	218:8, 218:10
177:19, 202:5	224:20, 227:6	99:17, 99:22	172:5, 172:9	218:16, 218:18
202:12, 232:23	276:21, 277:17	99:25, 101:10	172:11, 172:15	219:20, 219:22
242:11, 244:3	292:18, 328:19	101:14, 106:18	172:18, 172:21	219:25, 220:2
244:14, 287:3	hearing 1:10	107:10, 107:12	172:24, 173:3	222:23, 223:2
287:14, 293:23	1:11, 2:2	107:13, 107:16	173:17, 173:20	223:5, 224:4
health-based	21:1, 21:2	107:19, 109:7	173:24, 174:7	225:6, 226:7
243:25, 244:3	21:3, 21:6	109:9, 109:13	174:10, 174:15	226:20, 227:6
287:2	21:14, 21:17	109:17, 111:22	174:25, 175:3	227:16, 227:19
healthcare	21:20, 22:1	111:23, 112:3	175:5, 175:7	227:23, 228:3
294:18	22:8, 22:22	113:4, 113:11	175:12, 175:16	228:8, 228:12
healthy 56:14	22:24, 23:5	113:15, 113:18	175:23, 180:12	228:19, 228:24
71:4, 78:12	23:8, 23:12	113:20, 113:24	180:15, 180:16	229:4, 229:5
78:23	23:23, 25:12	114:3, 114:10	180:19, 180:21	229:9, 235:19
hear 22:2, 24:5	25:14, 25:22	115:5, 115:9	180:23, 180:24	235:22, 235:24
24:9, 24:19	27:2, 27:19	122:25, 123:5	181:1, 181:3	236:1, 236:3
24:21, 24:22	27:25, 28:6	129:16, 129:22	181:6, 181:9	236:5, 236:7
25:2, 30:15	28:22, 29:2	131:1, 131:25	182:1, 182:3	236:9, 236:11
32:18, 46:21	29:4, 29:8	133:1, 134:25	182:4, 182:7	236:14, 236:17
47:4, 56:11	29:10, 29:11	135:5, 135:10	182:10, 182:13	236:20, 236:23
57:8, 64:5	29:15, 29:17	136:12, 136:18	182:20, 182:22	237:1, 237:3
64:12, 65:14	29:22, 30:2	136:21, 137:1	182:24, 183:23	237:5, 237:7
66:1, 67:4	30:4, 30:8	138:23, 139:9	184:2, 184:5	237:10, 237:16
68:22, 69:5	30:11, 30:14	139:13, 139:18	184:9, 184:13	237:18, 237:20
74:1, 74:21	30:16, 30:17	142:12, 142:20	184:17, 184:19	237:23, 237:24
75:8, 78:1	30:22, 30:24	143:1, 143:4	185:6, 185:9	238:2, 238:12
86:16, 86:21	31:2, 31:3	143:8, 145:9	185:13, 185:18	238:15, 238:18
89:23, 90:25	31:6, 31:8	145:23, 146:2	190:13, 190:15	238:22, 239:1
91:17, 91:22	31:16, 31:18	146:6, 146:14	190:16, 190:19	239:3, 239:10
92:10, 92:23	31:22, 31:25	149:1, 149:3	190:21, 190:24	239:19, 240:2
93:24, 95:5	32:5, 32:8	149:9, 149:13	191:1, 191:4	240:7, 242:17
95:10, 97:20	32:10, 33:5	149:17, 151:24	191:8, 191:20	242:19, 242:25
99:13, 104:17	33:7, 33:18	152:10, 152:14	191:21, 191:23	243:5, 243:9
105:20, 111:24	33:25, 34:9	152:17, 152:20	192:1, 192:3	243:14, 253:6
118:6, 120:1	34:11, 34:17	154:19, 155:13	192:5, 192:8	253:10, 253:12
121:22, 123:12	34:23, 35:1	156:8, 156:11	192:11, 192:18	253:20, 253:25
134:23, 134:25	35:14, 35:15	157:14, 157:18	193:3, 193:9	254:1, 254:9
136:15, 136:16	36:2, 36:9	158:9, 159:7	193:12, 194:5	255:9, 255:14
139:5, 139:6	36:13, 37:1	159:18, 159:22	195:7, 195:10	255:16, 255:20
142:24, 142:25	37:6, 37:8	159:24, 160:1	196:4, 197:1	255:21, 256:1
149:7, 149:8	38:2, 38:8	160:5, 160:16	197:15, 197:19	256:5, 256:8
149:9, 152:7	38:14, 38:23	161:4, 161:8	197:24, 198:10	256:9, 260:19
152:8, 152:9	39:6, 39:17	161:15, 161:23	199:10, 199:14	260:22, 260:24
163:9, 174:4	39:18, 40:10	162:3, 162:6	199:24, 200:4	261:1, 261:3
184:18, 197:4	41:8, 53:7	162:9, 162:13	200:9, 211:20	261:10, 261:12
226:25, 264:14	53:12, 53:20	162:16, 162:18	212:2, 212:11	261:16, 261:19
264:25, 265:1	61:4, 61:7	162:25, 163:7	212:12, 212:14	261:21, 261:24
265:1, 269:22	61:11, 69:13	163:10, 163:12	212:15, 212:17	262:3, 262:7
269:24, 284:5	69:15, 69:18	163:22, 164:2	212:19, 212:21	263:4, 263:6
290:14, 290:16	69:23, 70:6	164:13, 164:15	212:23, 212:25	263:8, 263:11

263:17, 263:21	315:15, 315:16	Hernandez 71:9	181:7, 181:8	141:13, 147:11
263:23, 264:3	316:4, 316:16	71:14	191:7, 191:8	148:21, 148:24
264:7, 264:10	323:3, 323:5	Hi 29:24	191:11, 191:19	151:14
264:13, 264:15	323:8, 323:23	high 59:17	191:21, 192:21	homes 55:21
264:16, 264:17	323:25, 324:2	68:16, 94:13	213:6, 213:7	62:16, 64:22
264:22, 264:23	324:3, 324:6	141:12, 141:16	213:11, 213:25	66:20, 67:8
265:2, 265:6	324:8, 324:10	142:8, 177:18	214:1, 214:3	67:20, 83:7
265:9, 265:12	324:18, 324:20	189:14, 201:5	214:8, 216:4	116:4, 147:6
265:18, 265:23	324:22, 325:1	201:11, 202:6	217:8, 217:11	honest 140:24
266:3, 266:6	325:4, 325:14	204:21, 205:20	236:18, 236:19	292:21, 292:22
267:15, 267:18	326:1, 326:3	205:22, 206:1	256:6, 256:7	Honestly 217:5
267:24, 268:2	326:15, 326:17	206:4, 206:5	264:4, 264:4	Honker 2:7
268:13, 268:16	326:21, 327:19	206:12, 211:12	264:10, 268:23	21:23, 21:25
268:20, 268:23	328:17, 329:6	211:15, 215:22	269:1, 269:2	173:21, 173:21
268:25, 269:3	329:9, 329:15	216:14, 223:14	279:9, 279:10	173:23, 184:10
269:6, 269:13	329:19, 330:5	244:12, 250:1	315:15, 315:16	184:11, 197:16
269:17, 269:18	330:12, 330:17	281:8	315:17, 316:9	197:17, 223:6
270:15, 270:18	330:21, 332:4	high-time	316:18, 323:3	223:7, 224:1
270:25, 271:5	332:8	223:14	323:6, 329:7	224:4, 238:16
271:9, 271:12	hearings 31:21	higher 48:2	329:9, 329:18	238:17, 262:1
273:14, 273:20	42:24, 291:20	64:25, 65:4	329:24, 330:16	262:2, 281:21
273:23, 274:12	heat 141:13	87:8, 92:25	330:20	281:22, 326:15
274:17, 274:19	141:14	118:3, 142:11	Hiser's 192:20	326:16
277:6, 277:8	heater 116:4	205:15, 205:16	269:4	hope 74:15
277:15, 278:6	Heaters 16:14	209:4, 215:11	Hispanic 83:17	124:1, 145:22
278:9, 278:15	16:17, 18:18	215:16, 253:2	historic 70:17	152:16, 199:22
278:17, 278:19	19:11	highest 138:1	93:1, 96:12	323:9
278:20, 278:22	Heather 16:3	141:9, 159:9	98:10	hopefully 97:14
278:25, 279:1	16:8, 16:10	178:1, 190:7	Historical	129:14, 328:25
279:3, 279:5	heating 116:4	246:8, 292:10	203:3	hoping 22:24
279:6, 279:9	142:18	292:12	historically	268:7, 277:20
279:10, 279:11	heavily 58:19	highlight 75:20	77:1, 77:4	horsepower 91:8
279:12, 279:13	125:5	90:4, 121:21	96:24, 97:1	91:9
279:15, 279:17	heavy 327:14	highlights	historically...	hospitals 119:4
279:19, 279:22	held 198:20	210:16	70:17	host 26:25
280:3, 280:6	232:12, 232:19	highly 54:25	hit 24:23	27:1
280:7, 280:10	234:10, 263:2	113:1, 118:16	Hobbs 183:9	hosted 232:24
280:11, 281:13	Hello 149:23	190:7, 287:14	183:18, 292:11	hot 216:7
281:16, 281:18	291:14	304:22	292:17, 305:6	hotspot 60:16
281:20, 281:23	help 43:23	Hilcorp 57:21	327:4	hour 25:4, 84:3
282:3, 282:12	66:23, 68:18	Hill 56:11	Hogan 6:21	117:16, 117:17
283:4, 283:13	85:17, 111:2	56:11, 56:14	31:20, 114:5	179:3, 207:4
283:16, 284:7	112:22, 116:12	Hillary 66:1	hold 69:23	224:16, 227:25
284:13, 284:19	138:20, 144:12	hinder 127:1	97:12, 167:18	327:25
287:16, 287:22	156:7, 167:13	136:2	167:19, 176:14	hourly 188:9
288:7, 288:14	201:10, 211:14	Hiser 3:3, 3:4	214:11, 214:21	188:9, 190:4
288:20, 289:11	215:7, 245:2	8:9, 9:6, 9:11	214:21, 228:15	207:5
289:19, 289:23	286:1	9:19, 30:17	240:25	hours 159:10
290:16, 290:20	helped 58:13	30:18, 35:15	Holderman 108:2	207:25, 209:5
290:24, 291:2	67:23	35:16, 36:10	108:5, 108:7	210:6
291:11, 293:1	helpful 24:5	36:11, 37:1	108:12	houses 142:19
293:5, 293:9	36:21, 164:17	38:3, 38:8	Holderman's	Houston 6:4
295:9, 295:20	165:4, 226:10	38:18, 39:5	108:21	https:www.co...
296:8, 296:19	254:23, 255:8	84:10, 84:11	holding 232:22	13:11
296:20, 297:3	274:13	84:12, 84:13	holds 198:16	Hub 141:9
297:5, 298:7	helping 67:10	84:16, 84:16	Hollenberg	huge 56:6
298:11, 311:2	helps 56:24	97:8, 97:10	19:19, 19:20	144:8
314:15, 314:18	57:6, 145:1	97:14, 98:1	43:2, 48:15	Hull 66:1, 66:2
314:23, 314:25	156:22, 206:18	98:3, 98:4	Holmstead 6:7	66:5, 66:13
315:2, 315:6	328:8	100:1, 102:4	31:7	66:18, 69:2
315:9, 315:12	Henry 141:9	172:13, 172:14	home 57:12	Hull's 66:9

human 80:8 80:10, 80:13 150:10, 151:20 168:22, 168:25 202:4 humanity 148:18 humans 56:23 hundred 124:15 148:14 hundreds 147:2 169:20 hydrated 152:17 hydraulic 124:12 hydrocarbon 93:17, 127:6 128:18 hydrocarbons 12:21, 93:22 126:16 hydrogen 266:23 hydrologic 82:16 hydroxyl 215:18	254:13, 272:12 272:18, 328:7 identifying 76:11, 115:1 204:9, 233:9 277:12 identity 148:24 idle 144:20 ignore 309:14 Il 128:16 Illinois 266:20 illustrate 117:9, 202:4 illustrates 202:14 illustration 304:15 imagine 156:13 164:20, 165:18 194:1 immediate 294:1 immediately 78:1, 268:8 immoral 148:5 impact 43:20 48:22, 87:24 88:4, 95:25 119:24, 121:14 202:4, 216:18 220:15, 221:18 232:22, 232:25 291:25, 310:23 318:9, 318:16 impacted 54:9 123:14 impactful 262:20 impacts 10:19 16:4, 16:8 16:11, 52:12 52:15, 56:15 56:20, 56:22 57:1, 57:5 57:6, 57:9 57:13, 67:16 72:6, 72:9 72:12, 76:4 104:25, 153:23 177:19, 213:17 232:23, 272:14 274:25, 275:6 276:22, 281:9 288:15, 291:25 298:16, 310:22 implement 95:15 126:24, 151:12 201:20, 285:3 287:5, 312:11 implementation 43:25, 50:1 240:17, 256:14	256:21, 311:17 312:7, 322:19 implementations 252:8 implemented 102:23, 247:16 247:21, 275:11 276:12, 285:5 implementing 67:22, 102:8 313:5 implications 60:15, 60:17 100:21, 101:2 implies 101:18 210:9 importance 71:21, 75:24 83:21, 83:22 113:8, 138:4 276:24 important 24:18 25:18, 48:12 51:2, 60:12 60:13, 61:13 66:18, 69:12 75:20, 79:9 82:23, 83:15 83:24, 85:13 87:23, 89:2 90:5, 90:13 90:18, 91:9 102:7, 112:15 114:17, 115:18 116:15, 123:13 123:15, 124:5 126:19, 127:2 128:6, 137:9 137:12, 137:16 137:23, 140:6 209:21, 215:20 272:11, 272:22 273:8, 275:16 276:8, 276:20 286:3, 310:10 importantly 47:8, 53:2 66:23, 124:16 impose 135:19 imposed 42:5 improperly 65:9 improve 51:19 71:1, 74:5 85:16, 109:5 144:22, 144:23 145:4, 323:2 improved 294:5 improvement 1:1 2:4, 21:3 70:7, 78:15 109:17, 137:14	145:6, 240:19 291:20, 292:25 332:2, 332:9 improvements 62:8, 62:12 62:15, 294:8 Improving 13:7 15:22 impurities 118:10 in-station 180:3 inaccurately 59:17 inadequacies 273:25 inadvertent 99:8 inappropriate 35:24, 277:4 311:25 inaudible 242:18 inception 79:16 85:2, 104:6 inclined 33:2 33:12 include 49:13 56:22, 59:6 62:15, 83:6 102:16, 105:12 169:2, 181:16 244:14, 252:5 260:9, 287:7 298:4, 300:25 308:6, 309:8 309:12, 321:19 321:25 included 51:22 62:4, 89:15 170:8, 176:18 223:23, 230:17 233:16, 235:2 241:3, 249:24 258:17, 258:25 273:12, 277:12 295:2, 298:1 307:12, 308:3 310:5, 310:17 310:20 includes 46:9 55:11, 81:5 94:4, 101:22 178:1, 178:2 179:5, 300:11 305:8, 306:21 306:22, 310:14 including 22:14 41:17, 43:19 46:5, 55:4 56:16, 60:4	64:17, 65:15 66:22, 66:25 67:2, 75:13 75:19, 75:22 85:8, 108:10 108:16, 110:23 115:16, 118:21 120:10, 127:4 202:23, 226:17 230:6, 233:6 233:14, 234:19 240:17, 244:6 244:20, 248:19 252:11, 285:5 299:16, 300:23 301:9, 303:9 303:13, 307:4 310:22, 314:11 319:16 inclusion 47:13 304:6, 307:23 income 147:10 292:4 inconsistencies 276:4 incontrovert... 63:19 INCORPORATED 7:21 incorrect 298:25 increase 62:18 66:14, 67:7 67:19, 70:19 124:25, 153:22 202:22, 271:15 increased 56:19 56:22, 63:7 64:21, 66:19 70:18, 222:7 244:16 increases 19:17 68:10, 203:22 244:12 increasing 76:3 76:4 incredibly 44:9 142:10 incremental 253:1 incurred 86:2 indebted 99:24 independence 135:25 independent 5:15, 30:25 51:3, 51:15 100:1, 101:17 101:19, 233:14 index 179:7 indicate 65:18
I				
I-S-A-I-A-S-... 152:19 i-to-pentane 208:23, 209:1 ICE 14:8, 14:9 ICF 15:19 idea 220:8 271:22 idealized 207:20, 210:8 210:8 ideally 25:21 228:8, 329:21 329:21 identical 244:22 identifiable 309:7 identified 39:19, 39:24 77:7, 106:14 116:18, 116:19 127:3, 160:18 161:21, 163:15 163:20, 181:15 266:15, 278:2 303:16 identifies 156:2, 254:3 254:5 identify 23:12 34:20, 40:23 155:23, 204:14 213:17, 233:3				

106:21, 133:10 201:3, 204:12 211:10, 218:13 indicated 168:17, 219:5 233:21, 277:1 323:13 indicates 59:3 65:12, 156:5 226:4, 247:6 252:22, 308:7 indicating 56:18, 132:16 154:20, 208:5 209:2, 209:23 indication 83:21, 209:7 indicator 208:13 indigenous 57:3 individual 233:12 individualized 121:16 individually 39:24 individuals 115:13, 115:19 induce 50:16 industrial 14:7 16:14, 116:1 222:6 industries 154:1 industry 12:8 14:19, 16:19 17:13, 42:2 42:10, 44:3 46:21, 48:17 48:20, 52:12 52:16, 52:23 52:25, 61:21 75:22, 77:20 78:1, 85:13 87:14, 88:2 88:18, 91:18 92:10, 93:25 94:1, 94:13 94:14, 95:6 95:11, 95:18 95:22, 95:24 96:3, 96:12 96:13, 98:14 98:20, 103:14 104:5, 109:3 109:6, 110:6 110:21, 116:7 135:20, 136:2 136:6, 136:9 140:6, 144:6 144:12, 144:20	144:22, 169:5 169:5, 221:2 232:24, 233:14 233:16, 252:15 285:11, 285:17 285:22, 286:4 286:7, 286:18 287:9 industry's 81:11, 88:20 89:1 ineptness 271:17 inequities 76:24 inert 204:19 inextricably 63:14 infeasibility 122:7 infeasible 85:21, 126:23 inflammation 244:15 inflating 280:19 influence 302:25, 307:19 inform 50:15 information 13:8, 13:15 20:5, 23:5 26:2, 26:5 45:14, 49:6 73:4, 76:20 76:21, 145:25 179:5, 185:5 195:4, 196:19 201:16, 210:15 246:2, 247:6 272:9, 277:11 283:23, 297:21 301:4, 303:22 310:9 informational 233:23 infrastructure 312:9 infrastructures 110:15 infrequently 118:8 INGAA 14:17 Ingam 282:21 284:4, 290:9 290:10 inhabitants 78:19 inherited 91:21 initial 10:22 55:4, 95:19	107:24, 126:18 232:15, 232:18 232:20, 319:7 initiate 46:19 initiative 10:12, 10:22 45:25, 75:13 234:7, 234:11 239:7, 249:1 249:1, 249:5 249:12, 256:18 257:7, 298:2 310:21, 317:3 319:6, 319:8 319:11 injected 126:10 injection 124:7 125:8, 126:11 injustice 76:25 innovation 63:1 145:3 input 45:8 45:10, 107:20 111:20, 234:20 inputs 272:25 inserting 60:1 inside 179:21 insightful 307:17 insights 112:24 inspecting 154:16 inspection 65:22, 96:17 151:2, 294:23 inspections 55:19, 55:25 56:3, 56:5 62:4, 62:16 64:19, 64:21 65:12, 65:16 66:10, 66:19 66:20, 67:7 67:19, 68:18 96:17, 96:18 294:21 install 17:8 68:23, 92:24 94:6 installation 62:21, 82:12 installed 82:11 130:20 installer 91:5 instance 51:20 instances 120:25, 123:16 125:17, 126:22 127:13 Institute 77:6 233:20, 266:20	Institutional 16:14 instrument 18:2 188:23, 189:6 instruments 178:13, 189:1 189:2, 189:3 189:9, 189:18 206:11, 223:16 224:14 insufficient 246:1, 277:14 insulation 207:20, 207:21 integrate 91:19 92:4 integrated 10:10, 101:21 integration 91:25 intend 128:2 intended 50:15 62:24, 116:12 119:17, 257:24 258:15, 258:18 287:24, 310:6 313:2 intending 260:3 intends 310:24 intensities 188:23 intensity 207:4 intensive 122:19 intent 32:12 32:20, 47:2 47:17, 103:23 251:18, 309:13 313:22, 329:12 intention 134:22 interact 206:25 interactions 167:21, 194:24 interagency 285:1 interconnected 277:19 interconnect... 143:16 interest 54:2 79:10, 140:6 232:22, 332:17 interested 206:21 interesting 93:4, 199:23 224:25, 238:4 271:20, 281:5 interests 52:25 53:2, 70:21	294:1, 295:8 Interfaith 146:20, 153:3 interfere 27:17 intergovernm... 148:17 interject 163:25 intermittent 65:11 Intermountain 4:12 Internal 13:14 14:6, 14:21 International 15:19 interpretation 322:4, 322:8 interpreted 99:7 interrelated 174:22 interrupt 142:13, 164:16 242:20, 273:15 interrupting 258:11 interstate 14:19, 118:14 118:15, 312:19 introduce 21:11 42:19, 69:24 110:1, 174:18 198:4, 198:15 introduction 114:19 inventories 49:9, 49:11 252:12, 272:24 272:24, 273:1 280:20, 280:21 inventory 15:10 15:10, 19:15 65:1, 65:9 273:2, 273:4 273:8, 275:10 276:6, 280:18 280:22, 281:7 investment 127:1 invitation 26:18 invitations 157:25 invite 34:16 40:17, 40:25 84:6, 129:17 131:7, 163:23 170:15 invited 24:19 31:12, 34:2
--	---	---	--	--

41:5, 131:11 132:3 inviting 100:20 100:22, 131:21 145:20 involved 58:19 130:10, 144:2 157:23, 266:21 267:2 involvement 45:4 involves 118:20 involving 111:4 Iowa 230:15 IPA's 104:19 iPad 139:8 IPANM 9:22 20:16, 40:14 50:3, 51:8 51:18, 101:9 101:23, 161:8 165:1, 165:19 211:23, 254:16 263:25, 269:9 269:11, 270:16 270:19, 270:21 297:23, 311:10 IPNME 254:16 Isaias 149:6 152:1, 152:7 Isaias-Gastelum 8:20, 152:8 152:13, 152:16 152:18, 152:22 152:25, 153:1 ISIP 312:13 312:16 ISIPs 312:10 issuance 232:13 issue 37:14 37:15, 75:14 80:24, 81:6 81:9, 81:14 82:4, 82:5 82:12, 82:19 83:19, 89:13 89:24, 92:6 93:17, 137:9 137:13, 138:4 138:11, 147:4 221:11, 242:2 246:11, 249:10 264:6, 264:12 275:3, 275:17 275:21, 276:20 299:19, 310:12 issued 231:19 232:1, 234:2 234:20, 235:11 issues 40:24 79:13, 80:23	83:12, 86:2 86:14, 88:1 89:12, 91:10 95:17, 98:7 99:16, 108:6 113:8, 114:17 115:1, 124:5 126:19, 127:22 128:10, 128:13 128:16, 128:21 128:22, 128:23 129:5, 129:8 129:14, 156:6 267:3, 275:2 276:8, 278:3 293:17, 293:18 297:17, 328:19 Item 14:21 14:23 iterative 278:1 J J-O-H-N 136:23 James 71:8 120:4 Janoe 6:3, 8:11 31:2, 31:3 31:5, 107:14 107:15, 107:16 109:10, 171:16 171:17, 182:2 182:3, 192:1 217:21, 217:22 236:24, 236:25 260:20, 260:21 279:11, 279:12 324:1, 324:2 January 13:24 15:8, 92:1 312:24 Jaynes 4:3 29:15, 29:17 29:18, 69:16 69:18, 170:23 180:18, 184:23 jaynesda@law... 4:8 jeff.holmste... 6:11 JEFFREY 6:7 Jennine 3:23 Jeremy 74:1 Jersey 292:10 Jesus 294:1 Jill 129:6 JJJJ 13:19 Joan 8:19 134:4, 146:9 146:12, 146:18 job 92:24	99:23, 137:14 156:22, 167:7 167:10, 176:5 176:8, 186:6 186:9, 229:25 230:2, 240:11 240:13, 263:12 John 4:16, 8:17 9:9, 20:9 72:22, 87:15 91:18, 131:22 134:3, 136:13 136:23, 137:3 137:6, 198:7 198:14, 213:10 216:3, 218:15 john_vimont@... 4:19 Johnson 4:4 29:20, 184:24 johnsonke@la... 4:9 join 26:3, 26:5 26:18, 54:20 71:17, 100:12 214:13, 228:3 228:9, 239:12 290:5 joined 26:8 26:19, 145:19 174:16 joins 139:1 joint 62:15 66:13, 67:19 68:9, 68:23 69:6, 69:9 jointly 44:18 Jones 2:9, 22:4 23:4, 23:14 27:1, 27:11 114:4, 129:2 133:19, 154:25 157:9, 158:8 239:5, 283:22 JORDAN 3:4 Joseph 71:9 Joshua 204:25 205:11 JOTR 205:11 Joy 3:4, 84:16 Juan 3:12, 50:7 53:24, 81:10 233:17, 303:6 305:12, 305:15 308:15, 313:20 327:8, 327:9 327:15, 327:16 July 10:13 10:24, 13:2 17:6, 19:3 225:8, 225:10	225:10, 234:20 312:22 jump 115:9 June 11:10 13:22, 14:24 15:10, 16:9 17:16, 49:15 jurisdiction 41:19, 248:15 249:7, 250:16 260:13, 305:24 309:6, 314:11 317:19, 320:21 jurisdictional 245:16, 301:2 jurisdictions 301:12, 325:18 justice 57:5 71:4, 72:2 72:11, 79:13 146:25, 147:24 148:15 justification 44:10, 310:7 justify 106:15 258:15, 258:16 299:16, 307:4 307:22 Justin 91:5 K K-A-Y-L-E-Y 149:15 K-U-E-H-N 229:4 KAREN 2:8 KARI 5:17 KARL 2:7 Karla 2:11 22:6 Katz 2:16, 8:2 8:23, 9:3, 9:6 9:14, 28:18 28:20, 28:22 28:24, 33:2 33:5, 33:18 34:9, 40:17 41:3, 41:6 41:7, 41:8 53:7, 65:18 100:23, 104:3 155:7, 155:12 156:16, 156:21 157:3, 158:4 158:10, 158:12 158:16, 159:15 159:19, 159:22 159:25, 160:4 160:16, 161:7 161:12, 161:20 162:3, 162:8	162:11, 162:15 162:17, 162:23 163:2, 163:9 163:15, 165:10 165:22, 166:14 166:16, 167:1 170:11, 174:4 174:6, 174:10 175:4, 175:5 175:17, 175:22 180:12, 184:18 185:3, 185:6 185:11, 185:18 185:24, 195:2 196:19, 197:21 197:23, 212:10 212:11, 228:3 228:6, 228:10 228:17, 228:22 229:10, 229:11 229:17, 231:18 235:13, 235:20 238:21, 239:1 239:3, 242:1 254:11, 254:20 255:6, 255:10 263:22, 263:23 273:14, 274:12 274:16, 274:18 277:3, 278:11 278:13, 283:3 283:4, 283:11 288:7, 288:10 288:12, 295:14 328:12, 328:17 329:7, 329:20 329:21 Kayley 8:19 134:4, 149:5 149:19, 149:22 149:23 keep 47:2, 78:5 87:21, 94:18 98:11, 100:5 153:13, 154:11 156:22, 253:1 268:21, 290:17 keeps 207:10 Keifer 4:4 29:20, 184:24 Kennedy 3:8 84:20 Kenney 54:11 kept 102:19 key 112:20 127:4 kids 154:3 154:6, 154:12 Kim 128:16 kind 27:6 144:17, 157:12
--	---	--	--	---

160:1, 165:5 174:21, 183:14 183:16, 201:8 202:3, 203:25 206:3, 220:18 221:17, 222:15 281:5, 294:23 Kinder 6:18 31:21, 113:14 114:6, 114:11 114:13, 114:19 115:1, 115:11 115:14, 115:17 115:24, 116:6 116:15, 116:15 116:25, 117:11 117:13, 118:7 118:13, 118:19 118:25, 119:3 119:22, 119:25 120:3, 120:4 120:6, 120:24 121:15, 121:19 121:21, 122:21 283:6 kinds 103:8 294:16 King 10:3 282:22, 284:4 293:2, 293:2 293:3, 293:4 293:8, 293:11 293:14, 293:15 293:19, 295:9 knew 330:2 Knight 2:21 9:17, 9:18 9:19, 9:21 28:25, 239:9 239:12, 239:14 239:20, 240:1 242:1, 242:5 242:6, 243:3 243:15, 253:5 253:11, 253:12 253:24, 261:5 262:5, 262:7 262:10, 263:5 263:16, 263:20 263:21, 278:14 288:8, 295:16 295:19, 296:12 296:16, 296:21 297:2, 297:11 298:9, 311:2 314:15, 326:19 326:21, 326:24 327:17, 328:1 know 21:22 21:24, 23:15 26:12, 26:19	34:2, 34:23 35:11, 37:3 40:1, 56:7 92:3, 99:6 100:8, 131:18 132:5, 139:7 144:6, 144:19 146:1, 146:6 150:14, 150:16 155:17, 157:14 157:22, 158:4 160:1, 161:1 161:24, 164:23 165:7, 165:12 165:12, 170:17 170:18, 174:22 181:21, 181:22 181:23, 196:11 197:11, 197:11 200:11, 202:9 202:16, 202:25 203:1, 203:17 204:10, 204:14 205:21, 206:17 213:22, 217:5 220:5, 220:13 220:18, 221:1 221:2, 221:14 221:19, 221:20 221:22, 222:6 222:12, 222:13 225:10, 225:18 225:19, 225:23 227:10, 228:13 242:2, 253:15 255:4, 276:12 276:24, 277:17 282:8, 283:9 291:14, 292:16 296:4, 296:6 297:12, 301:18 302:15, 305:23 308:22, 309:5 312:5, 314:7 314:8, 316:10 316:13, 319:10 327:24, 329:13 330:7 knowing 36:21 known 48:18 80:10, 168:14 168:19, 315:22 knows 69:24 kolson@monta... 5:21 ksoloria@nma... 2:14 Kuehn 45:2 51:4, 158:21 163:3, 228:20 228:25, 229:4	229:19, 235:5 235:17, 235:18 235:21, 237:12 237:14, 237:17 238:19, 238:20 238:23 Kuehn's 49:17 160:25, 163:6 L L-A-N-C 143:7 L-E-B 143:7 labeled 288:1 Labs 233:19 lack 150:24 301:15, 307:3 307:5 lacking 50:12 Lackner 63:22 64:2 Lackner's 63:23 lacks 64:1 299:4 laid 165:23 Lake 327:16 lamp 179:20 188:23 land 57:12 57:21, 148:24 304:21 language 47:17 102:21, 123:17 123:21, 126:18 127:10 Lara 2:16 28:23 Lara.katz@st... 2:19 large 65:19 90:9, 130:20 130:21, 164:21 200:9, 200:10 233:14 largely 130:2 292:3 larger 110:18 295:4 largest 42:12 42:16, 59:4 81:18, 169:6 260:16, 262:12 Las 3:19 291:15, 292:8 lastly 69:5 129:5, 189:19 late 103:16 141:3 latest 90:17 111:25, 127:16 157:8, 194:12	launch 99:5 launching 127:7 129:4 law 3:14, 3:18 3:22, 4:3, 4:4 4:6, 5:10 5:12, 29:6 30:13, 31:13 53:14, 70:2 70:3, 70:4 79:6, 79:7 79:10, 79:11 79:14, 80:18 99:6, 104:12 109:19, 109:20 109:22, 112:23 113:2, 123:7 136:8, 184:21 249:11, 285:22 laws 201:17 lawyers 22:10 26:15, 28:4 100:4, 132:9 132:11, 132:24 159:8 lay 24:14 LDAR 15:11 55:20, 55:25 62:5, 64:20 66:4, 66:5 66:12, 66:13 66:17, 67:6 67:19, 67:22 82:20, 82:25 83:5, 96:6 97:1, 97:4 108:9, 122:17 Lea 183:4 183:7, 183:8 292:11, 302:10 302:18, 305:9 308:15 lead 25:25 54:14, 76:24 242:14 leaders 147:2 147:5, 148:14 148:19, 151:13 leadership 87:7 leading 111:22 142:6 leak 17:24 55:19, 62:16 62:23, 64:15 64:19, 65:16 66:6, 71:22 72:4, 82:19 82:22, 97:10 98:12, 122:14 122:17 leak-free 99:12	leakage 294:12 Leaking 82:20 leaks 56:5 56:7, 62:4 65:13, 67:23 96:5, 96:21 96:21, 154:16 294:24 leap 331:1 leaping 328:16 learn 153:17 learned 13:6 15:21, 15:23 18:2, 146:25 150:12 learning 150:6 leave 35:25 38:15, 90:9 285:16 leaves 51:13 110:17, 202:6 leaving 38:21 LeBlanc 8:18 134:4, 142:23 142:24, 142:24 142:25, 143:3 143:5, 143:7 143:10, 143:13 143:14, 145:10 led 71:17 Lee 56:11 left 102:24 157:6, 200:11 legal 99:15 legislative 87:5, 292:1 legislature 42:4, 50:17 75:4, 89:18 102:13, 102:19 119:11, 120:15 120:18, 285:6 317:10 legislature's 125:11 lending 112:11 140:3 lengthy 79:22 111:21, 128:11 291:23, 295:15 295:18 Leslie 7:20 32:9, 120:2 129:23 Lessons 13:6 15:21, 15:23 18:2 letter 19:3 148:13, 151:15 189:22, 226:16 LEV 251:4
--	--	--	--	---

level 44:5 54:5, 60:15 60:23, 63:6 63:19, 80:12 96:22, 98:21 106:5, 112:7 154:8, 167:15 200:18, 201:25 210:24, 244:23 302:23, 307:10 325:7	limits 18:19 23:20, 48:14 51:6, 90:20 141:17, 178:14 276:14, 276:15 276:16 Lincoln 7:11 line 38:12 38:15, 38:15 95:2, 151:5 192:20, 277:18 301:22, 301:24 326:19	little 22:11 25:5, 25:9 34:3, 35:3 36:10, 37:20 39:4, 65:17 91:24, 92:4 94:10, 96:6 124:3, 135:1 138:12, 143:22 157:12, 161:25 163:23, 164:22 165:11, 165:13 185:1, 197:13 200:11, 202:3 203:21, 208:10 225:13, 242:4 253:23, 258:7 265:15, 284:2 290:17, 294:10 294:15, 294:15 294:22, 309:20 315:18, 328:14 329:11	location 88:5 118:4, 178:10 179:9, 187:10 323:14 locations 110:16, 192:24 232:18, 234:12 306:5 lodged 164:19 logger 179:23 logically 300:4 logistical 129:1 long 81:24 91:18, 95:15 99:21, 133:3 167:5, 176:3 186:3, 193:14 201:8, 210:3 229:23, 240:9 295:15, 300:14 316:7, 318:5 long-term 275:22 longer 75:11 81:4, 140:1 153:13 look 36:13 61:2, 92:16 102:25, 105:11 107:11, 114:16 122:22, 125:18 129:13, 130:5 130:24, 141:8 141:15, 155:17 189:13, 203:17 215:15, 221:15 225:1, 239:10 268:19, 283:10 286:22, 302:14 302:20, 311:4 317:14, 321:2 327:23 looked 97:3 97:25, 213:13 looking 34:15 37:12, 92:7 96:20, 100:24 105:25, 150:17 160:2, 183:12 194:5, 194:6 194:7, 194:7 203:17, 215:10 221:11, 227:13 228:25, 257:11 259:20, 262:19 276:9, 276:10 330:13 looks 53:6 225:24, 231:14 259:15, 274:14	loose 330:19 Lori 128:24 Los 233:18 lot 22:5, 22:22 24:8, 25:2 88:10, 88:16 90:3, 94:9 126:16, 130:8 138:6, 140:1 141:13, 144:11 156:16, 156:16 221:14, 254:25 289:3, 292:6 294:5, 325:17 330:25 lots 28:4, 28:4 203:18, 209:17 Lou 254:21 268:17, 270:2 louder 242:4 243:4 loudly 133:23 Louis 5:16 30:25, 101:15 Louisiana 6:4 love 100:11 100:11, 148:8 loved 150:21 Lovells 6:21 31:20, 114:6 Lovington 292:12, 292:18 low 51:15 51:16, 51:16 52:3, 59:19 65:17, 65:18 69:1, 117:24 126:3, 251:3 low-emitting 108:9 low-producing 51:11 lower 26:24 48:1, 51:25 66:11, 87:21 117:5, 147:10 209:14, 209:19 251:14, 265:15 265:17, 281:9 281:9, 281:9 309:10 lower-producing 80:25 lowest 252:13 LP 7:2, 7:10 lrose@montan... 5:20 Luccini-Lucero 282:22, 284:4 290:10 Luisa 5:12
levels 41:19 42:6, 45:19 56:20, 59:25 63:5, 64:9 78:3, 87:25 90:23, 91:4 104:10, 104:21 105:2, 178:21 179:11, 215:10 215:11, 221:7 244:4, 244:12 284:25, 287:2 303:1, 308:8 310:24, 323:12	link 25:12 25:13, 25:14 25:17, 25:22 25:25, 26:2 26:3, 26:4 26:17, 184:22 226:15 links 25:13 226:10 liquid 59:25 93:17, 127:6 128:18 liquids 13:5 19:10, 59:24 67:25, 68:4 82:6, 94:6 118:11 Lisa 4:11 29:24, 198:7 198:11 lisa_devore@... 4:15 Lisowski 91:5 list 18:9 18:21, 19:1 28:20, 33:11 60:11, 84:7 101:1, 120:15 156:3, 170:7 170:14, 180:13 190:14, 226:17 268:3, 268:7 287:17 listed 214:4 214:6, 234:12 263:25 listen 138:15 listened 45:8 137:10 listening 10:17 129:12, 132:6 138:11, 211:19 282:7, 282:9 lists 155:14	live 57:2, 57:7 70:13, 71:23 74:14, 82:24 127:22, 140:1 142:10, 148:23 220:21 lives 57:9 143:17, 151:19 living 56:18 66:25, 67:13 71:6, 140:2 220:22, 292:22 Liz 228:20 228:23 LLC 1:20, 3:18 6:18, 6:19 6:19, 7:2, 7:2 7:2, 7:14 16:22, 123:11 LLP 6:3, 6:9 6:21, 7:5 31:13, 109:22 Loading 16:19 lobbying 50:16 50:19 local 72:7 72:13, 110:21 115:21, 116:1 116:2, 177:20 217:4, 325:15 325:17 localized 201:7 located 42:15 46:24, 47:5 47:8, 55:20 67:20, 183:12 197:7, 203:1 246:12	longer 75:11 81:4, 140:1 153:13 look 36:13 61:2, 92:16 102:25, 105:11 107:11, 114:16 122:22, 125:18 129:13, 130:5 130:24, 141:8 141:15, 155:17 189:13, 203:17 215:15, 221:15 225:1, 239:10 268:19, 283:10 286:22, 302:14 302:20, 311:4 317:14, 321:2 327:23 looked 97:3 97:25, 213:13 looking 34:15 37:12, 92:7 96:20, 100:24 105:25, 150:17 160:2, 183:12 194:5, 194:6 194:7, 194:7 203:17, 215:10 221:11, 227:13 228:25, 257:11 259:20, 262:19 276:9, 276:10 330:13 looks 53:6 225:24, 231:14 259:15, 274:14	lots 28:4, 28:4 203:18, 209:17 Lou 254:21 268:17, 270:2 louder 242:4 243:4 loudly 133:23 Louis 5:16 30:25, 101:15 Louisiana 6:4 love 100:11 100:11, 148:8 loved 150:21 Lovells 6:21 31:20, 114:6 Lovington 292:12, 292:18 low 51:15 51:16, 51:16 52:3, 59:19 65:17, 65:18 69:1, 117:24 126:3, 251:3 low-emitting 108:9 low-producing 51:11 lower 26:24 48:1, 51:25 66:11, 87:21 117:5, 147:10 209:14, 209:19 251:14, 265:15 265:17, 281:9 281:9, 281:9 309:10 lower-producing 80:25 lowest 252:13 LP 7:2, 7:10 lrose@montan... 5:20 Luccini-Lucero 282:22, 284:4 290:10 Luisa 5:12

Lujan 44:15 54:13, 62:13 75:5, 231:19 lunch 25:4 131:17, 132:1 lung 244:17 lungs 244:10 Lyon 64:12 64:13, 64:16 65:6, 65:10 65:14, 65:21 68:8 Lyon's 68:15	157:14, 159:22 160:16, 162:3 163:12, 164:15 165:10, 166:16 170:20, 170:21 171:6, 171:11 171:17, 171:20 171:24, 172:3 172:9, 172:18 174:10, 175:5 175:23, 180:15 180:19, 180:23 181:1, 182:3 182:20, 182:22 183:1, 184:16 185:6, 190:15 190:19, 191:8 191:21, 192:16 192:18, 193:11 212:11, 212:14 212:17, 212:21 212:25, 213:7 214:3, 217:8 218:16, 218:18 219:20, 219:24 229:3, 235:22 236:1, 236:5 237:16, 237:18 237:23, 239:3 240:2, 240:2 240:6, 240:6 240:7, 253:6 253:12, 254:1 255:14, 255:20 256:9, 261:9 261:10, 262:7 263:6, 263:21 263:23, 264:4 264:10, 264:17 264:22, 267:15 268:2, 268:23 269:13, 269:18 270:15, 270:24 273:14, 273:19 273:23, 277:8 278:17, 278:20 278:25, 279:5 279:10, 279:12 280:3, 280:5 280:10, 282:11 283:4, 284:19 287:22, 288:14 295:19, 296:19 297:5, 298:10 298:11, 311:2 314:15, 314:23 315:16, 323:3 323:8, 323:23 324:2, 324:18 324:20, 325:13 325:13, 326:3	326:21, 328:17 329:9, 330:5 magnitude 215:10, 215:16 307:8, 307:9 318:15 magnitudes 64:25 main 3:18 108:18, 201:3 211:10, 254:17 258:9, 272:24 maintain 181:21 maintained 105:15, 181:17 181:18, 272:10 323:18 maintaining 85:12, 109:5 313:5 maintains 115:19, 178:12 323:16 maintenance 41:22, 67:24 90:15, 102:11 248:20, 249:22 299:22, 312:8 major 14:21 16:13, 56:8 82:20, 121:9 230:18 majority 93:7 106:9, 210:5 210:10, 286:6 305:14 making 26:14 43:18, 51:1 54:3, 66:11 77:22, 89:4 90:5, 99:7 109:11, 112:16 123:1, 138:8 216:17, 247:15 255:6, 259:3 292:21 malfunction 58:24 malfunctioning 68:17, 68:19 manage 143:24 144:12, 156:7 186:10, 186:12 230:3, 240:14 295:4 management 13:13, 16:4 86:7, 108:3 124:9, 126:10 127:8, 128:22 129:10, 144:2	144:8, 144:17 144:22, 230:6 325:10, 325:14 325:19 manager 7:20 42:25, 43:2 43:7, 120:3 143:21, 186:8 230:18, 240:12 241:3, 263:13 managers 203:7 managing 43:14 44:6 Mancos 280:20 280:23 mandate 120:12 287:5 mandates 248:12 mandatory 41:13 46:10, 46:11 251:18, 258:21 manner 33:24 115:12 manual 68:5 322:14 manually 82:8 manufacture 142:8 map 55:15 233:8, 233:11 233:21, 234:2 304:14 maps 295:23 March 10:19 19:13, 232:25 285:25 margin 200:12 marginal 105:18 marginalized 70:11, 72:9 77:1 MARIA 6:20 marked 162:4 231:1 markers 204:9 204:12 market 126:8 141:8 market-based 61:22 Marketing 13:5 MarkWest 16:21 16:22 Marquez 128:24 Marshall 5:4 Mary 282:21 284:3, 290:9 290:9 mass 209:25 masse 39:23 40:18, 160:13	massive 42:10 Master 198:18 Master's 56:11 match 62:25 matching 230:10 material 15:8 50:16, 50:23 materials 33:1 321:21, 329:12 Matt 30:6 73:19 matter 1:4 1:10, 21:4 22:10, 24:8 25:13, 32:16 70:8, 70:22 128:1, 132:5 174:14, 178:18 242:14, 259:5 306:13, 318:17 332:16, 332:18 matters 22:19 120:19, 128:7 MATTHEW 5:3 Matthias 7:10 32:2 matthias.say... 7:13 Maureen 63:22 maximize 78:22 maximum 88:4 90:21, 187:22 188:13, 190:7 246:8 McCabe 58:13 58:15, 58:21 59:15, 59:20 McNally 88:11 88:19, 89:24 99:2, 297:18 297:25, 298:21 298:22, 309:18 315:21, 315:22 McNally's 297:21, 297:22 298:24, 301:13 307:2, 309:24 Meade 19:21 mean 36:19 137:21, 161:1 164:25, 165:3 165:10, 165:16 174:13, 193:19 194:9, 196:5 197:10, 221:7 221:25, 239:3 281:8, 292:7 302:14, 318:12 322:21, 322:25 322:25, 323:1 meaning 24:9
M				
M.D 8:18 139:20, 139:23 ma'am 53:10 136:16, 136:23 142:25, 172:14 172:23 Machineries 13:10 Madam 21:12 28:22, 28:23 29:4, 29:5 29:11, 29:12 29:17, 30:4 30:5, 30:11 30:11, 30:17 30:18, 30:24 31:3, 31:4 31:8, 31:18 31:19, 31:24 31:25, 32:7 32:8, 33:5 33:18, 34:9 35:15, 37:1 37:8, 38:8 39:17, 41:8 53:12, 53:13 61:7, 61:11 69:13, 69:18 70:6, 70:6 73:16, 73:18 73:19, 79:2 79:3, 79:4 84:13, 84:14 84:14, 98:17 98:18, 99:17 99:17, 101:10 101:14, 107:10 107:16, 107:17 109:7, 109:13 109:16, 109:17 111:23, 113:4 113:15, 114:2 114:3, 123:5 123:6, 129:21 152:17, 155:12				

Volume 1
9/20/2021

EIB Ozone Hearing

26:11, 118:14 150:20, 201:7 272:15 meaningful 47:24, 151:23 272:16 means 87:8 87:19, 96:25 117:5, 118:16 148:19, 280:24 322:9 meant 27:6 224:8, 244:4 measure 73:1 78:17, 82:6 178:2, 201:22 measured 59:25 65:8, 201:2 204:21, 205:6 208:16, 211:7 211:9 measurement 55:9, 59:23 60:6, 62:21 68:24, 82:8 216:22 measurements 64:24, 73:5 206:12 measures 46:9 46:10, 46:11 201:10, 201:13 211:14, 211:15 247:16, 247:21 249:14, 313:3 measuring 82:5 82:10, 179:16 mechanism 215:18 mechanisms 111:15 media 50:17 meet 45:8, 46:8 62:12, 136:9 178:11, 188:20 195:17, 249:17 286:7 meeting 10:19 25:19, 26:1 75:12, 187:14 232:22, 232:25 235:14, 246:5 263:2 meetings 1:12 232:19, 232:20 234:10, 234:12 252:1 meets 105:21 190:2, 203:11 203:12, 245:18 306:24	Meido 3:11 member 21:11 21:15, 21:16 21:17, 21:19 21:20, 21:21 21:22, 21:22 21:22, 21:23 21:25, 23:6 85:3, 100:9 100:9, 100:9 100:10, 100:15 101:5, 110:6 112:22, 115:18 132:2, 133:8 133:11, 133:15 150:1, 151:10 153:3, 156:19 157:3, 157:18 158:10, 172:24 173:1, 173:2 173:3, 173:4 173:13, 173:18 173:19, 173:20 173:23, 183:24 184:1, 184:3 184:4, 184:6 184:7, 184:8 184:10, 184:11 195:2, 195:8 195:9, 195:11 195:12, 196:3 196:7, 196:13 196:22, 197:2 197:3, 197:6 197:12, 197:16 197:17, 220:2 220:4, 220:12 220:21, 220:24 221:17, 222:10 222:18, 222:24 222:25, 223:1 223:3, 223:4 223:6, 223:7 224:1, 224:4 224:6, 224:8 224:13, 224:19 224:25, 225:11 226:6, 226:13 237:25, 238:1 238:2, 238:3 238:10, 238:13 238:13, 238:14 238:16, 238:17 261:17, 261:18 261:19, 261:20 261:21, 261:23 262:1, 262:2 281:14, 281:15 281:16, 281:17 281:18, 281:19 281:20, 281:22	325:1, 325:2 325:4, 325:6 325:13, 325:20 325:23, 326:1 326:2, 326:3 326:13, 326:15 326:16 members 21:10 26:7, 27:8 27:14, 28:4 28:23, 29:5 29:12, 30:5 30:11, 30:18 31:4, 31:19 32:8, 53:13 61:10, 61:16 61:18, 70:7 73:19, 74:13 76:14, 78:16 79:4, 79:15 84:14, 86:16 98:17, 98:18 99:18, 100:2 100:7, 101:15 101:23, 107:17 109:16, 110:10 110:19, 111:24 112:4, 113:6 114:3, 123:6 123:11, 123:11 124:6, 124:22 125:3, 126:3 127:12, 129:22 132:9, 133:2 133:7, 133:13 147:2, 153:2 155:9, 156:13 156:18, 157:20 157:22, 170:16 172:16, 218:11 226:18, 232:21 233:12, 237:11 239:6, 240:3 240:6, 261:6 284:20, 298:10 324:13 membership 61:15, 101:23 Memo 16:3, 16:8 16:10 Mennonite 293:20 mental 36:24 mention 22:5 130:13, 165:14 224:20 mentioned 124:4 125:23, 131:4 195:13, 211:21 223:10, 231:18 235:13, 243:18	326:5, 326:9 merely 25:25 mesa 203:3 203:6, 221:11 message 25:25 97:23, 159:11 184:20 met 42:22 42:25, 104:14 106:25, 187:20 235:13, 292:19 meteorological 308:19 meteorologist 198:24 meteorology 245:15, 301:1 304:20 meth 154:14 methane 10:17 10:19, 10:20 15:4, 15:19 17:11, 17:13 19:8, 44:20 45:1, 49:4 54:5, 54:15 58:19, 59:3 59:4, 60:4 60:16, 63:9 63:13, 63:17 63:20, 65:3 66:21, 79:20 80:14, 80:15 86:21, 106:22 106:23, 106:24 107:6, 107:8 146:15, 146:25 147:3, 147:15 147:23, 148:3 149:1, 150:2 150:16, 151:5 151:8, 151:18 153:18, 153:20 154:14, 161:13 163:16, 165:13 165:14, 165:16 231:25, 232:3 232:9, 232:11 233:1, 233:24 272:5, 285:10 285:23, 286:6 286:11, 286:11 286:14, 286:18 method 13:4 15:7, 56:3 322:1 methodology 17:24, 275:19 methods 233:25 273:12 metric 59:2	59:2 Mexicans 57:2 63:6, 66:24 70:18, 74:22 78:11, 87:22 285:18 Mexico 1:1 1:22, 2:4 2:13, 2:15 2:18, 2:19 2:22, 2:24 3:2, 3:9, 3:12 3:15, 3:19 4:6, 4:7, 5:8 5:10, 5:12 5:13, 5:15 5:19, 6:15 7:12, 10:13 11:8, 11:10 20:10, 21:9 28:24, 29:18 30:13, 30:14 30:19, 31:1 41:11, 41:13 42:5, 42:11 42:12, 53:21 53:25, 55:15 56:9, 59:1 60:13, 61:18 63:4, 64:9 64:18, 64:25 65:3, 67:10 70:3, 71:6 73:1, 73:25 74:14, 74:21 75:3, 75:4 75:10, 75:19 76:7, 77:17 77:19, 79:6 79:7, 79:9 79:13, 79:14 80:17, 83:17 84:17, 84:22 84:24, 85:1 85:14, 87:4 88:24, 89:6 92:17, 96:1 97:2, 97:4 98:11, 99:19 99:23, 101:18 101:22, 109:5 110:7, 110:20 111:11, 113:8 114:4, 114:20 115:14, 115:18 117:14, 119:8 119:9, 119:10 124:6, 124:20 127:3, 130:14 130:21, 130:22 138:2, 140:3
---	--	---	---	--

140:9, 140:25	242:23, 243:12	284:14, 291:3	254:18, 266:24	179:11, 179:15
144:4, 146:20	midcentury	293:10	272:8, 272:11	183:6, 188:11
147:6, 151:11	286:15	mispronounced	272:20, 272:23	194:18, 197:7
153:3, 153:5	middle 183:13	152:2	273:15, 274:1	203:14, 299:4
167:4, 169:4	293:24, 323:15	mispronouncing	274:2, 274:6	301:15, 301:15
169:6, 176:1	Midland 17:6	134:22	274:7, 274:20	301:18, 301:22
176:9, 176:15	midstream 7:2	missing 134:9	275:1, 275:6	302:1, 302:5
176:17, 176:19	7:2, 16:22	mission 74:10	276:20, 277:10	305:15, 305:19
176:20, 176:21	110:9, 110:14	75:15	277:14, 277:24	306:7, 306:9
178:5, 178:11	116:21, 118:2	missions 70:25	281:3, 282:7	306:22, 306:23
178:19, 183:9	118:8, 123:9	71:15	299:9, 299:16	323:16, 323:22
186:2, 188:6	123:10	mistake 60:18	301:6, 302:23	326:5, 326:7
198:21, 200:20	Midwest 202:21	159:15, 214:8	302:24, 307:3	327:2, 327:4
202:25, 216:11	Miguel 143:15	Mister 172:6	307:6, 307:16	327:16
216:15, 229:21	Mike 195:3	misunderstood	307:22, 309:19	monitored
231:21, 232:12	234:9, 242:3	100:3, 100:14	310:10, 310:15	178:16, 179:12
233:20, 234:5	254:13	mitigate 57:6	310:17, 314:2	203:10, 247:16
234:9, 240:8	mile 57:12	72:13, 119:20	314:5, 328:16	247:22, 301:14
240:18, 246:16	miles 115:15	249:14	328:19, 328:22	320:22, 323:14
251:15, 252:17	million 61:16	mitigation 19:8	329:3, 331:2	monitoring
262:13, 272:1	115:20, 124:22	240:20, 251:5	modeling-rel...	11:25, 28:1
284:22, 286:10	124:24, 125:15	mix 204:8	274:11	43:6, 45:18
286:22, 291:16	187:19, 187:24	204:21	modelings	45:23, 49:20
291:19, 292:3	188:2, 188:11	mnykiel@wild...	167:11	91:14, 127:5
292:9, 292:13	189:15	5:5	models 43:17	128:23, 151:9
292:15, 292:24	millions 48:18	mobile 251:1	169:19, 173:6	158:18, 174:20
302:15, 303:1	124:10	257:25	173:10, 173:11	176:10, 176:22
312:4, 313:1	mind 36:15	mode 199:22	266:22, 272:25	177:14, 177:20
323:18, 332:1	39:13, 74:20	200:3	310:16	177:25, 178:4
332:2, 332:9	78:14, 94:18	model 11:6	Modification	178:7, 178:9
332:22	98:12, 160:10	11:12, 11:13	12:10, 12:14	178:13, 178:24
Mexico's 60:20	192:22, 212:3	11:13, 43:19	modifications	179:2, 179:9
74:16, 74:17	mine 150:5	48:11, 48:13	55:5	179:19, 180:2
78:14, 87:7	160:18	50:14, 60:21	modified 59:22	180:9, 181:19
88:1, 188:7	Minerals 43:9	64:1, 88:12	Modrall 6:14	185:7, 186:11
286:4, 292:1	44:17, 231:22	179:14, 202:5	31:9, 31:15	186:12, 187:21
312:15	285:9, 285:23	210:8, 210:9	109:18, 109:20	188:1, 188:15
Mexico-based	minimal 106:14	273:5, 273:5	module 292:20	188:21, 189:1
75:6, 78:9	minimize 68:4	281:7, 301:5	Moellenberg 3:8	189:2, 189:2
Meyer 92:24	136:4	303:12	30:21, 84:20	189:3, 189:5
95:6	minimum 75:12	modeled 55:22	molecule 169:10	189:8, 189:11
Michael 8:18	251:24	60:8, 130:14	169:10, 169:11	189:12, 189:21
9:16, 10:8	mining 178:22	modeler 43:4	169:12, 215:21	189:24, 192:23
10:9, 20:7	233:20	167:8	molecules	192:25, 193:4
42:25, 134:3	minor 83:20	modelers 282:9	169:13, 179:19	194:20, 195:20
139:3, 139:20	90:25, 230:17	modeling 11:4	moment 35:4	195:20, 195:24
139:23, 239:8	minus 196:9	11:5, 11:16	35:6, 39:16	196:1, 198:25
239:21, 239:25	minute 200:21	11:19, 11:20	40:22, 113:18	199:5, 200:21
256:11, 262:9	290:11, 291:9	18:15, 43:4	115:4, 133:24	200:22, 203:9
263:10, 297:7	minutes 23:17	47:19, 47:20	134:7, 184:23	203:11, 204:15
297:10, 316:17	23:19, 25:3	48:3, 48:9	191:5, 199:11	218:23, 218:24
323:10, 324:17	30:1, 84:3	48:10, 48:12	267:19, 321:5	227:20, 233:6
326:23	132:19, 134:5	48:23, 50:11	331:1	245:21, 249:8
Michelle 75:4	135:11, 137:2	64:7, 75:9	moments 128:9	266:24, 272:8
231:19	139:19, 143:9	88:3, 98:25	Monday 283:17	294:9, 294:10
micrometers	146:8, 149:18	130:8, 159:2	money 88:9	299:9, 302:10
178:19	152:21, 166:14	159:3, 167:14	88:17, 148:2	305:6, 305:21
microns 242:15	175:17, 185:19	169:17, 170:3	294:20, 294:22	306:9, 306:10
242:15	199:12, 227:25	170:6, 173:7	monitor 46:23	306:13, 306:17
microphone	277:20, 282:15	245:22, 250:15	88:5, 117:15	306:20, 317:1
97:23, 242:21	282:23, 283:21	250:19, 252:22	117:19, 150:15	318:3, 320:24

326:10 monitors 42:15 47:5, 47:15 177:21, 177:24 178:1, 178:11 178:17, 181:15 181:16, 181:21 183:3, 183:4 189:4, 194:18 203:6, 211:1 247:19, 272:13 299:3, 300:3 300:6, 303:23 305:8, 305:12 305:17, 306:6 306:8, 306:14 308:11, 308:23 308:25, 323:20 326:11, 327:9 monoxide 242:13 Montgomery 5:18 101:16 monthly 11:9 11:10, 56:5 96:19, 98:6 months 38:6 46:17, 82:3 95:4, 124:23 139:25, 147:16 188:7, 188:8 215:13, 215:14 225:5, 262:24 moral 153:12 Morgan 6:18 31:21, 113:14 114:6, 114:11 114:14, 114:19 115:1, 115:11 115:14, 115:17 115:24, 116:6 116:15, 117:11 117:13, 118:7 118:19, 119:1 119:22, 120:3 120:5, 120:6 120:24, 121:15 122:21, 283:6 Morgan's 116:16 116:25, 118:14 119:3, 119:25 121:19, 121:22 morning 21:1 21:12, 21:13 21:17, 21:23 21:25, 22:1 22:7, 22:8 22:17, 25:3 25:15, 25:17 25:23, 26:16 28:3, 28:3 28:23, 29:4	29:11, 29:13 29:17, 30:4 30:10, 30:14 30:17, 31:3 31:8, 31:16 31:18, 31:24 32:5, 32:7 32:10, 39:14 42:22, 53:12 61:10, 79:3 84:14, 107:16 109:18, 114:2 123:5, 137:11 138:1, 154:23 159:4, 189:17 207:24, 208:2 262:11, 311:6 328:25, 330:25 Morris 18:13 18:14, 19:14 43:13, 43:15 45:16, 47:22 48:8, 88:3 99:1, 277:3 Morris's 250:20 273:18, 276:25 mothers 147:9 motion 34:12 39:7, 39:8 39:9, 39:14 247:9, 311:5 motions 22:16 32:14, 32:15 32:19 motivations 111:18 Mountain 205:13 Mountains 203:2 mouthful 114:12 move 36:7 38:12, 90:10 97:1, 122:25 129:14, 133:11 136:13, 156:14 159:5, 161:2 175:4, 194:4 286:17, 290:3 290:9, 295:7 302:4, 329:3 moved 91:15 116:21, 118:2 140:12, 158:6 242:3 movement 93:18 Movers 14:3 14:19 moves 98:12 118:15 moving 33:8 67:25, 94:8 95:10, 96:4	98:10, 98:23 157:1, 216:21 233:10, 313:17 multiday 209:21 multiple 156:7 218:23, 235:9 262:16, 301:12 301:12, 315:17 multitask 184:25 multiweek 22:25 municipal 119:5 325:7 mute 23:7 132:11, 298:6 muted 100:6 255:17, 264:22 264:23, 274:18 MZ:SP3-Q 7:22 N n-to-pentane 209:7 NAAQS 41:21 45:21, 46:25 52:17, 89:17 102:11, 105:4 106:7, 106:10 107:5, 111:10 111:16, 119:12 187:12, 187:14 187:18, 187:20 242:9, 242:11 242:18, 243:21 244:3, 244:19 244:24, 244:25 245:6, 246:1 246:5, 247:20 248:17, 251:10 251:13, 271:23 272:2, 272:9 300:1, 312:12 312:14, 314:3 NAAQS-limiting 106:4 NAICS.COM 18:11 nails 200:11 name 21:2, 22:3 29:5, 30:5 31:4, 31:11 31:20, 70:1 72:22, 73:19 79:4, 84:15 101:15, 101:18 109:18, 114:5 129:22, 133:22 134:10, 134:22 135:6, 135:7 135:8, 136:22 139:15, 139:15	139:16, 146:7 146:18, 149:14 149:15, 149:16 149:23, 152:2 152:19, 154:24 155:1, 158:5 166:7, 166:8 175:13, 185:17 198:11, 198:11 214:23, 214:24 214:25, 228:20 228:20, 229:1 229:4, 265:21 282:19, 284:1 284:1, 284:20 287:20, 290:25 291:14, 293:19 name's 153:2 names 152:15 282:17, 282:24 290:11 narrative 304:2 nation 54:18 135:25, 233:13 nation's 292:10 nation-leading 55:15, 61:1 national 4:10 9:8, 13:17 16:13, 20:3 20:8, 20:12 29:23, 29:24 31:13, 32:20 32:22, 32:24 41:20, 49:1 53:22, 53:23 55:7, 58:12 61:15, 70:3 72:18, 72:23 72:24, 72:24 72:25, 73:2 73:6, 91:2 102:15, 109:22 111:9, 159:12 177:22, 187:11 198:16, 198:23 198:23, 199:2 199:6, 200:14 200:18, 200:19 201:2, 201:6 201:16, 201:18 201:19, 201:23 201:24, 201:24 203:2, 203:2 203:3, 203:3 203:7, 204:13 204:20, 204:24 204:24, 204:25 205:13, 205:24 206:15, 209:9 210:14, 210:14	210:24, 210:25 211:4, 211:13 212:4, 212:6 212:8, 221:8 227:21, 233:19 240:22, 242:9 243:20, 245:3 246:25, 305:22 320:4 nationally-1... 62:14 Native 67:2 70:12, 71:1 71:2, 71:5 81:10, 83:17 natural 3:12 4:6, 6:18 6:19, 12:7 12:10, 12:13 12:16, 12:19 13:6, 14:3 14:18, 14:19 15:19, 15:21 15:23, 16:4 16:9, 16:11 17:7, 17:9 17:10, 17:13 17:22, 17:25 18:2, 19:9 20:4, 20:4 43:9, 44:17 53:23, 61:19 63:14, 68:7 79:19, 80:7 80:15, 81:17 110:11, 110:14 110:17, 110:18 114:7, 114:8 114:22, 115:11 116:1, 116:3 116:13, 116:22 117:2, 117:3 117:4, 117:5 117:8, 117:15 118:15, 119:1 140:5, 140:10 141:4, 141:8 141:12, 141:14 141:16, 141:18 141:20, 142:1 142:4, 142:8 143:18, 205:7 216:20, 217:3 231:22, 275:14 275:21, 275:23 285:24 nature 275:17 289:14, 303:14 NAVA 4:2, 29:16 29:19, 39:11 54:22, 69:21
---	---	--	---	--

Volume 1
9/20/2021

EIB Ozone Hearing

70:5, 70:16 70:24, 71:2 71:10, 71:12 71:14, 83:4 171:4 Navajo 327:16 near 66:25 67:8, 67:20 70:13, 73:1 82:24, 140:12 147:15, 151:2 178:21, 178:21 219:2, 220:23 222:5, 223:10 223:16, 223:19 246:15, 305:21 near-term 63:11 nearby 210:7 211:13, 300:23 301:9, 303:17 303:23, 307:9 308:9, 321:16 necessarily 39:23, 47:10 51:16, 52:14 99:6, 232:10 290:5, 290:5 321:18 necessary 26:11 26:22, 63:3 64:11, 87:10 104:16, 112:24 140:16, 145:13 153:11, 169:17 201:14, 211:16 necessitated 259:1 need 22:12 32:16, 34:3 38:10, 40:19 40:20, 65:12 65:16, 68:4 73:7, 81:20 84:4, 85:10 90:7, 90:10 91:23, 92:4 93:15, 94:18 94:22, 100:13 106:25, 107:25 108:12, 123:17 132:19, 133:10 139:14, 144:7 146:17, 154:6 159:20, 183:12 210:16, 214:16 214:22, 228:15 228:20, 231:14 231:16, 243:3 254:21, 255:4 257:20, 262:6 265:15, 267:18	271:15, 271:24 272:3, 272:7 276:6, 294:9 294:11, 294:12 294:20, 295:1 295:3, 300:12 300:13, 315:20 326:20, 328:24 329:13 needed 38:22 94:7, 330:2 needs 72:11 86:19, 97:3 97:24, 99:7 105:9, 105:18 107:1, 125:5 147:24, 151:17 157:9, 274:23 275:10, 276:7 277:22, 278:1 283:5 neglected 159:16 negotiated 59:9 NEI 273:1 neighbor 148:8 312:20 neighborhood 147:10 neighborhoods 151:3, 183:19 neighbors 293:23 neither 105:21 246:19, 278:13 332:14 NEPA 118:22 nephew 147:12 NESHAP 16:14 network 118:18 177:14, 177:22 177:25, 178:8 181:19, 306:10 306:17, 306:18 Neumann 7:4 8:14, 31:24 31:25, 123:1 123:3, 123:4 123:5, 123:6 129:16, 131:4 172:2, 172:3 182:11, 182:12 192:9, 192:10 218:3, 218:4 237:5, 237:6 261:1, 261:2 279:17, 279:18 324:8, 324:9 neumannc@gtl... 7:8 neurological	56:23 never 92:8 96:19, 133:5 154:8 new 1:1, 1:4 1:22, 2:4 2:13, 2:15 2:18, 2:19 2:22, 2:24 3:2, 3:9, 3:11 3:12, 3:15 3:19, 4:6, 4:7 5:8, 5:10 5:12, 5:13 5:15, 5:19 6:15, 7:12 10:13, 11:8 11:10, 12:9 12:12, 13:18 15:13, 20:10 21:9, 28:24 29:18, 30:12 30:14, 30:19 31:1, 38:10 41:10, 41:11 41:13, 42:5 42:11, 42:12 44:20, 50:7 52:13, 53:21 53:24, 55:15 56:9, 57:2 59:1, 59:22 60:13, 60:20 61:17, 62:22 63:4, 63:6 64:9, 64:18 64:25, 65:2 66:24, 67:10 68:24, 70:3 70:18, 71:6 73:1, 73:25 74:14, 74:16 74:17, 74:21 74:22, 75:3 75:4, 75:6 75:10, 75:19 76:6, 77:15 77:17, 77:19 77:20, 77:24 78:3, 78:9 78:11, 78:14 79:5, 79:7 79:9, 79:13 79:13, 80:17 83:17, 84:17 84:22, 84:24 85:1, 85:13 87:4, 87:7 87:22, 88:1 88:23, 89:6 91:20, 92:12	92:17, 93:13 96:1, 96:1 97:2, 97:4 98:11, 99:19 99:23, 101:18 101:22, 102:9 109:5, 110:7 110:20, 113:8 114:4, 114:20 115:14, 115:18 117:14, 119:8 119:9, 119:10 123:17, 124:6 124:20, 127:2 130:13, 130:21 130:22, 138:2 140:2, 140:9 140:25, 144:3 146:19, 147:4 147:5, 151:11 153:3, 153:5 167:3, 169:4 169:6, 176:1 176:9, 176:15 176:17, 176:19 176:20, 176:21 178:4, 178:11 178:19, 183:9 186:1, 188:6 188:7, 198:21 200:20, 202:25 216:11, 216:15 226:16, 229:21 231:20, 232:12 233:19, 234:5 234:9, 240:7 240:18, 245:8 245:25, 246:15 251:15, 252:16 262:13, 272:1 272:1, 275:23 275:25, 284:21 285:7, 285:11 285:18, 286:4 286:9, 286:22 291:16, 291:19 291:25, 292:3 292:9, 292:9 292:12, 292:15 292:24, 302:15 303:1, 312:4 312:8, 312:11 312:15, 313:1 323:18, 332:1 332:2, 332:9 332:22 newly-design... 300:8 newly-imposed 287:7 newly-proposed	58:6 news 87:6 281:3, 292:9 NG 19:6 NGL 7:2, 7:10 32:2, 123:9 128:17 NGO 62:8, 64:15 64:20, 66:4 68:9, 68:12 NGOs 108:16 108:17, 109:3 nice 215:14 Nicholas 10:3 293:2, 293:11 293:14 Nichols 74:2 74:3, 75:20 76:7, 76:8 76:20, 77:2 77:5, 77:13 77:18 Nick 282:22 284:4, 293:19 night 209:11 221:11 nine 29:7 53:20, 249:6 304:18 nitrate 207:18 208:4 nitrates 207:13 209:25, 210:2 nitric 209:16 nitrogen 12:22 14:3, 16:15 63:18, 73:6 80:6, 86:9 98:22, 106:1 168:17, 178:18 201:5, 202:2 203:18, 206:13 206:18, 211:12 242:13 Nizich 16:4 16:8, 16:11 NM 7:14, 11:16 17:20 NMAC 1:4, 10:23 13:2, 18:24 20:13, 332:3 NME 302:5 NMED 8:21, 9:1 9:12, 10:7 10:12, 11:1 11:24, 12:1 13:1, 14:1 15:1, 16:1 17:1, 18:1 18:21, 19:1 20:1, 43:23
---	--	--	---	---

44:16, 49:14 56:2, 59:11 61:24, 62:1 62:5, 63:11 63:16, 64:10 64:20, 66:5 69:2, 76:10 87:16, 88:12 90:11, 93:15 93:19, 94:16 95:11, 111:1 111:14, 111:19 119:16, 121:3 151:7, 161:4 161:6, 161:20 161:22, 161:25 162:8, 164:8 164:11, 164:11 167:5, 167:23 176:24, 177:5 177:19, 177:25 186:17, 194:24 197:7, 230:20 231:2, 232:24 240:9, 241:6 241:12, 241:13 248:25, 249:25 250:20, 272:3 276:13, 277:22 302:3, 302:5 304:5, 304:16 309:20, 310:14 313:19 NMED's 54:23 55:14, 59:18 62:2, 64:3 64:7, 66:4 66:11, 66:11 66:14, 68:1 69:13, 85:18 88:3, 90:16 98:25, 110:2 110:25, 111:6 111:18, 111:25 112:14, 113:3 151:16, 164:5 166:3, 260:13 306:10, 306:12 310:2 NMOGA 19:8 30:16, 30:20 35:12, 35:16 35:20, 37:10 37:15, 40:14 50:3, 50:6 50:23, 66:8 84:6, 84:11 84:18, 84:22 84:22, 85:2 85:17, 88:10 88:15, 89:14	90:2, 93:19 123:11, 161:5 172:9, 211:23 254:16, 263:25 264:4, 297:22 NMOGA's 34:13 37:19, 48:7 48:10, 59:17 65:22, 85:6 85:9, 86:10 91:13, 92:23 93:23, 99:11 NMSA 78:15 NMSU 291:17 NO2 14:8, 14:11 16:17, 19:11 207:10, 209:15 209:16 NOI 32:20 32:21, 33:1 33:3 Nolting 120:2 Non-EGU 14:15 non-Title 16:24 nonattainment 41:25, 47:9 48:1, 48:2 52:17, 67:11 105:16, 111:9 187:13, 245:11 245:20, 246:14 246:18, 246:21 246:23, 247:23 248:1, 248:4 250:2, 251:17 251:20, 251:22 251:24, 252:10 252:20, 257:4 257:8, 300:5 300:8, 300:11 300:23, 300:25 301:8, 301:9 301:11, 303:21 303:25, 307:13 307:19, 307:25 313:3, 313:8 313:10, 313:13 319:9, 321:15 noncancer 67:15 nonemitting 68:10, 68:21 nonindependent 233:15 nonpanelists 174:1 nonprofit 74:9 79:10 nonstandard 283:25 nontechnical 23:9, 24:1	288:13, 289:13 289:25 normalized 154:2 normally 215:11 222:7, 288:6 288:17, 288:24 North 3:4, 3:18 5:7, 141:2 Northeast 1:21 2:23, 4:7 Northern 176:9 176:21 Northwest 6:15 88:5, 88:8 101:24, 308:16 Northwestern 305:11 note 10:5, 28:3 33:10, 40:13 48:12, 66:13 68:11, 87:16 94:4, 102:7 189:14, 189:18 209:21, 232:16 253:13, 253:17 269:13, 313:12 330:18 noted 27:16 108:17, 163:14 notice 32:12 32:20, 103:22 103:23, 107:2 205:14, 238:8 noticed 288:1 notify 104:2 247:5 November 16:16 17:25, 18:16 NOx 11:20, 13:9 13:15, 13:23 14:3, 14:15 14:18, 16:16 18:17, 19:17 80:6, 80:11 119:14, 119:18 119:20, 119:24 121:4, 121:7 121:17, 168:18 168:22, 169:11 169:14, 201:13 202:9, 203:22 204:5, 206:4 206:25, 207:7 207:24, 209:11 209:12, 209:13 209:14, 209:15 209:18, 209:19 209:21, 209:23 210:1, 210:7 210:16, 211:15	232:6, 248:13 248:20, 249:14 258:23, 273:10 275:22, 276:21 276:25, 277:23 277:24, 280:19 285:21 NOy 209:14 209:14, 209:15 209:19, 209:22 NPS 20:10 20:14, 211:2 NPS-Air 4:13 4:17 NSPS 12:14 122:17 nuclear 141:21 141:24, 142:2 number 12:20 22:9, 27:9 27:11, 35:20 35:21, 39:24 40:13, 47:14 55:4, 60:14 76:2, 77:8 88:22, 91:11 92:22, 94:2 101:22, 102:3 103:13, 103:21 111:24, 116:18 116:23, 116:25 130:20, 130:21 196:12, 203:25 211:3, 215:14 239:4, 239:4 254:20, 254:21 306:7 numbers 15:17 38:11, 38:12 38:15, 38:16 116:19, 116:22 130:17, 157:6 161:16 numeric 74:19 numerical 117:17 numerous 44:4 45:3, 48:20 49:12, 232:12 234:10, 266:24 267:3 Nykiel 5:3, 8:7 30:3, 30:4 30:6, 73:13 73:16, 73:17 73:18, 73:19 78:24, 171:5 171:6, 180:25 181:1, 190:24 190:25, 212:24 212:25, 236:12	236:13, 255:23 255:24, 279:4 279:5, 315:10 315:11 0 O&G 11:16 17:11 OAI 11:8, 11:10 249:2, 249:16 249:18, 250:11 251:8, 262:16 304:7, 308:3 312:1, 313:16 OAR 18:2 oath 132:20 132:23 object 33:19 162:24 objected 39:25 160:12, 160:18 161:8, 161:13 162:25, 164:21 165:20 objecting 160:23, 161:17 165:6 objection 37:17 37:17, 40:13 160:6, 160:14 163:8, 163:21 164:4, 164:18 164:23, 165:22 253:16, 277:3 296:3, 296:5 objectionable 254:6 objections 34:5 40:5, 40:15 40:20, 160:8 161:3, 161:5 163:15, 163:17 164:7, 164:7 165:1, 211:22 253:19, 253:19 269:9, 270:19 273:5 objective 119:19 objectives 85:6 206:16, 206:22 objects 164:6 obligated 104:20, 105:25 119:1, 293:25 obligates 105:5 obligating 102:13 obligation 102:10, 102:20
---	---	---	--	---

Volume 1
9/20/2021

EIB Ozone Hearing

obligations 105:12	200:15	109:14, 109:17	175:16, 175:23	228:24, 229:4
observations 110:2, 110:24	offers 112:8	111:23, 112:3	180:12, 180:15	229:5, 229:9
obtain 118:20	112:10	113:4, 113:11	180:16, 180:20	235:19, 235:22
obtaining 251:22	office 2:12	113:15, 113:18	180:21, 180:23	235:24, 236:2
obvious 47:2	2:13, 2:17	113:20, 113:24	180:24, 181:1	236:3, 236:6
obviously 24:12	2:22, 4:13	114:3, 115:5	181:3, 181:6	236:7, 236:9
28:11, 37:1	4:18, 5:19	122:25, 123:6	181:9, 182:1	236:11, 236:14
100:5, 214:3	12:7, 13:23	129:16, 129:22	182:3, 182:4	236:17, 236:20
occasion 118:11	14:14, 17:9	131:1, 131:25	182:7, 182:10	236:23, 237:1
147:9	17:12, 18:17	134:25, 135:5	182:13, 182:20	237:3, 237:5
occasions	30:20, 31:10	135:10, 136:12	182:22, 182:24	237:7, 237:10
195:15	31:15, 72:24	136:18, 136:21	183:23, 184:2	237:16, 237:18
Occidental	109:19, 109:21	137:1, 138:23	184:5, 184:9	237:20, 237:23
96:10	187:15, 223:18	139:9, 139:13	184:13, 184:17	237:24, 238:2
occupied 62:16	278:25, 286:19	139:18, 142:12	184:19, 185:6	238:12, 238:15
64:22, 67:8	officer 1:11	142:20, 143:1	185:9, 185:13	238:18, 238:22
83:6, 83:6	2:2, 21:1	143:4, 143:8	185:18, 190:13	239:1, 239:3
occur 89:1	21:2, 21:14	145:9, 145:24	190:15, 190:16	239:10, 239:19
178:20	21:17, 21:20	146:2, 146:6	190:20, 190:21	240:2, 240:7
occurred 112:7	22:1, 22:8	146:14, 149:3	190:24, 191:1	242:17, 242:19
208:6	28:22, 29:2	149:9, 149:13	191:4, 191:8	242:25, 243:5
occurrence	29:4, 29:10	149:17, 151:24	191:20, 191:22	243:9, 243:14
89:19	29:12, 29:15	152:10, 152:14	191:23, 192:1	253:6, 253:10
occurrences	29:17, 29:22	152:17, 152:20	192:3, 192:5	253:12, 253:20
99:9	30:2, 30:5	154:19, 155:13	192:8, 192:11	253:25, 254:1
occurring	30:8, 30:11	156:11, 157:14	192:19, 193:3	254:9, 255:9
169:16, 210:10	30:14, 30:17	157:18, 158:9	193:9, 193:12	255:14, 255:16
occurs 94:19	30:22, 30:24	159:7, 159:18	195:7, 195:10	255:20, 255:21
104:11	31:2, 31:3	159:22, 159:24	197:1, 197:15	256:1, 256:5
OCD 93:13	31:6, 31:9	160:1, 160:5	197:19, 197:24	256:8, 256:9
93:16, 97:5	31:16, 31:19	160:16, 161:4	198:10, 199:10	260:19, 260:22
98:5	31:22, 31:25	161:8, 161:15	199:14, 199:24	260:24, 261:1
ocean 141:2	32:5, 32:8	161:23, 162:3	200:4, 200:9	261:3, 261:10
October 12:8	32:10, 33:5	162:6, 162:9	211:20, 212:2	261:12, 261:16
13:9, 17:13	33:7, 33:18	162:13, 162:16	212:11, 212:12	261:19, 261:21
17:23, 18:3	33:25, 34:10	162:18, 162:25	212:14, 212:15	261:24, 262:3
22:25, 23:23	34:11, 35:15	163:7, 163:10	212:18, 212:19	262:7, 263:7
187:20, 295:12	36:9, 37:1	163:12, 163:22	212:22, 212:23	263:8, 263:11
odors 147:11	37:6, 37:8	164:2, 164:13	212:25, 213:2	263:17, 263:21
offer 23:10	38:2, 38:8	164:15, 164:25	213:5, 213:7	263:23, 264:3
23:13, 34:14	38:14, 38:23	165:8, 165:10	213:9, 213:24	264:7, 264:10
40:17, 110:1	39:6, 39:17	165:18, 166:6	214:1, 214:3	264:13, 264:17
111:14, 127:23	39:18, 40:10	166:9, 166:13	214:5, 214:9	264:22, 264:23
131:21, 134:12	41:8, 53:7	166:16, 170:13	214:18, 214:21	265:2, 265:6
154:21, 160:11	53:12, 61:4	170:20, 170:21	215:1, 215:5	265:9, 265:18
160:13, 211:25	61:7, 61:11	171:2, 171:6	217:9, 217:10	265:23, 266:3
263:12, 267:15	69:14, 69:15	171:7, 171:12	217:15, 217:17	266:6, 267:15
269:16, 270:15	69:18, 69:23	171:13, 171:15	217:20, 217:23	267:18, 267:24
290:8	70:6, 72:16	171:17, 171:18	218:1, 218:3	268:2, 268:13
offered 23:16	73:12, 73:16	171:21, 171:22	218:5, 218:8	268:16, 268:20
25:7, 40:3	73:18, 78:24	171:25, 172:1	218:10, 218:16	268:23, 268:25
40:7, 111:6	79:3, 79:4	172:4, 172:5	218:19, 219:20	269:3, 269:6
127:4, 147:2	84:2, 84:9	172:9, 172:11	219:22, 219:25	269:13, 269:17
147:14	84:13, 84:14	172:15, 172:18	220:2, 222:23	269:18, 270:15
offering 39:23	97:8, 97:12	172:21, 172:24	223:2, 223:5	270:18, 270:25
72:1, 84:10	97:16, 97:21	173:3, 173:17	224:4, 225:6	271:5, 271:9
101:8, 112:5	98:17, 99:17	173:20, 173:24	226:7, 226:20	271:12, 273:14
112:20, 113:13	99:25, 101:10	174:7, 174:10	227:6, 227:16	273:20, 273:23
	101:14, 107:10	174:15, 174:25	227:19, 227:23	274:12, 274:17
	107:13, 107:16	175:3, 175:5	228:3, 228:8	274:19, 277:6
	109:7, 109:9	175:7, 175:12	228:12, 228:19	277:8, 277:15

278:6, 278:9	139:14, 159:15	119:21, 124:11	143:14, 146:13	98:6
278:15, 278:17	159:24, 164:14	124:18, 125:9	153:1, 155:4	OLSON 5:17
278:19, 278:21	171:8, 172:6	125:10, 125:25	158:8, 158:11	once 23:16
278:22, 279:1	172:11, 172:12	126:2, 126:7	161:4, 161:15	24:10, 28:14
279:3, 279:5	173:22, 174:16	126:7, 126:11	161:23, 163:7	155:4, 165:19
279:6, 279:9	175:8, 185:9	126:15, 135:20	164:13, 172:15	174:2, 190:3
279:10, 279:11	191:23, 214:2	135:22, 138:2	173:13, 174:7	193:19, 195:25
279:12, 279:13	218:8, 221:18	140:5, 140:10	175:3, 184:9	283:20, 325:23
279:15, 279:17	224:6, 228:20	141:18, 141:20	184:25, 185:17	327:22
279:19, 279:22	231:15, 236:11	142:1, 143:16	187:9, 193:2	one-second
280:3, 280:6	239:11, 239:13	143:24, 144:3	193:8, 194:14	224:15
280:7, 280:10	243:9, 243:17	144:13, 144:20	194:22, 195:5	one-time 89:19
281:13, 281:16	261:5, 264:13	144:21, 145:5	196:15, 197:4	one-year 246:1
281:18, 281:20	264:13, 265:2	153:7, 169:5	197:12, 198:15	ones 68:21
281:23, 282:3	278:15, 279:3	178:22, 201:4	199:17, 199:21	130:21, 150:21
282:12, 283:4	283:11	202:20, 202:22	199:25, 200:6	160:14, 161:16
283:13, 283:16	Ohio 16:23	204:12, 205:4	200:7, 200:8	161:17, 161:21
284:13, 284:19	16:24, 19:2	205:7, 205:15	201:15, 206:24	163:8, 262:19
287:16, 287:22	oil 1:4, 3:2	205:18, 206:23	215:1, 217:20	online 10:5
288:7, 288:14	12:7, 12:10	208:13, 208:22	218:1, 218:3	onshore 108:3
288:20, 289:11	12:13, 12:21	209:2, 209:8	224:1, 226:19	0000 12:9
289:19, 289:23	12:23, 13:9	211:5, 211:11	227:5, 227:7	12:11
290:16, 290:20	15:9, 15:10	213:17, 216:6	228:8, 228:14	0000a 12:13
290:24, 291:2	16:4, 16:8	216:18, 221:1	231:15, 236:11	12:14, 15:14
291:11, 293:1	16:11, 16:18	222:5, 222:5	241:22, 242:24	oops 207:21
293:5, 293:9	17:9, 17:10	227:13, 231:24	243:11, 243:17	229:18
295:9, 295:20	19:2, 19:9	232:9, 232:23	243:18, 246:17	open 109:1
296:8, 296:19	20:4, 30:15	233:4, 233:9	246:24, 248:8	145:19, 155:2
296:20, 297:3	30:19, 41:11	233:13, 233:24	251:7, 253:5	opened 60:3
297:5, 298:7	42:9, 42:12	257:13, 257:17	253:10, 253:20	60:5, 111:19
298:11, 311:2	42:16, 43:10	257:23, 258:4	253:25, 256:22	opening 8:2
314:15, 314:18	44:19, 47:7	258:8, 260:3	258:22, 260:22	8:3, 8:4, 8:5
314:23, 314:25	54:9, 55:2	260:10, 260:14	261:21, 262:15	8:6, 8:7, 8:8
315:2, 315:6	55:20, 56:7	262:12, 275:14	263:5, 263:5	8:9, 8:10
315:9, 315:12	56:18, 57:1	275:17, 275:17	264:13, 265:9	8:11, 8:12
315:15, 315:16	57:2, 57:7	276:22, 285:11	265:18, 265:20	8:13, 8:14
316:4, 316:16	57:10, 57:13	285:24, 286:4	267:18, 268:1	8:15, 27:19
323:3, 323:5	59:5, 59:22	286:18, 291:16	268:18, 269:25	32:15, 40:2
323:8, 323:24	61:19, 62:9	292:19, 298:12	271:17, 273:22	40:6, 40:24
323:25, 324:2	63:9, 63:25	298:13, 302:25	274:12, 274:17	41:1, 41:1
324:3, 324:6	64:8, 64:25	303:4, 303:11	274:19, 277:15	41:4, 41:7
324:8, 324:10	65:20, 66:25	305:14, 306:2	278:15, 279:3	53:9, 53:11
324:18, 324:20	67:14, 70:13	308:13, 309:10	289:11, 289:19	60:1, 60:2
324:22, 325:1	75:22, 77:8	309:15, 310:18	290:19, 291:8	61:5, 61:9
325:4, 325:14	77:15, 77:19	310:22, 314:11	291:13, 291:14	61:12, 69:16
326:1, 326:3	79:18, 79:18	327:11, 327:14	297:14, 297:16	69:19, 72:15
326:15, 326:17	79:23, 79:25	oilfield 85:22	298:10, 300:14	72:20, 73:14
326:21, 327:19	80:7, 80:10	99:9, 294:6	300:15, 301:13	73:17, 73:22
328:17, 329:6	80:15, 81:18	294:24	302:3, 302:3	79:1, 82:7
329:9, 329:15	82:21, 82:24	oilprice.com	304:9, 310:4	84:6, 84:11
329:19, 330:5	84:18, 84:22	141:7	314:14, 315:9	84:12, 98:3
330:12, 330:17	84:24, 85:1	okay 21:1	319:3, 319:19	99:19, 100:20
330:21	85:13, 96:14	33:25, 38:2	319:23, 321:9	100:22, 100:25
Offices 187:17	98:19, 99:19	39:14, 40:24	323:3, 323:23	101:8, 101:13
official 24:18	101:19, 101:21	72:21, 97:23	325:4, 327:17	102:3, 102:4
25:1	103:4, 103:7	101:6, 128:8	329:18	107:11, 107:15
offset 63:18	103:10, 105:1	129:21, 131:25	old 139:25	109:7, 109:11
275:24	109:6, 110:6	133:17, 135:16	325:9	109:15, 109:25
offsets 252:13	110:9, 110:12	137:7, 139:18	older 67:3	113:13, 114:1
oh 13:20, 84:10	110:20, 111:12	139:24, 140:12	244:7	114:16, 122:23
101:5, 131:3	116:7, 116:10	140:21, 142:15	olfactory 96:17	123:2, 123:4

129:20, 137:10 166:18 operate 124:9 177:24, 181:23 201:17, 302:5 operated 81:17 81:21, 203:15 203:16, 308:11 operates 115:14 116:6, 117:13 306:14 operating 7:2 7:14, 12:16 12:18, 65:9 94:2, 107:21 123:10, 180:7 189:13 operation 118:3 118:17, 118:25 127:2, 176:10 211:2, 222:6 306:23 operational 230:8 operations 12:19, 16:24 17:2, 43:7 52:6, 54:9 56:8, 56:21 57:1, 57:7 57:10, 67:23 90:4, 108:19 108:23, 110:13 114:20, 116:10 116:16, 116:19 116:25, 118:2 118:5, 119:5 119:25, 123:13 124:6, 124:13 125:19, 125:25 126:21, 127:16 153:7, 153:20 176:20, 178:22 178:23, 205:8 208:13, 230:5 232:9 operator 65:4 76:15, 108:24 176:19 operator-rep... 65:7 operators 51:4 51:7, 51:15 52:5, 52:9 59:12, 60:9 68:23, 69:7 76:10, 78:2 84:23, 118:8 125:24, 143:24 144:3, 233:14 opinion 63:23	275:20, 283:3 292:23, 313:14 opponents 291:22 opportunities 15:3, 23:10 45:5, 152:5 290:7 opportunity 33:13, 37:16 39:11, 45:3 61:12, 69:11 73:9, 73:22 78:7, 79:8 90:3, 107:19 114:15, 122:16 129:24, 130:4 136:11, 137:8 153:16, 224:6 286:9, 287:11 287:11, 296:25 316:11 oppose 81:11 opposed 36:5 101:11, 181:17 288:3, 288:19 289:21 opposition 295:7 optimal 78:18 optimize 67:23 options 13:7 15:21, 17:12 122:5 oral 160:18 251:16 orally 27:7 orange 301:24 order 10:16 24:10, 26:22 27:23, 28:19 28:20, 41:5 41:5, 44:16 44:24, 49:5 54:4, 63:4 94:22, 100:20 100:21, 100:22 101:1, 101:4 121:14, 131:11 133:17, 133:18 134:1, 145:18 155:8, 156:22 156:25, 157:11 157:11, 166:22 170:14, 174:12 196:18, 229:13 231:19, 232:1 232:14, 239:22 247:18, 249:16 266:9, 284:3 284:22, 285:1	285:8, 317:22 318:11 order's 329:11 orders 215:10 215:16 ordinary 147:6 organ 201:1 organic 12:21 56:15, 73:5 80:6, 98:23 98:24, 106:1 168:18, 201:1 201:3, 204:3 211:9, 213:14 organization 61:16, 74:10 146:21 organizations 54:2, 71:15 71:17, 79:12 82:2, 82:14 83:11, 233:13 organize 113:5 organizer 149:24 orient 116:12 original 25:25 26:2, 26:4 37:3, 38:21 38:24, 43:16 310:6 originally 80:25 origins 204:10 Orth 1:11, 2:3 21:1, 21:2 21:14, 21:17 21:20, 22:1 22:8, 29:2 29:10, 29:15 29:22, 30:2 30:8, 30:14 30:22, 31:2 31:6, 31:16 31:22, 32:5 32:10, 33:7 33:25, 34:11 36:9, 37:6 38:2, 38:14 38:23, 39:6 39:18, 40:10 53:7, 61:4 69:15, 69:23 72:16, 73:12 78:24, 84:2 84:9, 97:8 97:12, 97:16 97:21, 99:25 107:13, 109:9 113:11, 113:20 113:24, 114:3	115:5, 122:25 129:16, 131:1 131:25, 134:25 135:5, 135:10 136:12, 136:18 136:21, 137:1 138:23, 139:9 139:13, 142:12 142:20, 143:1 143:4, 143:8 145:9, 145:24 146:2, 146:6 146:14, 149:3 149:9, 149:13 149:17, 151:24 152:10, 152:14 152:20, 154:19 156:11, 157:9 157:18, 159:7 159:18, 159:24 160:1, 160:5 161:4, 161:8 161:15, 161:21 161:23, 162:6 162:9, 162:13 162:16, 162:18 162:25, 163:7 163:10, 163:22 164:2, 164:25 165:8, 165:18 166:6, 166:9 166:13, 170:13 171:2, 171:7 171:13, 171:15 171:18, 171:22 172:1, 172:5 172:11, 172:15 172:18, 172:21 172:24, 173:3 173:17, 173:20 173:24, 174:7 174:15, 174:25 175:3, 175:7 175:12, 175:16 180:12, 180:16 180:21, 180:24 181:3, 181:6 181:9, 182:1 182:4, 182:10 182:13, 182:20 182:24, 183:23 184:2, 184:5 184:9, 184:13 184:19, 185:9 185:13, 185:18 190:13, 190:16 190:21, 190:24 191:1, 191:4 191:20, 191:23 192:1, 192:3 192:5, 192:8	192:11, 193:9 195:7, 195:10 197:1, 197:15 197:19, 197:24 198:10, 199:10 199:14, 199:24 200:4, 200:9 211:20, 212:2 212:12, 212:15 212:19, 212:23 213:2, 213:5 213:24, 214:1 214:5, 214:9 214:18, 214:21 215:1, 215:5 217:10, 217:15 217:17, 217:20 217:23, 218:1 218:3, 218:5 218:8, 218:10 218:16, 219:22 220:2, 222:23 223:2, 223:5 224:4, 225:6 226:7, 226:20 227:6, 227:16 227:19, 227:23 228:3, 228:8 228:12, 228:19 228:24, 229:5 229:9, 235:19 235:24, 236:3 236:7, 236:9 236:11, 236:14 236:17, 236:20 236:23, 237:1 237:3, 237:5 237:7, 237:10 237:16, 237:20 237:24, 238:2 238:12, 238:15 238:18, 238:22 239:1, 239:10 242:19, 243:5 243:9, 243:14 253:10, 253:20 253:25, 254:9 255:9, 255:16 255:21, 256:1 256:5, 256:8 260:19, 260:22 260:24, 261:1 261:3, 261:12 261:16, 261:19 261:21, 261:24 262:3, 263:8 263:11, 263:17 264:3, 264:7 264:13, 264:23 265:2, 265:6
---	---	---	---	--

265:9, 265:18	313:7	107:23, 107:25	119:12, 119:17	232:8, 234:7
265:23, 266:3	outreach 10:22	108:2, 108:4	127:11, 150:2	234:11, 239:7
266:6, 267:18	28:1, 44:13	108:5, 108:8	153:6, 158:17	239:7, 242:7
267:24, 268:13	158:20, 160:25	108:15, 108:19	158:18, 159:13	242:13, 243:20
268:16, 268:20	161:11, 228:5	108:20, 108:21	159:17, 167:21	244:6, 244:10
268:25, 269:3	231:1, 231:11	108:22, 108:25	168:12, 168:13	244:12, 244:12
269:6, 269:17	232:15, 232:20	109:1	168:14, 168:17	244:14, 244:24
270:18, 271:5	234:6, 234:18	Oxy's 59:13	169:7, 169:9	246:6, 246:9
271:9, 271:12	323:1	oxygen 80:11	169:11, 169:12	246:14, 246:18
273:20, 274:12	outright 50:6	ozone 1:5, 8:22	169:13, 169:18	247:25, 248:10
274:17, 274:19	outside 111:10	10:11, 10:12	169:22, 169:25	248:15, 248:17
277:6, 277:15	111:12, 202:12	10:12, 10:22	173:12, 178:3	248:25, 249:1
278:6, 278:9	202:17	11:17, 11:17	178:18, 178:24	249:4, 249:8
278:15, 278:19	outskirts	11:18, 11:20	179:1, 179:11	249:11, 249:19
278:22, 279:1	246:16	12:21, 12:21	179:11, 179:14	249:21, 249:23
279:6, 279:9	overall 51:16	13:8, 14:15	179:15, 179:17	250:1, 250:5
279:11, 279:13	88:21, 225:11	18:15, 20:10	179:18, 179:19	250:9, 250:12
279:15, 279:17	230:5	21:6, 27:25	179:22, 180:2	250:15, 250:17
279:19, 279:22	overestimated	28:1, 41:10	181:16, 187:8	250:23, 251:6
280:3, 280:7	66:7	41:14, 41:17	187:18, 187:19	251:10, 251:13
281:13, 281:16	overlook 92:15	41:19, 42:6	187:22, 188:1	252:22, 256:15
281:23, 282:3	overlooked 77:5	42:17, 43:20	188:4, 188:4	256:18, 256:22
282:12, 283:13	86:10	44:25, 45:16	188:7, 188:9	257:6, 257:9
283:16, 284:13	overly 90:9	45:19, 45:25	188:10, 188:10	258:15, 258:17
287:16, 288:7	overregulation	46:1, 46:4	188:13, 188:14	271:18, 271:23
288:20, 289:11	140:18, 143:22	46:5, 46:8	188:18, 188:21	272:4, 277:23
289:19, 289:23	oversee 230:3	46:12, 46:14	188:24, 188:25	281:4, 281:6
290:16, 290:20	overseeing	46:23, 47:4	189:2, 189:2	281:9, 286:2
290:24, 291:2	240:15	47:21, 47:24	189:4, 189:8	286:25, 287:2
291:11, 293:1	oversees 240:19	48:23, 52:17	189:12, 189:17	287:6, 298:2
293:5, 293:9	oversight 76:24	52:20, 54:4	190:4, 190:5	298:3, 298:15
295:9, 296:8	230:9	54:5, 54:10	190:7, 194:18	298:17, 299:4
296:20, 297:3	overstated	59:6, 60:15	199:5, 200:17	299:12, 299:25
298:7, 314:18	63:24, 280:24	60:23, 63:3	200:19, 201:4	301:5, 302:5
314:25, 315:2	overview 78:8	63:6, 63:19	201:6, 201:11	302:11, 302:16
315:6, 315:12	88:20, 235:7	64:7, 64:9	201:14, 201:25	303:1, 303:2
315:15, 316:4	OWL 7:2, 123:10	67:10, 70:10	202:6, 202:12	303:12, 303:15
316:16, 323:5	owner 18:9	73:1, 74:7	202:14, 203:6	304:7, 305:7
323:25, 324:3	50:7, 291:19	74:16, 74:17	203:10, 204:4	306:6, 306:14
324:6, 324:8	owners 76:9	74:25, 75:11	204:7, 204:21	308:8, 308:10
324:10, 324:18	78:2	75:13, 75:18	205:20, 205:22	309:10, 309:19
324:22, 325:1	ownership 127:5	75:23, 75:25	206:5, 206:13	309:21, 310:1
325:4, 326:1	owns 115:15	76:2, 76:3	206:17, 206:18	310:11, 310:16
326:17, 327:19	Oxidants 10:11	76:6, 77:3	206:24, 207:2	310:21, 310:23
329:6, 329:15	oxidation	77:8, 77:16	207:3, 207:16	311:14, 312:1
329:19, 330:12	169:11	77:17, 77:19	207:19, 207:22	312:14, 312:19
330:17, 330:21	oxide 86:9	77:21, 77:22	207:23, 208:2	313:8, 313:13
OSAT 11:20	168:17, 201:5	78:4, 78:10	208:5, 208:7	313:17, 314:2
ostensibly	203:18, 211:12	80:3, 80:12	209:8, 209:12	314:9, 314:13
315:25	oxides 12:22	80:12, 83:25	210:1, 210:6	317:3, 317:24
OTC 14:2, 14:2	14:3, 16:15	85:17, 86:8	210:13, 210:15	319:6, 319:7
ought 105:12	73:6, 80:5	86:18, 86:20	210:23, 210:25	319:8, 319:11
164:1, 288:16	98:22, 106:1	87:25, 88:1	211:3, 211:7	319:11, 320:3
outdoors 221:10	202:2	88:13, 88:20	211:11, 211:12	320:10, 320:12
244:8, 244:9	Oxy 6:2, 31:5	88:23, 98:22	211:15, 211:16	320:22, 321:24
244:11	55:1, 55:3	102:5, 102:11	213:16, 216:15	323:12, 326:7
outlined 46:11	59:9, 62:8	102:14, 105:1	218:21, 219:15	326:10
200:23, 251:19	64:14, 64:20	105:24, 106:5	221:6, 224:12	ozone-forming
319:5	66:4, 68:9	106:8, 106:13	225:21, 227:2	208:6
outlines 232:17	69:6, 83:10	107:4, 111:2	227:12, 227:20	ozone-producing
251:23, 310:11	107:17, 107:21	111:7, 111:15	232:6, 232:7	215:21

P	182:16, 184:22 192:14, 214:12 218:12, 228:10 228:11, 237:13 261:7, 264:8 264:18, 264:24 279:24, 324:14 panelists 26:8 26:9, 26:17 26:18, 100:3 184:21, 184:25 papers 266:24 paperwork 135:18, 136:5 paragraph 155:16 Paranhos 3:22 8:4, 29:10 29:11, 29:13 61:5, 61:7 61:9, 61:10 61:14, 69:15 170:21, 171:8 180:16, 190:17 191:5, 212:16 212:17, 235:25 236:1, 255:17 256:2, 278:19 278:20, 314:25 315:1 parent 210:2 park 4:10, 7:22 9:8, 20:8 20:12, 29:23 29:25, 32:20 32:22, 32:24 55:7, 55:8 72:18, 72:23 72:25, 72:25 73:3, 73:7 91:2, 159:12 198:19, 198:23 199:1, 199:2 199:6, 200:14 200:20, 201:2 201:6, 201:19 201:21, 202:11 202:16, 202:17 202:17, 203:2 203:2, 203:3 203:4, 203:7 204:13, 204:24 204:24, 204:25 205:9, 205:13 205:24, 206:15 206:21, 209:9 210:4, 210:14 210:25, 211:4 211:13, 211:16 212:5, 212:6 212:8, 214:7	219:2, 219:3 219:16, 220:5 220:10, 220:16 220:17, 221:13 221:20, 222:3 222:9, 223:18 226:5, 226:10 227:21, 246:15 313:10, 313:13 parks 53:22 72:24, 198:16 201:16, 201:18 201:23, 201:24 201:24, 202:15 202:25, 204:1 204:20, 205:17 208:15, 211:3 221:15, 222:1 222:1, 222:7 Parrino 8:18 134:3, 139:3 139:4, 139:5 139:6, 139:12 139:17, 139:17 139:20, 139:23 139:24, 142:12 142:13, 142:15 part 12:9 12:13, 13:2 13:3, 13:17 13:19, 15:14 17:10, 18:24 25:6, 33:1 35:22, 36:23 39:1, 43:20 44:22, 76:11 86:10, 87:7 88:4, 88:6 88:7, 88:14 90:6, 94:1 94:14, 97:24 101:24, 103:23 123:23, 130:18 138:14, 140:16 156:16, 173:6 180:5, 210:19 226:12, 227:12 231:1, 234:17 235:2, 248:1 249:24, 250:22 250:23, 253:18 256:19, 260:4 272:17, 277:12 286:10, 287:24 288:4, 288:21 288:25, 290:1 295:2, 298:12 303:5, 303:10 305:11, 309:14 318:12, 319:14 320:23, 328:5	participant 79:15 participate 79:15, 107:19 participated 79:17, 85:5 144:21, 313:19 participates 240:18 participating 107:11, 249:19 participation 46:4, 70:19 particular 22:19, 25:8 52:6, 63:11 71:21, 76:15 85:23, 88:15 89:8, 115:5 120:14, 122:6 122:7, 123:22 133:15, 155:25 203:14, 209:20 216:14, 245:4 particularly 27:20, 73:2 95:8, 103:14 105:18, 164:1 216:20, 260:10 particulate 178:18, 242:14 parties 22:9 22:11, 24:3 24:3, 24:13 27:22, 31:20 32:11, 32:15 33:11, 34:16 35:21, 35:24 36:8, 40:13 45:8, 50:22 53:20, 71:19 72:3, 78:1 83:11, 84:15 85:8, 92:8 114:5, 115:6 131:8, 137:10 155:7, 155:21 156:2, 156:17 160:6, 160:7 163:19, 164:18 165:7, 235:6 253:9, 253:15 253:21, 255:12 289:2, 295:22 296:17, 311:4 327:22, 328:4 328:18, 329:25 332:16 partner 15:3 31:14, 109:20 partners 7:2	7:10, 13:7 15:21, 32:2 61:21, 62:6 62:8, 64:15 97:6, 98:16 123:9 Partners-Ins... 15:23 Partnership's 48:6 parts 126:25 127:14, 187:18 187:24, 188:2 188:11, 189:15 243:21, 243:24 243:24, 280:17 287:1, 299:13 party 24:9 26:7, 26:15 27:8, 28:5 40:23, 40:25 100:4, 131:6 132:10, 132:11 132:24, 164:6 235:9, 296:5 296:22 party's 34:25 Paseo 3:9, 5:18 Paso 6:18 114:7, 246:16 Pasqual 81:8 83:18 pass 54:14 61:1, 134:16 179:20, 188:21 189:3, 189:5 189:9, 195:19 196:6, 196:9 196:18, 232:3 232:5, 292:14 passage 125:11 passed 28:13 317:10 passing 54:18 196:2, 285:5 passwords 25:21 pastor 10:3 293:11, 293:14 293:19, 295:9 path 10:13 46:5, 46:8 46:12, 239:7 249:24, 250:6 250:10, 251:16 256:17, 257:6 257:9, 257:11 258:15, 258:18 309:19, 309:22 310:2, 310:6 310:13, 313:24 pattern 207:15
----------	--	---	---	---

patterns 207:5 304:21 pause 39:16 40:22 pay 87:20 141:13, 294:18 294:19, 294:22 payroll 115:20 pays 115:20 PCTF 17:15 17:16 PDF 226:15 peace 74:20 peak 211:7 peaked 225:14 peaking 208:1 peaks 207:22 208:5, 208:5 pediatrician 139:24 peer-reviewed 56:17, 64:17 68:16 pending 40:9 Penn 16:22 Pennsylvania 12:15, 12:17 12:18, 12:19 13:21, 13:22 121:7, 130:12 130:19 people 27:12 57:3, 57:4 57:9, 67:1 70:13, 74:20 78:23, 82:24 93:24, 142:3 146:22, 147:7 147:19, 150:6 153:14, 165:6 195:20, 195:24 196:1, 220:7 244:7, 292:19 292:20, 292:21 Peralta 3:9 5:18 percent 41:20 46:25, 47:16 56:4, 56:6 66:11, 77:17 84:25, 89:16 89:22, 93:8 95:12, 102:14 104:22, 105:4 111:8, 117:24 117:25, 119:13 125:14, 141:23 154:16, 169:4 178:13, 196:8 196:8, 248:16 249:9, 265:8	271:23, 284:25 286:5, 299:14 299:25, 300:4 301:24, 302:1 302:9, 308:8 308:12, 308:25 314:9, 317:24 318:2, 318:3 318:6, 319:18 320:4, 320:12 320:23, 320:25 321:17 perfect 33:9 33:10, 98:1 perfectly 134:13, 135:9 perform 180:4 186:11, 189:19 performance 11:13, 12:9 12:9, 12:12 12:13, 13:18 15:13, 145:4 performed 60:5 144:12, 188:25 189:4, 189:11 performs 186:15 189:16 period 80:17 81:24, 131:18 179:21, 203:22 209:23, 234:22 285:14 periodic 244:25 periods 205:20 252:1, 301:25 peripheral 86:22 Permian 64:17 65:3, 65:15 144:9, 150:1 150:16, 150:25 151:14, 203:20 233:17, 303:5 permission 113:16, 231:15 231:16 permit 12:16 12:18, 16:23 48:14, 103:21 130:12, 167:11 230:17, 230:18 permits 77:15 77:21, 103:11 120:12 Permits")164 16:24 permitting 12:24, 12:24 103:11, 103:16 120:3, 128:17	130:8, 230:4 230:8, 252:11 252:13, 287:8 perpetuate 76:25 persistence 75:25 persistent 209:22 person 26:13 140:1, 142:21 267:13 personnel 188:20, 189:1 189:5, 189:8 189:11, 189:19 190:1, 195:20 195:21 persons 67:13 perspective 72:11, 81:9 143:20, 272:19 pertain 240:21 276:8 pertains 259:17 petition 21:4 22:15, 22:22 27:21, 46:19 235:3, 235:7 262:23, 283:18 petitioner's 288:22 petroleum 5:15 13:5, 17:22 17:25, 30:25 96:10, 100:1 101:17, 141:16 142:5, 178:23 Ph.D 8:22 58:17, 166:21 166:25, 167:19 167:20, 172:17 phase 45:6 77:10, 81:14 81:16, 94:13 94:15 phase-in 108:13 phase-out 95:3 PHOEBE 2:5 Phoenix 3:5 photochemical 10:11, 11:4 11:8, 11:10 43:17, 47:20 167:14, 168:15 169:17, 169:19 170:3, 170:5 173:10, 250:15 254:18, 299:16 301:6, 302:24 307:3, 307:6	307:16, 307:22 309:18 Photometric 179:14 phrased 85:23 physical 58:18 153:12, 169:20 physically 10:5 Physicians 56:13 Physics 266:18 pick 215:14 picture 88:22 89:3, 194:23 204:18, 206:8 223:15 piece 50:19 pieces 36:4 89:3, 269:16 pig 118:9 127:6, 129:4 pigging 12:19 16:24, 17:2 17:5, 118:12 pigs 118:7 pink 203:21 pipeline 6:19 14:3, 17:2 17:5, 94:6 110:18, 114:9 115:15, 115:25 117:2, 118:7 118:19 pipelines 94:5 117:20, 118:9 118:14, 118:14 place 3:23 27:2, 38:21 42:9, 91:21 92:2, 116:16 188:11, 188:12 204:4, 312:11 321:21 placement 130:10 places 62:16 64:22, 67:8 74:11, 111:10 188:2, 223:22 plan 11:25 12:15, 12:18 17:11, 33:4 41:17, 46:5 46:8, 46:9 46:12, 52:7 102:16, 102:16 102:20, 105:6 105:9, 105:12 105:20, 164:22 232:15, 239:8 240:17, 248:19	249:2, 249:12 249:16, 250:4 250:7, 250:22 256:14, 256:20 256:21, 256:22 256:23, 257:3 263:3, 271:24 272:4, 272:6 272:20, 273:25 274:1, 274:2 274:8, 274:10 274:23, 277:9 277:13, 277:13 307:24, 311:13 311:17, 312:25 314:1, 314:8 316:19, 318:23 322:2, 322:4 322:9, 322:15 322:18, 322:20 322:20, 322:21 322:23, 326:7 328:18 planet's 54:7 planned 33:3 94:22 planning 17:9 118:23, 124:20 167:9, 187:16 230:4, 230:7 241:4, 251:21 252:5, 252:10 264:11, 313:8 319:5, 322:17 329:14 plans 105:14 105:17, 111:4 151:7, 240:16 250:1, 306:12 306:25, 310:12 plant 116:23 117:5, 118:11 169:1 plants 12:16 117:8, 142:7 168:24, 178:22 178:22, 178:23 platform 11:5 22:13, 25:10 26:21, 27:4 27:12, 28:9 28:9, 28:10 28:10, 28:15 84:4, 113:9 132:2, 134:8 134:9, 134:15 134:19, 136:14 138:25, 139:4 145:19, 152:4 155:3, 290:4 play 215:9
--	---	--	---	--

Volume 1
9/20/2021

EIB Ozone Hearing

playgrounds 66:20 playing 83:19 plays 115:24 PLC 3:4 pleadings 22:20 please 23:3 23:7, 23:14 23:16, 23:19 23:24, 23:24 26:16, 27:3 27:15, 28:16 28:21, 41:3 69:24, 73:16 100:13, 132:10 132:12, 132:17 133:13, 133:15 134:10, 134:19 135:1, 135:5 136:22, 137:2 139:11, 142:14 143:6, 146:3 149:10, 149:14 152:2, 152:6 152:11, 152:15 158:2, 158:12 158:14, 159:19 161:16, 166:7 167:16, 168:11 170:18, 174:19 175:9, 175:13 176:12, 177:12 179:25, 182:16 182:17, 185:10 185:14, 185:16 192:15, 200:12 214:14, 215:2 215:6, 218:13 229:1, 230:12 231:10, 237:14 239:16, 240:23 243:4, 261:8 265:20, 265:24 266:7, 279:25 282:20, 284:7 284:10, 287:20 290:18, 290:25 293:6, 296:24 300:14, 324:15 328:5, 328:11 328:13 pleased 55:8 86:12, 90:11 91:15, 93:18 pleasure 175:1 plot 207:21 plotted 207:19 Plunger 15:23 plus 169:10 196:8, 209:15 209:16	PM 242:16 PM10 178:18 242:16 PM2.5 18:15 pneumatic 17:9 17:10, 17:11 17:13, 17:14 17:15, 18:2 18:20, 58:9 58:22, 59:1 59:3, 62:3 62:18, 68:7 68:11, 68:14 68:17, 68:19 81:14, 81:16 108:11, 154:18 294:13 pneumatics 17:18, 17:20 55:9, 59:7 59:15, 94:8 94:9 point 14:5 36:7, 36:12 40:5, 112:5 117:9, 138:13 155:6, 173:13 185:3, 200:14 210:12, 213:13 221:7, 226:2 238:5, 238:9 254:13, 296:14 315:23, 328:22 pointed 63:12 104:3, 137:25 278:3, 297:24 points 83:8 102:3, 108:18 130:5, 210:7 299:11 policy 4:2 29:16, 29:19 39:11, 54:22 69:21, 70:5 70:15, 70:16 70:20, 71:9 71:12, 71:13 83:4, 112:15 230:8, 288:10 289:14, 321:23 322:13 politically 151:21 pollutant 103:13, 120:21 168:15, 179:5 202:7, 245:4 245:8, 245:12 246:5, 246:6 pollutants 1:5 13:17, 16:13	20:4, 21:6 41:11, 41:18 44:25, 56:9 56:17, 58:4 58:11, 58:24 58:25, 60:3 63:13, 66:22 80:7, 82:9 82:17, 82:21 104:1, 119:18 153:7, 178:15 178:20, 202:15 208:6, 210:3 242:10, 242:12 242:12, 242:13 243:19, 247:4 257:14, 258:5 298:14, 309:3 pollution 14:15 53:3, 54:15 54:16, 56:20 61:19, 62:9 63:8, 63:25 64:24, 75:1 75:6, 75:18 75:25, 76:3 76:13, 78:3 103:1, 104:11 146:16, 147:4 147:15, 147:17 147:23, 150:9 150:16, 150:18 151:6, 151:8 151:18, 153:10 153:18, 154:17 177:17, 179:4 179:11, 260:15 285:18, 286:2 287:1, 287:3 287:6 ponds 124:14 populate 157:2 populated 183:17 population 72:9 178:1, 183:13 populations 70:12 portable 219:6 portion 247:7 327:6 portrayed 104:24 posed 78:21 position 95:18 104:19, 173:8 271:20, 298:23 315:23, 322:17 position's 106:21 positioned	112:15 positions 92:7 138:5, 176:18 198:20, 230:17 241:2 possibility 221:1, 251:11 possible 24:6 25:8, 54:4 74:15, 78:17 91:6, 199:8 251:7, 272:9 277:25, 286:23 Post 2:13, 4:13 4:18, 5:19 post-flash 126:4 post-hearing 22:25, 24:13 34:18 post-pandemic 95:9 posted 22:21 48:5, 49:14 234:24 potent 54:6 80:15, 80:16 286:12 potential 15:19 65:23, 72:8 103:12, 103:25 119:20, 119:23 126:16, 215:20 258:25, 272:13 303:24 potentially 95:21, 99:8 323:13 pounds 48:19 Povijua 71:8 71:13 Powell 19:22 19:23, 43:8 43:10 power 72:12 95:3, 141:21 141:24, 142:2 146:20, 153:4 178:22 powered 58:23 powerful 147:16 PowerPoint 17:5 20:12, 20:15 113:23, 199:9 295:21, 296:1 296:2, 297:4 301:21 powers 147:21 ppb 208:17 208:18 PPM 187:18	ppv 208:17 208:18 practicability 120:10, 120:17 practicable 24:5, 285:12 practical 68:12 69:10, 107:20 108:13, 109:4 practice 82:6 96:12, 96:13 120:20 practices 16:4 85:16, 86:8 94:2, 98:10 148:6, 148:11 180:8, 313:23 pray 138:9 146:23 Pre-Petition 10:23 precious 146:22 precision 178:14, 186:14 precursor 1:5 20:10, 41:10 41:18, 46:14 54:10, 63:3 74:6, 75:23 77:4, 80:4 83:25, 105:24 119:18, 153:6 168:16, 168:17 168:20, 232:8 298:14, 303:3 precursors 12:21, 21:6 44:25, 52:20 54:4, 59:6 70:10, 77:9 77:16, 77:21 85:17, 86:9 98:22, 111:3 111:7, 111:15 127:12, 251:6 predicate 107:7 predicated 107:7 predict 169:7 169:18, 173:12 predicted 141:11, 281:6 predicting 47:21 predominant 75:23, 88:23 88:24 predominantly 168:22 prefer 144:24 preference
--	---	--	--	--

95:12, 160:15 prefiled 155:25 160:20, 230:22 244:2, 289:1 289:5, 289:10 289:12, 289:14 297:19, 298:22 prehearing 37:18, 131:7 preliminary 18:11, 226:4 premature 35:4 38:7, 253:15 premised 298:24 preparation 115:9 prepare 267:5 269:19, 269:25 270:5 prepared 28:20 155:7, 159:13 268:4, 295:20 329:23 preparing 19:12 262:23 prepetition 51:10, 234:18 prepetitioned 234:19, 234:24 prescribe 250:4 prescribed 42:6 presence 89:2 202:3, 204:5 present 21:10 32:13, 55:18 61:12, 73:22 74:4, 76:7 88:3, 114:15 122:14, 141:23 177:16, 179:20 200:17, 267:23 296:2, 296:5 presentation 10:18, 10:19 10:22, 17:5 20:12, 20:15 40:16, 41:2 114:18, 116:11 121:23, 129:19 159:13, 164:23 199:4, 199:9 199:20, 199:22 200:2, 204:11 211:18, 220:1 223:23, 232:17 275:4, 314:20 presentations 116:11, 118:6 presented 24:3 33:23, 37:5 63:2, 72:5	93:21, 120:23 127:19, 138:7 138:11, 155:24 203:4, 210:16 216:5, 218:20 223:13, 250:19 275:8, 276:5 presenter 26:10 26:13, 145:11 199:11, 199:15 297:1 presenters 200:24 presenting 71:7 130:6 presently 91:25 preserve 38:10 94:22 president 67:17 286:19 President's 17:10 pressing 61:22 pressures 188:22 pretreatment 124:17 pretty 124:5 197:11 prevalent 130:18 prevent 44:20 60:22, 74:7 103:1, 104:9 231:25, 234:1 244:4 preventative 67:24 prevention 86:20, 284:23 previous 42:24 143:16, 154:5 193:23, 200:24 202:1, 243:23 301:25 previously 206:3, 254:3 297:8, 297:24 price 141:8 141:12, 141:16 142:7, 142:9 142:11, 142:18 primarily 101:23, 103:6 215:8, 216:22 primary 22:4 63:10, 63:17 111:7, 119:12 206:16, 215:18 244:3, 244:23 248:16, 320:4	Prime 14:3 14:19 principal 43:14 93:23, 93:23 129:6, 242:12 principals 71:4 304:5 principles 313:23 prior 25:17 37:19, 118:17 321:21 priorities 120:17, 257:16 prioritize 151:17, 262:18 priority 115:1 121:22, 159:9 pristine 222:8 222:9 privilege 113:21, 297:4 297:6 PRO 17:2, 17:7 proactive 85:16 249:20, 313:2 319:9 proactively 111:3 probability 178:13 probably 94:9 104:5, 164:20 194:1, 220:13 254:7, 258:14 271:9, 274:5 309:9, 325:6 325:21 problem 37:22 74:8, 74:16 74:17, 75:1 75:11, 76:6 77:22, 78:5 78:10, 95:24 134:15, 255:1 303:16, 303:18 problem-solving 145:1 problematic 95:20 problems 37:4 48:17, 96:8 244:14, 277:14 330:1 procedural 238:8, 275:3 procedures 21:8 38:25, 67:24 94:3, 101:24 110:9, 180:7 proceed 84:6	128:5 proceeding 24:18, 39:20 51:1, 53:16 53:21, 60:12 60:20, 61:13 75:14, 79:7 79:9, 79:16 79:17, 80:20 83:20, 83:24 93:25, 104:17 107:1, 107:2 109:24, 111:3 112:5, 112:20 113:5, 168:1 177:2, 186:20 230:23, 241:9 267:6, 267:17 269:20, 270:1 270:6, 270:16 273:9 proceedings 1:8 112:6, 331:4 332:11 process 16:14 18:18, 22:13 23:1, 23:3 24:13, 33:23 44:15, 45:3 45:5, 85:5 94:24, 107:23 118:21, 118:24 130:12, 173:7 173:9, 173:10 180:6, 189:23 208:3, 233:8 233:21, 235:8 238:9, 245:3 245:9, 245:13 251:24, 252:10 272:17, 278:1 processed 117:4 117:7, 118:1 209:11 processes 19:10 49:18, 95:14 112:13, 130:11 147:3, 233:3 233:5, 233:10 processing 12:16, 103:15 110:15, 116:23 117:4, 117:8 126:5 processors 17:6 103:6 produce 81:12 101:21, 124:9 125:25, 168:25 169:11, 190:8 206:18	produced 93:21 95:19, 95:19 95:21, 117:6 124:7, 124:10 125:2, 125:6 125:11, 125:14 125:24, 126:2 126:9, 126:21 127:8, 128:22 129:9, 168:15 168:22, 170:2 producer 55:12 producers 17:5 55:2, 101:19 101:25, 124:11 125:4, 142:6 produces 169:12 producing 17:17 42:13, 42:16 65:17, 126:2 138:2, 170:6 295:2 product 116:20 116:20, 119:4 205:6, 208:4 221:22, 221:22 production 12:23, 16:4 16:9, 16:11 20:4, 42:14 51:15, 65:19 67:14, 79:19 80:7, 80:10 80:15, 81:19 82:22, 82:25 90:8, 95:11 103:19, 110:12 125:19, 125:22 125:24, 126:13 126:20, 141:18 143:18, 169:2 207:23, 275:25 275:25, 276:3 292:20, 303:6 303:10, 309:15 production-b... 95:13 productive 55:1 55:7, 133:4 133:5 products 48:4 143:18, 143:19 170:2, 170:6 170:7, 170:8 209:25 professional 120:13, 128:19 153:9, 167:17 176:13, 230:13 240:24, 322:22 professionals
---	--	--	---	--

233:18 Professor 39:9 39:13, 71:10 71:25, 171:3 180:18, 180:19 184:20, 190:18 190:19, 212:20 212:21, 236:3 236:5, 255:18 255:19, 278:22 278:24, 315:3 proffer 165:24 proficiency 70:13 profiles 125:21 303:7, 308:14 profit 154:6 292:7, 294:18 program 7:20 17:7, 46:4 57:23, 67:22 94:18, 103:11 104:6, 125:8 129:2, 179:3 216:22, 234:8 247:25, 249:20 249:24, 258:19 259:2, 259:12 259:14, 259:19 260:4, 313:17 313:18, 313:24 317:17, 318:11 321:11, 321:25 programs 7:21 103:5, 122:17 122:18, 267:3 312:11 progress 187:14 252:13 progressively 252:6 prohibitive 85:25, 86:14 project 4:2 11:25, 29:19 54:22, 69:21 70:5, 70:16 70:24, 71:3 71:10, 71:12 71:14, 83:4 118:22, 143:21 projections 11:17, 75:9 216:24, 280:13 projects 144:3 144:11, 167:15 240:20, 294:14 prolongs 252:7 promised 55:16 89:9, 234:15 promote 145:1	249:20 promulgate 63:16, 246:2 299:11, 312:12 promulgated 275:12, 280:15 299:1 promulgates 250:2 promulgating 62:13, 245:10 245:25, 300:10 300:22 pronounce 152:15 pronouncing 135:9 proper 38:24 39:1, 238:8 properly 36:4 151:8 properties 144:13, 144:13 145:5 proponent 131:13 proponents 291:22 proposal 34:25 44:11, 55:22 56:10, 56:24 57:6, 57:8 57:15, 57:25 58:6, 58:8 58:13, 59:8 59:16, 59:21 59:21, 60:7 62:3, 62:17 64:21, 65:22 66:5, 66:14 66:17, 67:6 67:7, 67:19 68:9, 68:12 68:23, 69:6 69:9, 81:16 81:23, 81:25 83:2, 90:1 90:12, 94:14 95:19, 96:1 98:14, 108:11 121:25, 130:3 257:24, 259:24 286:20, 317:5 proposals 54:23 55:4, 55:5 55:9, 55:10 55:14, 55:17 60:10, 68:8 72:14, 74:4 76:7, 81:11 82:10, 82:14	89:6, 90:20 94:11, 127:14 propose 41:10 51:21, 55:18 62:8, 93:5 111:2, 165:15 233:5, 249:2 257:25, 263:4 304:6, 329:2 proposed 1:4 13:2, 15:16 18:24, 20:5 20:10, 20:13 38:4, 41:12 44:12, 46:17 47:13, 48:19 49:25, 51:9 52:8, 52:22 54:23, 55:14 55:24, 61:24 64:11, 64:19 64:20, 66:4 66:15, 66:16 68:2, 71:20 72:3, 73:23 74:2, 75:14 77:24, 80:3 80:5, 80:19 80:22, 81:3 86:6, 94:16 95:2, 102:18 105:21, 107:20 108:6, 108:9 108:14, 110:2 110:25, 111:18 112:14, 115:17 119:24, 120:11 121:15, 121:17 122:2, 122:4 122:8, 122:13 123:21, 126:18 127:1, 127:10 127:16, 127:21 150:2, 151:1 151:13, 200:16 201:10, 202:24 210:17, 211:14 231:1, 234:19 235:1, 235:12 246:11, 250:23 252:18, 252:23 259:23, 285:20 298:3, 298:5 299:17, 303:2 304:8, 307:24 308:3, 310:19 312:2, 332:3 proposes 59:11 64:14, 86:3 105:24, 197:7 197:11	proposing 46:7 46:14, 61:24 106:16, 106:16 119:16, 250:9 259:15 PROs 15:3 protect 54:7 56:25, 60:23 63:4, 64:11 66:24, 71:2 74:10, 75:15 78:19, 98:15 104:16, 150:4 151:19, 201:18 201:21, 244:19 271:21, 272:1 protected 150:8 150:14, 154:15 protecting 73:24, 74:19 153:11 protection 42:1 144:6, 198:20 244:20, 284:21 protections 70:10, 75:3 protective 287:14 protocol 11:4 132:2 protocols 287:8 prove 106:3 provide 23:6 23:8, 33:12 34:2, 41:22 44:9, 45:14 48:8, 51:3 57:14, 66:3 67:18, 68:1 70:9, 73:4 73:8, 76:14 78:7, 78:11 85:15, 88:19 107:20, 110:3 112:3, 112:23 113:16, 121:20 196:19, 204:9 232:15, 248:20 251:5, 285:17 286:9, 287:12 299:15, 299:21 301:4, 305:7 307:22, 310:7 310:9, 315:24 316:3, 322:7 provided 41:13 45:20, 50:10 52:4, 85:4 108:17, 110:10 157:15, 167:23 176:23, 186:17	230:19, 233:18 233:22, 241:5 254:16, 273:11 299:6, 319:13 providers 294:19 provides 51:25 56:14, 106:23 115:23, 305:12 providing 74:5 74:7, 110:8 114:19, 199:4 311:22 proving 317:19 provision 106:20, 248:18 256:24, 299:2 299:11, 317:14 provisions 43:23, 48:20 48:24, 49:6 51:2, 62:24 71:21, 89:25 91:14, 94:5 102:13, 102:25 105:16, 106:25 256:14 proximity 42:15 55:21, 56:10 56:18, 56:24 57:6, 64:20 66:5, 66:13 66:17, 67:6 67:19, 71:23 305:18, 308:24 prudence 111:14 prudent 40:4 40:8 public 8:16 10:1, 10:22 15:15, 22:16 23:9, 23:10 23:13, 23:15 23:20, 23:22 23:24, 24:1 25:6, 26:22 27:6, 27:18 45:4, 48:7 52:15, 53:3 54:7, 56:11 56:15, 60:16 60:23, 61:23 64:21, 70:9 73:24, 74:5 74:19, 75:16 76:14, 79:10 79:24, 131:18 131:21, 132:14 132:16, 133:2 133:7, 133:8 133:11, 133:12
--	---	--	---	--

133:15, 133:24 134:12, 135:13 135:15, 137:4 137:6, 139:9 139:21, 139:23 143:11, 143:13 145:8, 145:15 145:16, 145:25 146:10, 146:12 146:15, 149:20 149:22, 152:5 152:23, 152:25 154:21, 154:22 155:4, 179:7 179:24, 231:11 232:13, 232:15 232:18, 232:20 234:3, 234:6 234:10, 234:12 234:16, 234:20 234:21, 234:23 242:11, 244:5 244:5, 244:20 276:7, 282:13 282:18, 282:19 283:1, 283:2 283:14, 283:17 284:17, 284:18 287:3, 287:12 287:14, 288:1 288:3, 288:5 288:6, 288:9 288:19, 291:6 291:7, 291:12 293:13, 293:14 295:11, 306:25 310:8, 328:14 330:25, 332:8 Publication 13:15, 17:3 published 187:15, 266:23 Pueblo 81:9 pueblos 233:13 pull 92:5 pulled 274:21 330:14 pump 291:16 Purdue 167:20 purpose 41:21 42:5, 47:11 125:16, 177:21 177:21, 271:25 299:20, 299:23 312:1, 319:7 purposes 36:1 232:6, 304:16 306:22, 329:14 pursuant 65:4 132:22, 179:17 320:1	pursue 111:4 put 23:19 25:12, 27:3 41:24, 54:10 54:22, 55:14 59:8, 62:1 88:17, 97:18 97:23, 133:9 133:15, 154:1 154:4, 158:25 158:25, 161:17 203:9, 226:16 239:9, 283:21 287:3, 296:25 314:19, 326:7 328:21, 330:10 putative 213:17 puts 155:13 putting 53:6 61:2, 130:22 226:10 puzzle 89:3 Q QA 188:20 189:8, 189:19 190:1, 195:23 qualification 34:4 qualifications 167:17, 176:13 230:13, 240:24 qualified 34:6 quality 4:12 11:7, 11:24 11:25, 12:23 12:23, 13:13 15:16, 17:9 17:15, 18:15 18:17, 41:13 41:21, 42:14 42:23, 43:6 43:16, 43:17 44:4, 44:23 46:3, 47:3 47:5, 47:14 49:7, 53:1 59:24, 64:6 64:11, 71:1 73:2, 75:3 75:9, 75:18 77:15, 77:20 102:15, 103:11 104:9, 104:19 104:22, 105:7 105:14, 105:17 109:5, 111:1 111:10, 116:1 117:2, 120:19 128:24, 130:7	144:7, 167:3 167:12, 176:1 176:7, 176:10 176:18, 176:22 177:14, 177:16 177:18, 177:20 177:22, 179:7 179:8, 180:8 186:1, 186:7 186:10, 186:12 186:15, 187:11 187:16, 188:16 189:3, 189:10 189:16, 198:21 200:19, 201:16 201:20, 210:15 210:24, 211:2 219:15, 221:4 221:8, 221:10 229:22, 230:1 230:16, 232:3 240:8, 240:16 240:19, 240:20 240:20, 240:22 241:2, 242:9 243:20, 245:4 245:14, 245:17 246:20, 246:25 247:11, 248:3 248:6, 248:8 248:11, 248:23 249:17, 250:3 250:8, 250:21 251:19, 263:14 266:21, 267:3 271:21, 280:24 282:9, 292:17 294:11, 298:25 299:6, 300:9 300:19, 300:21 300:25, 304:10 304:15, 304:17 304:18, 304:19 304:25, 305:1 305:3, 305:7 305:10, 305:13 305:15, 305:17 305:19, 305:20 305:24, 306:13 307:18, 308:7 308:20, 311:14 311:19, 312:4 320:5, 321:1 321:3, 321:7 322:18, 322:22 323:2, 325:10 325:14, 325:15 325:18, 325:18 327:1, 327:1 327:7, 327:8 327:10	quality-related 230:7, 247:13 quandary 141:1 quantify 298:16 quantity 59:24 quarter 153:19 238:7 quarterly 56:3 188:25, 190:3 193:18, 224:10 224:18, 224:21 quarters 224:22 question 9:18 39:22, 50:25 100:18, 133:8 145:22, 156:24 170:17, 170:19 173:5, 181:11 182:17, 183:2 191:9, 192:14 192:19, 193:3 195:13, 197:4 205:19, 214:20 215:6, 218:13 223:8, 224:6 224:7, 224:9 226:21, 226:25 237:13, 237:17 238:3, 257:18 258:9, 261:7 263:9, 263:10 279:25, 280:4 281:10, 282:25 283:12, 287:23 289:6, 289:15 289:16, 289:20 294:4, 294:17 296:11, 305:1 308:9, 316:5 322:3, 324:15 325:7, 326:4 329:10, 330:4 questioning 132:21, 132:23 190:14, 192:20 235:20, 262:5 326:19 questions 28:12 87:20, 130:15 133:7, 133:10 133:14, 156:12 156:18, 158:10 170:11, 170:15 170:16, 170:25 171:4, 171:6 171:9, 171:11 171:14, 171:17 171:20, 171:24 172:3, 172:9 172:19, 172:20 172:22, 173:2	173:18, 173:19 173:22, 173:23 173:25, 180:11 180:14, 180:19 180:23, 181:1 181:8, 181:25 182:3, 182:6 182:9, 182:12 182:21, 182:23 183:24, 184:8 184:11, 190:12 190:15, 190:19 190:23, 190:25 191:3, 191:6 191:21, 191:24 191:25, 192:2 192:4, 192:7 192:10, 193:13 194:25, 195:8 195:11, 197:2 197:16, 197:17 212:10, 212:17 212:21, 212:25 213:4, 213:8 217:8, 217:12 217:18, 217:19 217:22, 217:25 218:2, 218:4 218:7, 218:9 218:17, 218:19 219:18, 219:20 219:25, 220:3 222:19, 222:25 223:4, 224:2 226:14, 227:9 229:18, 235:18 235:21, 236:1 236:5, 236:8 236:10, 236:13 236:16, 236:19 236:22, 236:25 237:2, 237:4 237:6, 237:9 237:12, 237:19 237:23, 238:1 238:15, 238:17 238:22, 253:7 255:11, 255:13 255:19, 255:24 255:24, 256:2 256:4, 256:7 256:10, 260:18 260:21, 260:23 260:25, 261:2 261:9, 261:11 261:15, 261:18 261:20, 262:2 262:8, 263:6 267:11, 270:11 278:7, 278:11 278:20, 278:24
--	--	--	---	--

279:5, 279:8 279:10, 279:12 279:14, 279:16 279:18, 279:21 279:23, 280:5 280:10, 280:11 281:15, 281:17 281:20, 281:22 282:1, 288:23 289:3, 289:7 289:8, 297:13 314:16, 314:17 314:21, 315:1 315:5, 315:11 315:14, 315:17 316:7, 316:9 316:10, 316:12 316:14, 323:7 323:9, 323:24 324:2, 324:5 324:7, 324:9 324:13, 324:19 324:21, 324:25 325:2, 326:16 326:22, 327:18 327:22, 329:10 quick 135:17 174:11, 200:16 325:7, 326:4 quickly 92:4 174:18, 210:11 quiet 242:2 242:20 quite 22:3 66:12, 92:17 157:4, 169:8 227:24, 268:4 quotes 248:14	262:6, 265:24 281:24, 284:10 290:20, 293:6 326:20 raised 102:4 297:18 raises 205:19 Ralph 18:12 18:14, 19:14 43:13, 88:3 250:20 Ramboll 43:14 47:19, 48:5 48:13, 170:3 170:5, 250:14 272:25, 276:5 302:24 rancher 57:10 range 87:17 195:18 Ranger 305:21 323:17 rapidly 96:24 98:8 Raso 8:22, 11:2 11:3, 43:3 45:15, 158:17 166:4, 166:5 166:5, 166:6 166:7, 166:8 166:12, 166:14 166:14, 166:18 166:18, 166:19 166:21, 166:25 167:2, 168:11 168:11, 169:23 170:10, 170:19 172:17, 173:5 173:9, 173:16 174:2, 174:3 262:11 rate 200:14 215:17, 215:23 252:14, 276:3 292:10, 292:12 ratio 208:23 208:24, 209:1 209:7, 209:19 209:22 ratios 210:2 ravished 150:21 raw 116:20 Raynaud 282:22 291:1 re-add 228:14 re-evaluate 244:25 re-perform 196:1 reach 23:3 50:5, 134:10	134:19, 152:6 155:3, 182:16 182:17, 192:15 210:4, 237:14 251:9, 261:8 279:25, 282:20 284:7, 287:20 287:20, 324:15 reached 57:19 83:9, 96:22 102:14, 197:20 214:11 reaches 99:18 145:20, 212:3 reaching 83:11 111:8, 224:5 262:4, 295:13 308:25 react 80:11 reactants 209:18 reacted 207:12 reacting 210:4 reaction 106:5 202:2, 208:4 210:5, 215:17 215:23 reactions 168:16, 169:9 169:13, 169:16 169:20, 169:21 204:5, 207:15 208:6, 209:12 210:1 reactivities 204:6 reactivity 213:21, 215:9 215:15 reacts 207:9 207:25, 208:2 read 40:4 97:19, 135:17 282:19, 291:21 300:17, 320:1 readily 181:22 reading 36:25 38:25, 47:1 184:19, 300:13 readings 301:14 reads 50:14 ready 41:3 84:10, 239:20 270:2, 297:12 real 60:15 60:17, 143:20 151:23, 273:5 289:6, 325:6 325:7 realistic 295:3 realistically	151:3 realize 150:22 283:11 realizing 154:3 really 38:3 86:22, 88:21 91:23, 106:6 106:7, 115:6 123:15, 127:17 128:10, 138:22 141:25, 143:15 146:16, 157:25 161:1, 163:22 164:17, 165:12 165:14, 174:11 174:14, 197:9 209:17, 211:16 217:5, 221:21 226:13, 271:19 272:6, 272:22 273:8, 274:11 274:22, 275:4 275:5, 275:9 276:7, 276:8 276:24, 282:8 288:3, 325:8 327:15 reason 35:19 37:11, 50:4 65:6, 117:19 130:13, 150:10 154:13, 174:1 184:14, 209:4 238:19, 263:15 275:23, 318:8 327:20, 327:24 reasonable 52:23, 68:12 89:10, 108:13 109:4, 111:20 112:25, 119:20 121:1, 121:11 122:15, 122:21 252:12, 294:21 reasonableness 69:2, 120:11 120:17 reasonably 102:22, 314:10 318:15, 320:24 reasoned 112:24 reasons 36:5 91:4, 94:24 225:22, 286:3 299:3 rebuttal 18:21 18:22, 18:22 18:24, 19:1 19:2, 19:3 19:5, 19:6 19:8, 19:9	19:11, 19:12 19:14, 19:14 19:15, 19:17 19:18, 19:18 19:20, 19:21 19:22, 19:22 19:23, 19:24 19:24, 20:1 20:2, 20:3 20:6, 20:6 20:18, 22:16 33:1, 33:2 37:5, 37:16 55:2, 55:6 72:1, 131:9 131:12, 156:2 156:3, 158:24 159:14, 159:17 161:9, 161:22 162:4, 162:8 162:11, 162:21 162:22, 163:10 164:9, 164:11 174:22, 185:4 199:3, 201:12 227:20, 241:13 241:13, 241:23 254:16, 263:24 264:12, 267:6 268:13, 268:14 269:14, 269:20 270:1, 270:4 270:5, 270:9 270:12, 270:24 288:18, 289:1 297:19, 297:22 297:22, 297:23 297:24, 298:22 309:24, 311:8 311:11, 311:23 313:25 rebutting 277:21 recalibrated 196:4 recall 327:24 recalling 28:14 receive 125:24 126:3, 126:3 193:15, 194:2 194:2 received 22:17 23:22, 164:12 212:8, 234:4 234:23, 234:25 235:15, 269:11 270:21 receiving 127:7 129:4, 253:2 Recess 84:8 131:24, 228:2
R				
R-A-S-O 166:8 R-E-Y-N-A-U-D 291:1 R307-504 16:18 racial 147:24 RAD 204:17 Radiation 12:7 14:14, 17:12 Radiation's 13:23 radicals 215:18 raise 37:17 86:4, 128:8 129:5, 135:1 139:10, 146:3 149:10, 152:11 166:10, 175:9 185:14, 198:6 215:2, 229:6 239:16, 243:6				

283:15 Reciprocating 13:14, 14:18 14:21, 15:2 reclassifica... 252:7 reclassified 252:4 recognize 61:25 121:10 recognized 90:12, 298:12 303:5, 305:25 recognizes 111:13 Recognizing 303:19 recommend 36:11 36:13, 36:15 292:14 recommendation 35:5 recommendations 17:15, 147:25 149:2, 216:17 recommending 35:17, 300:10 300:22, 318:25 319:3 recompletion 58:3 recompletions 62:21, 69:8 reconcile 320:17 Reconstruction 12:10, 12:14 reconvene 131:23 record 23:1 24:18, 24:23 25:1, 35:8 35:10, 35:22 36:14, 36:17 36:23, 37:23 37:25, 38:24 39:1, 40:20 101:15, 115:7 164:14, 166:20 226:12, 253:18 268:22, 296:25 311:6, 330:10 recorded 27:5 76:2, 188:10 recording 24:24 189:12, 189:18 recordkeeping 49:20, 233:6 Recover 17:2 Recovery 15:4 17:5	recreate 221:9 recurring 65:16 recycle 124:14 recycled 124:11 124:22, 124:24 125:3, 125:6 125:14, 125:16 126:10 recycling 95:21 95:25, 124:7 124:19, 125:1 126:1, 127:2 red 148:18 148:19 redesign 118:23 redesignate 26:20, 246:24 247:11 redesignated 252:2 redesignating 247:3 redesignation 247:9 redevelopment 57:16, 294:14 redirect 9:18 9:21, 197:21 262:6, 262:8 262:9, 263:6 281:25, 282:1 326:20, 326:22 326:23 redline 13:2 18:24, 38:4 38:4, 45:12 254:25, 255:6 redlines 36:1 reduce 17:11 44:24, 54:4 54:5, 59:5 62:9, 63:12 63:17, 63:18 63:20, 64:10 65:22, 67:23 68:3, 68:18 78:2, 82:17 82:23, 85:17 86:8, 88:12 90:11, 94:2 106:8, 124:18 169:22, 169:25 201:11, 201:14 211:15, 211:16 217:2, 232:10 232:10, 249:21 272:4, 285:10 286:2, 286:10 286:17, 287:6 313:3 reduced 57:15	57:20, 57:23 57:25, 66:16 82:12, 121:4 121:8 reducing 15:4 17:13, 45:1 53:2, 63:12 95:25, 127:11 232:6, 272:5 285:22, 286:13 reduction 15:19 56:4, 56:6 80:14, 88:7 106:10, 120:21 122:20, 252:22 281:2, 281:6 284:24, 285:3 285:18, 285:24 286:7 reductions 14:8 14:9, 14:11 14:12, 15:11 16:6, 16:17 16:20, 17:18 18:4, 19:11 19:16, 43:24 44:19, 47:24 49:10, 49:12 50:1, 52:10 56:1, 56:7 63:3, 63:20 66:14, 66:23 85:12, 88:10 93:7, 106:9 106:14, 107:7 107:8, 121:18 210:17, 231:24 247:24, 253:1 258:24, 259:1 259:3, 259:7 272:16, 273:10 275:11, 281:4 285:21, 285:23 286:24 refer 37:3 38:22, 53:25 114:13, 312:20 reference 13:4 15:7, 166:17 317:5 referenced 219:12 references 274:1 referencing 225:18 referred 30:15 35:19, 37:19 84:19, 109:23 116:6, 117:3 312:9	referring 22:3 29:8, 114:10 155:8, 168:18 224:12, 277:16 refers 325:15 refineries 103:7 reflect 96:13 146:23 reflected 100:23, 235:2 refused 51:24 57:22 Reg 17:21 17:24, 18:6 Reg.7 12:22 regard 221:3 309:25 regarded 95:23 regarding 20:10 45:2, 45:24 48:16, 50:13 51:4, 67:5 73:22, 75:8 110:24, 119:23 120:13, 156:6 159:13, 177:13 218:21, 267:3 273:11, 301:14 301:17, 306:4 306:5 regardless 89:1 91:3, 145:15 region 4:12 15:10, 151:10 169:19, 211:17 223:22, 245:17 245:19, 301:6 305:2, 305:7 305:10, 305:13 305:20, 308:21 321:1, 321:3 327:1, 327:3 327:7, 327:8 327:10 regional 18:15 47:20, 48:6 121:6, 167:15 187:17, 206:17 240:19, 259:1 259:5, 259:7 259:12, 259:23 260:4, 303:11 regions 47:5 47:6, 47:15 205:1, 304:11 304:15, 304:17 304:19, 304:20 304:25, 305:3 305:24, 321:7 register 145:14	registering 46:24, 249:8 registration 25:21 regulate 41:10 42:9, 91:3 103:4, 103:19 105:25, 106:23 147:3, 257:13 257:17, 258:4 260:3, 299:24 302:7, 317:22 318:6, 318:11 319:10 regulated 52:14 77:11, 103:10 104:8, 118:16 120:21, 234:16 288:16, 299:5 regulating 46:22, 257:23 258:8 regulation 1:4 12:20, 52:13 72:9, 87:21 99:5, 106:20 120:20, 121:1 122:22, 136:8 144:25, 285:7 294:11, 294:12 294:12, 317:16 317:17, 322:13 regulations 15:16, 41:17 44:8, 44:24 46:10, 46:14 46:17, 48:14 70:9, 71:20 72:5, 79:22 80:5, 80:14 86:4, 102:16 102:17, 103:6 103:9, 113:1 119:20, 169:22 169:25, 178:7 178:10, 178:12 179:17, 188:3 201:20, 232:3 232:4, 232:5 240:16, 249:2 250:22, 250:25 251:3, 262:16 286:1, 286:17 295:4, 299:1 299:10, 299:20 300:2, 306:15 306:24, 320:7 regulators 112:23 regulatory 14:2 15:16, 15:18
---	---	--	---	---

43:18, 44:4 44:7, 44:19 49:2, 49:6 49:24, 51:3 52:24, 103:5 111:14, 150:4 176:11, 201:21 211:1, 219:7 219:9, 231:23 233:11, 235:3 242:7, 250:16 251:8, 251:16 251:21, 259:14 271:25, 272:5 272:15, 285:16 322:22 reins 306:11 reiterate 72:10 reject 50:6 65:21 rejected 51:13 127:15 rejoin 289:17 relate 40:5 72:6, 103:24 121:25, 256:14 269:14 related 10:11 21:5, 39:25 79:17, 110:8 111:1, 163:16 189:22, 205:4 234:6, 234:11 276:3, 277:10 330:4, 330:8 332:15 relates 72:7 146:24, 274:25 277:8 Relating 166:22 229:13, 239:22 266:9 relative 276:24 307:9 relatively 83:20 release 48:18 153:21, 214:16 266:22 released 60:4 286:20 releases 82:9 relevant 71:16 303:22 reliability 50:25 relied 75:3 relief 51:3 51:25 relies 201:19 religious 148:8	relocate 90:8 113:25 rely 50:24 125:4, 140:24 316:23 relying 56:1 316:21, 316:22 322:12 remain 86:19 93:14, 111:16 128:16 remainder 204:11 remained 111:19 remaining 26:21 108:5, 126:7 127:19, 129:13 remains 24:11 remarks 109:8 278:4, 328:6 remember 132:17 199:11, 226:24 267:16, 270:19 274:4, 327:12 REMEMBERED 1:9 remembering 225:10 remind 39:3 120:8, 132:1 reminder 40:11 remote 12:19 110:16, 222:2 222:4, 222:8 222:9 removal 67:9 215:18 remove 25:20 35:18, 36:19 38:14, 66:21 124:17 removed 118:10 126:17 removing 13:7 15:21, 38:23 renew 311:5 repackaged 32:24, 32:25 repair 55:19 62:23, 66:7 71:22, 72:4 82:19, 82:22 98:12 repeat 24:21 257:18 repeatedly 51:18, 153:25 repercussions 147:20 repetition 263:11 replace 68:20	replaced 25:14 81:20 replacement 81:23 replacements 82:2 reply 128:11 report 10:21 14:17, 15:21 15:23, 17:10 17:11, 17:15 17:16, 35:2 63:24, 64:4 76:10, 76:24 77:5, 125:13 224:21, 233:22 234:2, 234:4 332:10 reported 1:20 15:3, 179:22 180:6, 188:1 224:17 reporter 24:16 27:13, 27:16 69:24, 97:14 97:20, 97:22 243:2, 243:16 265:14, 300:12 300:16, 300:19 REPORTER'S 332:6 reporting 1:20 17:22, 17:24 65:5, 76:12 233:7 reports 65:4 76:14, 125:10 186:14, 189:22 represent 29:7 53:20, 73:21 84:17, 84:25 90:21, 96:11 96:12, 123:7 130:17, 286:25 295:23, 328:7 representation 70:19 representations 51:1, 288:15 representative 70:22 representatives 24:3, 26:7 26:15, 27:8 28:5, 100:4 108:16, 131:6 132:10, 132:12 132:25, 233:16 represented 70:22, 79:20 260:14	representing 22:10, 30:19 31:10, 31:21 32:3, 32:9 70:4, 71:8 71:10, 79:6 101:17, 109:23 114:6, 129:23 233:12 represents 74:13, 79:11 101:25, 156:15 179:8 request 32:25 45:7, 48:8 76:19, 76:23 133:19, 194:15 224:5, 235:14 247:9, 328:3 requested 142:21 requests 282:18 require 57:15 58:1, 59:21 62:3, 68:23 69:6, 71:21 81:23, 82:2 82:10, 82:14 83:4, 92:19 95:22, 96:16 103:24, 118:12 151:1, 287:9 298:15, 307:15 307:21 required 41:16 52:9, 104:2 104:12, 104:14 117:21, 131:9 178:14, 178:15 189:6, 193:24 245:24, 248:19 249:2, 249:10 254:24, 256:23 257:2, 259:6 260:9, 285:21 301:8, 306:6 306:15, 307:17 311:14, 312:17 312:23, 314:5 326:11 requirement 25:20, 46:8 62:19, 85:23 85:25, 102:22 193:24, 256:25 257:10, 306:24 314:8 requirements 33:20, 42:5 44:22, 45:15 49:3, 49:20	49:22, 50:2 51:7, 51:12 52:3, 62:14 62:25, 64:16 66:4, 66:7 68:2, 69:4 72:8, 76:12 82:22, 83:1 85:20, 98:13 103:16, 103:24 104:15, 105:15 105:22, 108:9 108:14, 122:17 135:19, 136:5 136:8, 165:15 176:11, 178:11 180:1, 188:17 188:21, 190:2 211:2, 232:9 249:17, 250:8 252:6, 252:11 253:3, 257:7 257:25, 258:18 272:21, 287:6 287:7, 312:3 313:8, 313:15 326:9 requires 64:21 76:9, 94:20 103:11, 120:9 242:8, 244:25 245:13, 250:21 302:6, 312:7 314:1 requiring 94:5 103:21 rescue 164:3 research 43:22 49:1, 66:2 145:3, 167:20 198:25, 206:11 267:3 researched 120:24 resend 157:22 158:2 reserve 69:17 316:12 reserved 124:2 reserves 131:12 resident 143:14 291:15 residents 63:4 292:15 residing 61:16 61:17 resolution 206:12, 223:14 223:14 resolve 278:2 resolved 107:24
--	--	--	---	---

276:6 resource 108:3 122:19, 148:2 198:22, 230:17 resources 3:12 4:6, 4:17 14:18, 16:22 43:9, 44:17 53:19, 53:23 62:1, 70:3 72:23, 96:1 125:5, 198:23 199:1, 201:18 201:21, 231:22 250:14, 262:15 respect 68:6 103:7, 104:5 129:25, 176:10 187:11, 247:4 248:9, 267:8 287:23, 319:24 respectfully 120:8 respective 71:15, 298:12 303:8, 308:21 309:16 respectively 303:6 respects 148:25 271:21 respiratory 56:23, 153:21 respond 39:12 45:10, 289:2 301:13 responded 192:20, 309:22 322:3 responding 75:1 226:13, 316:2 responds 44:22 response 62:5 72:2, 165:17 188:23, 235:12 254:15, 256:22 310:1, 315:20 322:12 responses 32:22 responsibility 153:17, 293:22 responsible 115:12, 177:15 240:15, 247:2 responsibly 125:7 responsive 111:20, 112:2 226:16 rest 41:4, 84:7 210:19, 296:12	restate 277:22 322:10 restore 74:10 restrict 136:2 restricted 135:20, 300:6 restricting 216:19 restrictions 292:16 restrictive 47:1 restricts 299:1 result 44:12 67:9, 82:4 94:19, 106:18 245:1, 285:22 287:4 resulted 48:18 resulting 92:18 results 18:11 47:23, 48:3 56:19, 64:16 65:14, 67:12 68:15, 82:8 93:9, 167:14 180:5, 180:6 200:16, 208:10 211:8, 245:9 250:19, 299:16 302:23, 307:16 307:22, 310:18 resume 10:9 10:15, 11:3 11:23, 12:3 12:6, 18:8 18:14, 19:20 19:21, 19:23 20:9, 167:22 176:23, 186:16 230:19, 241:5 retain 251:13 retired 139:24 139:25, 275:13 275:14, 291:18 retrieving 298:16 retrofit 59:7 59:9, 94:21 retrofitted 62:18 retrofitting 58:8 return 51:9 84:5, 155:5 172:8, 228:1 295:16, 295:16 returned 124:11 reuse 124:12 144:14 revenue 140:11 revenues 51:17	140:10, 140:11 292:2 reverse 131:11 review 17:10 34:23, 48:6 48:10, 98:6 118:22, 167:11 167:14, 170:2 179:24, 190:1 245:7, 253:22 256:17, 276:7 277:23, 282:5 306:17, 306:21 309:21, 311:7 315:24, 316:11 reviewed 62:17 170:7, 170:8 187:16, 188:20 280:20, 308:1 309:24 reviewing 251:12, 272:23 306:12 revised 11:15 11:19, 12:24 16:8, 39:2 119:9, 119:9 243:23, 245:1 245:5, 246:1 247:8, 310:1 312:8 revision 38:9 38:19, 118:23 245:6 revisions 15:16 17:22, 17:24 18:5, 45:11 62:5, 62:23 86:15, 90:17 128:1, 235:1 235:11, 315:19 315:25 revoked 312:12 reworking 82:15 Reynaud 10:2 284:4, 290:12 290:13, 290:14 290:15, 290:19 290:23, 291:4 291:7, 291:8 291:13, 291:15 293:1 rgonzales@mo... 5:21 RICARDO 5:17 RICE 14:23 Richard 10:2 282:22, 284:4 290:12, 290:13 291:4, 291:7 291:15	Ridge 5:4 right 22:8 30:2, 31:2 32:18, 33:7 34:2, 34:11 34:15, 34:21 45:6, 84:9 95:8, 100:17 115:10, 131:3 131:19, 133:1 134:16, 135:2 136:13, 139:4 139:10, 140:22 141:1, 146:3 147:15, 149:5 149:10, 151:21 152:11, 153:16 154:6, 155:2 159:7, 159:10 159:16, 159:19 160:2, 160:4 161:7, 161:10 161:14, 161:15 162:15, 162:20 162:21, 162:22 163:11, 164:2 165:8, 166:2 166:10, 168:11 171:7, 172:8 172:12, 172:16 172:21, 172:24 173:24, 174:2 174:15, 174:25 175:9, 180:24 182:4, 182:15 184:2, 184:13 184:24, 185:1 185:14, 188:12 190:24, 191:1 192:1, 192:11 193:9, 195:10 196:10, 196:12 196:25, 197:15 197:19, 197:24 198:3, 198:6 199:15, 200:7 206:25, 211:25 212:3, 213:2 213:9, 214:5 214:18, 215:2 217:10, 217:23 218:5, 222:10 222:18, 222:23 223:2, 223:17 223:24, 224:24 226:7, 227:16 229:5, 229:6 229:19, 235:19 236:3, 236:7 236:23, 237:7 237:10, 238:2	238:12, 238:15 238:18, 239:12 239:16, 241:25 242:6, 246:10 254:9, 256:1 256:8, 261:1 261:3, 261:16 262:3, 262:23 262:24, 263:8 263:19, 264:3 264:7, 264:14 265:12, 265:18 265:24, 266:6 268:14, 268:21 269:7, 269:10 270:18, 270:20 274:14, 274:15 277:18, 278:9 278:24, 279:6 281:13, 281:16 282:3, 282:13 283:13, 283:16 284:10, 288:7 289:23, 290:21 291:2, 291:14 292:13, 293:2 293:6, 295:10 296:8, 296:10 296:25, 297:16 304:14, 305:16 309:6, 314:18 315:2, 315:6 315:9, 316:1 316:4, 316:16 317:20, 317:22 321:4, 321:6 321:13, 323:4 324:12, 326:17 327:15, 327:19 328:15 right-hand 26:24 rigorous 253:3 Rio 57:10 89:14, 89:16 89:18, 298:1 299:12, 301:14 301:18, 301:22 303:3, 303:9 305:2, 305:4 305:14, 305:20 307:4, 309:8 323:13, 323:17 323:20, 327:5 327:6, 327:11 327:12 ripple 151:22 rise 42:14 142:19, 286:15 302:12 rises 141:12
---	---	--	--	--

Volume 1
9/20/2021

EIB Ozone Hearing

rising 41:14 42:17, 46:1 140:14, 250:22 302:12, 302:16 313:21 risk 56:22 56:23, 67:15 154:1, 244:5 244:9, 287:3 risks 56:19 56:21, 153:22 risky 76:23 rivers 74:11 road 163:25 Roadmap 19:8 roads 222:12 Rob 282:21 284:3, 290:3 Robertson 65:2 robust 59:6 115:7 Rocky 205:13 Rodriguez 282:21, 284:3 290:3, 290:4 ROEHL 6:14 role 26:12 26:13, 83:20 112:6, 115:24 199:15 roles 198:24 ROMO 205:12 rooted 68:15 Rose 5:16, 8:10 9:3, 9:17 9:20, 9:24 30:23, 30:24 30:25, 39:17 39:18, 39:19 101:8, 101:10 101:13, 101:14 101:16, 107:13 160:9, 163:12 163:23, 163:24 165:17, 171:13 171:14, 181:10 181:11, 181:14 181:24, 191:24 191:25, 217:12 217:13, 217:16 217:19, 236:21 236:22, 254:1 254:10, 254:22 255:8, 255:9 256:8, 256:9 256:12, 260:17 260:19, 264:16 264:17, 265:14 265:16, 265:19 266:7, 266:13 267:15, 267:20	268:2, 268:11 268:14, 268:18 269:4, 269:13 269:18, 269:19 270:15, 270:23 271:7, 271:11 271:15, 273:20 273:21, 273:23 274:14, 274:18 277:7, 277:8 278:5, 278:7 278:10, 281:25 282:1, 282:4 287:22, 288:14 288:24, 289:18 289:20, 296:11 296:19, 296:20 323:7, 323:8 323:11, 323:23 323:25, 330:5 Rose's 164:6 262:5 Roswell 291:16 292:19 roughly 28:19 28:19, 101:1 round 215:14 rounds 60:10 routinely 154:1 154:15 row 157:7 rows 155:23 155:23 RPR 1:20, 332:7 332:21 rule 13:13 14:15, 16:18 17:22, 17:24 20:10, 43:24 44:12, 45:2 45:12, 45:15 47:12, 47:21 47:24, 48:22 48:25, 49:3 49:19, 50:4 50:5, 51:2 51:5, 51:10 51:12, 51:25 52:2, 52:4 52:13, 52:22 54:10, 54:12 54:23, 55:22 55:24, 57:5 59:5, 60:8 60:8, 60:20 61:25, 62:2 62:12, 62:25 65:5, 66:15 73:9, 74:2 76:9, 77:3 77:14, 77:23	80:4, 81:2 81:3, 83:22 83:25, 86:18 86:23, 86:24 87:6, 87:9 87:13, 87:18 87:24, 88:15 89:15, 90:6 93:16, 94:4 97:5, 98:5 98:18, 106:22 107:20, 107:25 108:6, 119:22 122:13, 123:14 123:17, 126:18 127:1, 127:10 127:16, 127:21 130:1, 130:3 130:12, 130:13 130:14, 130:22 131:13, 146:16 150:2, 155:15 155:18, 155:20 163:3, 163:5 170:4, 200:16 201:10, 202:24 210:21, 211:14 231:12, 234:15 234:19, 234:19 235:1, 235:12 235:15, 246:12 252:18, 252:23 259:9, 263:4 285:20, 291:21 291:22, 291:23 291:23, 291:24 292:15, 298:3 298:5, 299:17 303:2, 304:8 304:13, 308:3 309:9, 310:8 310:19, 316:20 316:25, 317:2 317:3, 332:3 ruled 164:24 rulemaking 21:4 21:8, 22:15 38:25, 42:7 43:13, 45:6 46:11, 46:13 46:20, 47:18 53:17, 60:13 60:18, 63:18 69:12, 70:23 73:7, 79:9 79:16, 79:17 83:24, 85:2 85:6, 86:11 102:18, 105:24 107:3, 107:18 110:2, 110:25	111:18, 112:1 112:14, 119:8 121:6, 130:11 132:22, 155:15 250:18, 258:16 258:17, 283:18 310:25 rulemakings 58:19, 111:4 rules 41:10 41:12, 48:19 49:10, 54:3 54:16, 54:18 54:19, 55:14 55:15, 60:22 61:1, 61:24 63:16, 64:10 73:23, 74:5 74:15, 75:6 75:14, 75:18 75:21, 75:24 76:1, 76:8 76:11, 76:13 76:17, 76:18 77:24, 78:3 78:4, 78:9 78:13, 79:23 80:1, 80:18 80:22, 81:1 85:10, 85:11 87:1, 87:2 92:1, 93:10 93:14, 93:15 96:14, 96:16 97:4, 102:5 115:17, 119:13 119:16, 119:17 120:11, 121:15 132:22, 147:25 149:1, 150:25 151:1, 151:3 151:4, 151:9 151:13, 151:16 153:6, 154:14 216:19, 217:2 248:19, 249:12 250:24, 262:22 280:15, 285:15 285:16, 285:24 286:3, 286:9 286:16, 286:21 286:25, 287:14 312:2, 320:1 320:20, 320:23 332:4, 332:16 ruling 40:21 253:19 run 95:16 329:25 running 125:2 231:16	runs 47:1 208:24 rush 196:13 S S-H-O-U-P 149:16 S-I-V-E 214:25 sacred 148:21 sacrifice 148:23 sacrificing 153:13, 154:11 safe 69:9 115:11, 141:19 safely 74:20 safety 78:18 86:2, 86:4 94:24, 272:2 Saillan 5:11 8:8, 30:9 30:10, 30:12 78:25, 79:1 79:2, 79:5 84:2, 171:10 171:11, 181:4 181:5, 191:2 191:3, 213:3 213:4, 236:15 236:16, 256:3 256:4, 279:7 279:8, 315:13 315:14 salute 99:22 sample 204:19 sampler 206:9 samples 60:2 117:16, 204:17 223:21 sampling 209:6 San 3:12, 7:23 53:24, 81:10 143:14, 233:17 303:5, 305:12 305:15, 308:15 313:20, 327:8 327:9, 327:15 327:16 Sandra 10:2 282:20, 284:3 284:9, 284:15 284:18, 284:20 Santa 2:13 2:19, 3:9 3:15, 5:8 5:13, 5:19 7:12, 31:10 53:25, 74:13 84:21, 101:17 109:19
--	---	--	---	---

satellite 203:18, 206:4	181:20, 197:10 259:21, 298:2	Secondly 105:5 seconds 97:9	26:5, 26:14 26:23, 32:5	329:4, 329:7 330:18, 330:24
satisfactory 98:14	299:10, 303:15 303:20, 304:7	secretary 54:10 267:2	32:18, 34:12 36:9, 38:14	seeing 92:15 105:3, 134:18
satisfy 250:7 257:7, 258:18 272:20	307:24, 309:9 316:25, 317:2 score 50:18	section 12:24 14:6, 21:8 34:20, 43:3 43:6, 43:7	54:17, 87:13 89:2, 90:1 92:7, 94:14 97:16, 99:10	150:20, 200:1 200:2, 200:7 204:22, 206:5 209:8, 223:24
saved 27:5 saw 147:17 153:15, 171:2 190:18, 225:20 225:23, 280:20 290:13	Scott 6:3, 31:4 scott.janoe@... 6:5 screaming 243:3 screen 21:15	48:16, 49:18 49:25, 52:2 55:23, 58:6 59:16, 60:7 64:15, 78:15 90:1, 90:3 91:17, 92:7	100:15, 100:15 101:5, 116:10 117:22, 121:3 124:25, 134:8 134:17, 136:14 138:24, 138:25 139:3, 139:6 139:7, 139:7	seek 234:15 seeks 51:8 seen 97:1, 97:1 100:7, 113:22 208:14, 225:5 294:25
Sayer 7:10 32:2 saying 138:5 256:2, 271:18 says 196:17 228:17, 317:18 320:1, 320:8 322:20	100:8, 101:5 113:16, 113:22 113:25, 132:3 132:3, 132:4 132:6, 132:8 132:12, 139:8 165:24, 175:8 185:14, 198:4 199:8, 199:21 200:10, 214:13 228:4, 228:9 239:13, 264:25 267:22, 271:6 297:14, 314:20 328:11, 329:7	105:13, 122:2 122:8, 122:8 123:22, 127:5 127:6, 127:7 127:8, 127:9 128:17, 128:18 128:21, 128:22 128:23, 129:2 129:4, 129:7 129:9, 129:9 129:25, 130:14 155:15, 155:19 155:19, 155:20 167:9, 176:22 189:2, 230:3 241:4, 244:24 248:5, 248:11 254:18, 257:1 307:14, 309:19 312:6, 312:14 312:17, 313:7 313:10, 313:15 317:4, 318:18	142:22, 142:22 142:23, 142:24 145:11, 145:12 146:8, 149:6 156:12, 159:1 159:11, 161:5 164:14, 172:6 172:6, 173:25 174:17, 175:8 185:13, 198:3 199:14, 200:5 200:9, 200:10 202:5, 202:6 203:19, 203:21 204:17, 205:1 206:3, 207:16 207:22, 209:1 210:21, 211:22 212:24, 213:24 214:9, 214:16 217:21, 219:6 219:7, 224:5 224:6, 226:20 228:15, 237:11 238:22, 242:22 253:16, 254:22 261:24, 262:4 271:3, 279:23 281:1, 286:22 287:18, 288:10 290:4, 290:9 290:10, 290:12 290:12, 291:9 293:2, 294:6 294:9, 294:10 295:13, 297:20 299:18, 301:20 301:23, 301:25 302:3, 302:14 302:17, 304:17 305:3, 308:10 315:10, 324:13	segment 114:22 116:7, 116:9 116:22, 118:9 segments 276:23 self-interest 294:3 selfishness 294:2 semi-annual 76:10 semi-industrial 221:15 semiannual 66:10 Senate 119:9 send 23:14 154:25, 157:8 157:21, 157:24 158:7, 226:17 239:5, 296:17 sending 255:7 senior 43:25 44:5, 56:13 64:6, 64:12 128:16, 128:24 129:6 sense 77:14 119:3, 123:18 165:21, 174:20 292:5 sensibly 113:5 sensitivity 11:12, 11:17 11:20, 64:2 sent 124:16 126:9, 133:19 145:21, 157:9 157:19, 239:6 253:14, 253:21 295:22, 311:3 sentence 318:18 318:20, 319:4 319:25, 320:13 320:14 sentences 320:18 separate 126:12
scale 201:8 303:16 scenario 310:19 schedule 59:6 59:9, 59:14 94:15, 122:3 283:2, 283:10 scheduled 165:5 scheduling 156:15 schematic 116:18, 202:14 school 70:3 71:24, 82:24 148:3, 183:19 schools 55:21 62:17, 64:22 66:21, 67:9 83:7, 119:4 140:12, 151:2 Schreiber 57:10 57:13, 57:18 Schreiber's 57:12 science 10:10 61:20, 121:12 176:14, 198:17 198:18, 198:18 230:14 Sciences 198:17 scientific 65:25, 67:5 68:16 scientist 44:1 56:13, 58:15 64:6, 64:13 176:6, 176:16 Scientists 56:13 scope 119:22	Seal 15:4 seals 15:2 15:6, 122:10 122:11 season 188:4 188:4, 188:8 sec 267:25 268:15 second 42:12 57:8, 59:4 67:12, 77:2 81:14, 86:24 110:24, 131:6 138:1, 140:2 158:18, 174:19 190:6, 214:11 214:22, 228:17 229:19, 257:14 258:5, 292:12 312:17, 330:4 secondary 168:14, 244:19 244:22	sections 164:21 230:4, 311:12 sector 1:4 11:18, 13:9 17:9, 17:10 19:10, 41:11 42:9, 44:20 46:15, 111:13 119:21, 231:24 233:4, 233:24 262:12, 262:23 302:25, 303:3 303:4, 303:11 309:10, 310:22 314:12 sectors 111:5 250:16, 258:16 262:19, 310:10 310:20, 310:23 314:12 secure 77:20 231:24 see 21:15, 23:6	26:5, 26:14 26:23, 32:5 32:18, 34:12 36:9, 38:14 54:17, 87:13 89:2, 90:1 92:7, 94:14 97:16, 99:10 100:15, 100:15 101:5, 116:10 117:22, 121:3 124:25, 134:8 134:17, 136:14 138:24, 138:25 139:3, 139:6 139:7, 139:7 139:14, 140:17 140:22, 141:12 141:16, 142:17 142:22, 142:22 142:23, 142:24 145:11, 145:12 146:8, 149:6 156:12, 159:1 159:11, 161:5 164:14, 172:6 172:6, 173:25 174:17, 175:8 185:13, 198:3 199:14, 200:5 200:9, 200:10 202:5, 202:6 203:19, 203:21 204:17, 205:1 206:3, 207:16 207:22, 209:1 210:21, 211:22 212:24, 213:24 214:9, 214:16 217:21, 219:6 219:7, 224:5 224:6, 226:20 228:15, 237:11 238:22, 242:22 253:16, 254:22 261:24, 262:4 271:3, 279:23 281:1, 286:22 287:18, 288:10 290:4, 290:9 290:10, 290:12 290:12, 291:9 293:2, 294:6 294:9, 294:10 295:13, 297:20 299:18, 301:20 301:23, 301:25 302:3, 302:14 302:17, 304:17 305:3, 308:10 315:10, 324:13	

205:12, 275:1 276:21, 277:25 285:14, 312:14 separated 126:7 separation 126:5 September 1:10 10:22, 12:11 12:14, 13:16 17:4, 18:18 18:24, 20:11 86:15, 90:12 90:19, 96:2 112:1, 121:24 122:4, 122:9 122:13, 127:25 130:3, 188:5 204:16, 235:16 283:17, 332:8 sequence 116:16 series 86:7 249:12 serious 27:9 28:15, 50:20 55:12, 75:1 75:11, 75:15 seriously 42:8 138:15, 149:1 serve 38:3 60:20, 110:6 110:20, 145:7 286:16, 293:25 served 198:24 267:2 serves 72:24 service 1:20 4:10, 9:8 20:8, 20:12 28:20, 29:23 29:25, 32:20 32:22, 32:24 33:9, 33:11 53:5, 55:7 55:8, 72:19 72:25, 84:7 101:1, 138:21 170:14, 198:16 198:19, 198:24 199:6, 200:15 201:19, 206:21 212:5, 212:6 212:8, 214:7 220:10, 220:17 223:18, 226:17 227:21 Service's 91:2 services 13:10 72:23, 110:8 110:10, 159:12 199:1, 199:2 230:9, 230:11	session 10:17 25:7, 102:19 132:17, 154:22 155:5, 282:14 283:17, 295:11 sessions 27:18 132:15, 232:13 295:12 set 25:18 55:23, 58:6 59:16, 60:7 62:14, 78:14 91:25, 99:5 99:15, 101:1 101:4, 117:10 117:10, 119:16 122:3, 136:7 151:22, 155:23 174:11, 207:14 220:6, 242:8 242:11, 243:21 243:22, 244:4 244:19, 245:2 250:24, 251:3 257:16, 307:10 307:15, 321:21 332:11 sets 90:9 284:24, 285:16 322:15 setting 265:6 settings 242:23 282:6 settled 128:1 seven 141:10 176:4, 176:17 277:19 severely 50:12 shaking 238:14 238:21, 261:23 261:24, 281:19 shale 144:10 share 23:18 26:11, 54:2 65:20, 100:4 113:17, 131:5 148:14, 154:12 199:8, 199:19 199:20, 231:13 231:15, 231:15 231:16, 267:22 271:6, 271:8 271:9, 304:20 308:14, 308:18 sharing 149:25 199:21, 297:4 297:14 Sharon 131:21 134:2, 134:6 134:8, 134:16 she'll 34:1	56:17 Sheehan 6:14 31:14, 109:20 sheet 17:2 17:8, 145:17 shift 38:13 95:22 Shimanek 8:5 29:20, 69:19 69:20, 69:23 70:1, 70:2 72:17 shop 90:14 short 40:11 40:12, 95:9 109:25, 298:10 298:11, 312:25 short-lived 286:12 short-sighted 143:23 short-staffed 76:22 short-term 95:3 153:14, 286:11 shortage 141:3 141:5, 142:5 144:10 shortages 141:4 shorten 102:2 shorthand 29:9 53:25, 332:10 shortly 22:6 263:3 Shoup 8:19 134:5, 149:5 149:6, 149:7 149:8, 149:12 149:15, 149:19 149:22, 149:23 149:24, 151:25 show 50:22 63:2, 99:1 116:14, 154:10 204:11, 207:1 207:5, 207:17 211:8, 216:10 317:23, 318:2 318:10, 318:14 showed 204:2 206:3, 206:8 208:9, 216:5 216:7, 223:15 302:25 showing 89:21 203:22, 209:20 216:23, 247:20 300:3 shown 36:4 42:16, 45:12 48:23, 206:23	shows 87:7 88:4, 88:12 121:2, 207:3 209:10, 210:5 210:6, 216:14 227:15, 273:9 281:3, 314:2 Shpall 7:5 32:1 shpallc@gtla... 7:9 shutdown 92:20 shutting 142:7 side 93:25 183:16, 183:17 200:2, 204:18 233:23, 277:18 281:8, 327:13 sides 138:7 138:16, 146:16 Sierra 3:12 53:24 sign 145:14 sign-in 145:17 signal 145:17 signatures 204:3 signed 134:11 134:13, 148:13 significance 60:19 significant 13:9, 47:13 53:19, 54:24 60:7, 77:8 90:18, 93:22 121:13, 124:25 177:17, 177:19 178:21, 213:15 216:12, 235:11 272:14, 272:14 273:10, 286:23 308:13, 311:21 significantly 50:5, 54:7 124:18, 287:10 303:7, 308:17 silver 87:25 similar 76:1 111:4, 112:6 148:15, 168:25 207:15, 208:10 304:20, 304:22 308:14 similarly 70:24 90:13, 207:25 208:19 simple 151:21 169:10, 325:6 simply 36:18 38:11, 51:13	51:23, 75:12 92:18, 118:5 292:7 simultaneously 262:17 single 16:4 40:5, 92:16 92:16, 193:17 sins 294:2 SIP 240:17 256:25, 259:9 312:20, 313:9 SIPs 248:1 312:7, 312:9 312:10 sir 220:4 220:21, 222:21 326:13 SISK 6:14 sister 8:19 43:8, 44:16 145:12, 145:23 146:5, 146:9 146:12, 146:13 146:19, 149:4 231:20, 231:21 232:14 sit 116:24 242:21 site 12:19 66:10, 66:25 90:10, 126:8 178:10, 179:5 187:21, 194:21 302:13, 305:21 306:20, 318:3 sites 57:2 59:22, 67:8 67:14, 67:20 103:14, 117:7 126:6, 151:2 178:2, 179:2 186:12, 249:8 302:10, 305:6 siting 306:8 306:23 sitting 26:1 144:20 situated 70:24 situation 281:5 291:24 situations 85:24 Sive 213:19 213:25, 214:4 214:13, 214:18 214:20, 214:24 214:25, 215:4 215:8, 215:25 216:1, 225:3 225:6, 225:8
--	---	---	--	---

Volume 1
9/20/2021

EIB Ozone Hearing

225:16, 226:22 226:25, 227:2 227:4 six 82:2, 95:4 116:18, 124:23 225:10, 225:10 240:15, 242:11 242:12, 243:19 267:2 six-week 208:18 Sixteenth 7:16 size 91:3 124:14, 144:25 178:19, 271:15 sky 7:22 221:14 slammed 157:23 slash 151:8 slide 115:23 116:10, 117:9 121:2, 200:10 207:1, 208:10 209:10, 209:20 210:19, 214:14 216:14, 232:16 234:13, 272:21 274:15, 274:22 302:4, 308:10 330:14 slides 200:2 200:11, 206:23 216:5, 218:20 223:15, 267:23 270:3, 271:3 274:5, 274:9 274:21 slightly 124:5 222:19 slot 282:20 284:6, 290:6 slots 284:6 slow 215:24 286:14, 300:13 300:13 small 51:5 51:7, 51:14 51:19, 88:21 95:12, 98:25 233:14, 291:18 292:3, 292:20 293:17, 328:23 smaller 51:3 51:25, 91:7 101:22, 242:15 242:15 smells 147:8 Smitherman 91:18, 95:5 263:25, 264:5 264:8, 264:11 264:15	smoke 15:8 207:8 smoothly 329:16 snack 132:7 so-called 81:1 social 63:25 71:3, 78:19 177:19, 301:10 society 138:18 295:3 soft 135:1 265:19, 290:17 softer 265:16 solar 7:19 7:21, 19:4 32:9, 32:21 32:23, 33:8 33:12, 33:19 90:25, 129:23 130:2, 130:6 130:9, 140:24 140:24, 141:21 207:20, 207:21 Solaris 7:2 123:9 solely 216:11 solid 44:10 Soloria 2:11 22:6, 22:7 solution 94:25 108:18, 227:13 solutions 61:22 85:16, 86:7 solve 77:22 78:6, 88:1 somebody 38:22 197:12, 224:20 somewhat 59:9 59:14, 87:24 330:4 son 140:7 soon 22:23 285:12, 296:18 sore 244:15 sorry 31:25 70:1, 97:8 100:17, 134:6 134:21, 142:13 145:6, 157:25 159:15, 162:3 162:6, 162:9 162:18, 162:19 163:22, 164:25 172:12, 172:12 173:21, 174:10 174:13, 184:4 184:19, 184:24 185:9, 196:12 207:21, 214:1 217:15, 217:17 224:8, 226:25	228:14, 228:21 228:22, 228:24 229:18, 236:9 242:1, 242:17 242:20, 243:13 261:5, 264:13 264:14, 268:12 271:17, 273:14 274:21, 277:3 283:11, 295:16 300:12, 304:18 315:8 sort 34:17 35:9, 37:22 38:17, 86:22 137:19, 221:15 221:21, 225:17 225:23, 272:2 276:17, 289:5 sound 26:8 61:20, 243:7 265:2, 282:10 sounds 34:9 256:25, 256:25 source 11:18 11:18, 11:20 12:9, 12:12 13:18, 15:13 16:4, 16:9 20:4, 56:8 59:4, 75:23 82:20, 93:22 169:6, 202:16 205:1, 207:8 230:18, 246:11 258:16, 301:7 302:23, 310:17 317:22, 318:6 source-by-so... 52:11 sources 13:9 14:2, 14:6 14:6, 14:21 15:8, 16:8 16:11, 16:14 41:18, 42:5 44:21, 46:23 47:8, 47:14 48:13, 49:21 52:2, 52:20 61:19, 64:8 77:3, 81:18 104:21, 111:7 119:8, 121:9 169:1, 201:3 201:7, 202:14 202:18, 204:9 204:12, 205:4 211:5, 211:10 211:14, 213:18 216:6, 216:12	248:14, 249:15 250:12, 251:1 258:1, 259:20 260:4, 260:8 260:10, 260:12 260:14, 260:14 260:15, 260:16 262:13, 272:12 272:12, 273:12 275:12, 275:13 275:14, 276:1 276:14, 285:11 298:13, 298:16 299:2, 299:4 299:24, 302:7 303:17, 306:2 314:10, 317:17 317:18, 318:15 318:22, 319:10 319:12, 319:20 319:22, 320:2 320:7, 320:9 320:20, 327:11 South 13:13 Southeast 88:6 88:8, 147:5 176:19, 205:23 260:10, 292:15 Southeastern 302:15 Southern 176:20 Southwestern 67:18, 67:21 67:21, 183:17 span 301:11 speak 23:15 24:20, 31:12 69:20, 71:20 108:12, 129:8 132:16, 133:23 147:19, 152:4 158:13, 234:9 242:4, 243:3 243:12, 265:15 266:2, 282:17 284:5, 292:23 319:19, 319:20 319:25 speakers 202:1 speaking 21:21 24:16, 27:15 35:11, 100:5 100:6, 129:13 132:13, 238:13 290:2, 315:7 speaks 269:9 270:20 special 177:21 203:23, 231:16 specialist 4:12 129:3, 176:6	176:19, 230:17 specialists 186:13 specialized 206:11 species 206:19 specific 34:5 45:15, 49:19 156:9, 160:17 165:15, 194:20 195:18, 220:19 233:9, 266:23 285:3, 304:4 specifically 41:16, 96:20 102:12, 130:11 221:3, 274:10 315:20, 317:5 specification 195:24 specifications 188:24, 189:7 189:13, 195:18 195:25, 196:18 specifics 183:12 specified 83:6 196:16 specifies 178:9 specify 105:16 188:3 specs 203:16 spell 133:21 135:5, 136:22 143:5, 149:14 152:15, 166:7 175:12, 185:16 214:22, 229:1 265:21, 284:1 290:24 spelled 152:17 152:18, 166:8 185:17 spelling 136:24 139:15, 139:16 143:5, 146:7 185:16, 229:2 239:15, 265:21 283:25, 293:3 spend 114:18 114:23 spending 88:9 276:8 Sperling 6:14 31:9, 31:15 109:19, 109:20 spike 207:24 spirit 112:9 112:10 spiritual 153:12
--	---	---	---	--

Volume 1
9/20/2021

EIB Ozone Hearing

spite 295:7	111:21, 118:22	244:4, 245:1	148:14, 148:23	101:9, 101:13
split 200:5	233:3, 234:17	245:9, 251:3	150:15, 151:10	102:3, 102:4
305:2, 305:4	238:7, 285:13	251:14, 287:2	151:11, 151:12	107:11, 107:15
327:13	stamp 91:17	308:12, 312:8	153:18, 176:16	109:12, 109:15
spoke 101:7	stand 282:15	320:5	177:20, 179:2	109:25, 113:14
spot 131:12	291:25	standpoint 72:2	181:17, 188:4	114:1, 114:16
142:21, 195:15	stand-up 282:14	153:13	198:21, 200:24	122:24, 123:2
spotty 100:13	standard 47:16	standpoints	200:25, 219:12	123:4, 129:20
spreadsheet	60:15, 73:2	138:17	230:10, 232:14	166:18, 288:12
13:20, 14:8	74:19, 77:18	stands 208:14	233:19, 234:7	288:13, 289:21
14:10, 14:11	105:19, 121:17	208:20, 211:4	240:17, 240:18	306:22
14:13, 15:2	136:9, 139:15	Stanford 4:7	246:14, 247:4	statements
15:6, 15:12	143:5, 146:7	STAR 13:6	247:5, 247:7	23:18, 23:19
16:2, 16:7	180:7, 185:15	15:21, 15:23	247:8, 247:10	27:19, 32:15
16:17, 16:20	187:19, 221:8	17:7, 18:2	247:16, 247:21	40:24, 88:22
17:17, 17:19	226:5, 226:22	start 78:10	249:16, 250:1	100:20, 100:22
17:20, 18:4	226:24, 227:1	124:3, 134:5	252:19, 260:16	100:25, 137:10
18:10, 18:11	227:2, 227:12	151:9, 159:4	285:22, 286:2	226:2, 307:2
19:2, 19:7	229:1, 239:15	162:12, 188:9	286:5, 287:1	307:5
19:11, 19:17	243:20, 243:22	255:12, 270:2	287:5, 291:25	states 43:19
20:2, 27:22	243:23, 243:23	271:18	298:19, 299:24	49:7, 60:19
100:24, 101:3	244:22, 244:23	started 313:20	304:19, 304:22	60:21, 75:18
155:8, 155:11	245:4, 245:11	321:7	304:25, 305:11	75:25, 110:7
155:13, 155:17	245:11, 245:18	starting 97:10	309:11, 310:17	112:8, 188:4
158:10, 174:8	245:19, 247:1	111:14, 150:22	310:23, 310:24	201:19, 204:1
174:11, 239:5	248:21, 249:9	162:4, 271:11	311:17, 313:1	245:14, 250:14
spreadsheets	249:22, 251:15	284:14	313:14, 314:3	286:22, 301:12
49:13	252:1, 252:3	starts 135:11	316:24, 318:5	304:2, 312:7
squirrel 224:9	252:25, 265:21	137:2, 139:19	318:17, 320:3	322:18, 322:19
srb@modrall.com	293:2, 299:14	146:8, 149:18	320:9, 320:11	statewide 44:18
6:16	299:22, 301:20	152:21, 166:15	320:11, 320:22	231:23
St 2:18	302:2, 302:9	175:17, 185:19	320:24, 322:13	stating 301:19
stack 13:20	308:8, 308:25	291:3, 293:10	322:19, 326:11	station 19:5
19:2, 40:11	313:6, 314:10	state 1:1	326:12, 332:1	118:18, 179:19
40:12, 207:8	317:25, 318:3	41:15, 42:13	state's 42:15	179:23, 183:8
330:14	319:18, 320:25	44:14, 46:1	78:10, 256:13	183:15, 192:25
staff 54:11	321:17	47:2, 49:23	304:16	193:4, 207:9
62:1, 69:13	standards 12:9	52:16, 52:25	state-only	218:23, 219:1
79:5, 80:21	12:9, 12:12	55:2, 59:5	276:14	219:4, 219:6
120:4, 176:10	12:13, 13:17	74:22, 74:24	stated 37:11	219:7, 219:9
186:7, 202:11	13:18, 15:13	75:4, 75:7	41:21, 193:17	223:9
202:13, 202:18	16:11, 16:13	75:11, 76:22	257:9, 299:20	Stationary 13:9
230:7, 240:15	17:9, 18:17	88:14, 88:17	316:20	13:14, 13:24
241:3	20:3, 20:5	88:18, 88:23	statement 8:2	14:2, 14:5
stages 58:2	41:21, 41:23	89:4, 95:16	8:3, 8:4, 8:5	14:6, 14:23
124:21	46:16, 47:3	96:4, 101:20	8:6, 8:7, 8:8	stations 12:16
staggered 122:3	49:19, 49:25	101:25, 102:1	8:9, 8:10	12:17, 12:19
stake 154:5	53:1, 75:13	105:3, 106:3	8:11, 8:12	103:15, 116:17
stakeholder	102:15, 104:10	106:6, 107:21	8:13, 8:14	117:7, 117:23
28:1, 45:4	104:14, 104:16	108:23, 108:25	8:15, 34:5	122:1, 122:12
158:20, 160:25	104:22, 105:7	109:6, 110:21	36:5, 41:1	122:16, 177:21
161:11, 185:5	105:14, 105:18	111:11, 112:17	41:1, 41:4	178:4, 180:9
228:5, 231:1	111:10, 119:24	115:16, 115:21	41:7, 53:9	181:23, 192:23
231:11, 232:18	136:6, 167:12	118:15, 119:12	53:11, 61:6	218:24, 223:11
234:20, 235:13	177:23, 187:12	120:23, 130:19	61:9, 61:12	statistic 187:9
263:1, 276:7	187:16, 200:19	135:20, 135:22	69:17, 69:19	statistics
stakeholders	210:15, 210:18	135:23, 136:3	72:15, 72:20	45:21, 220:10
44:14, 45:9	210:25, 219:16	137:17, 137:24	73:14, 73:17	status 11:13
48:7, 49:15	233:5, 233:6	138:2, 138:21	73:22, 79:1	111:9, 187:10
70:25, 107:23	233:7, 240:22	140:9, 145:7	84:6, 84:11	252:20
108:15, 109:2	242:9, 243:25	146:23, 148:3	84:12, 98:3	statute 41:22

46:9, 46:22 47:1, 47:17 102:9, 102:9 102:25, 104:19 105:5, 105:8 105:23, 106:22 106:25, 107:9 119:9, 132:22 233:25, 249:3 298:15, 299:18 299:21, 299:23 300:2, 302:6 307:21, 309:13 313:23, 314:4 317:10, 318:19 319:19, 319:25 322:13 statute's 47:2 statutory 86:19 120:12, 248:18 249:17, 250:10 299:11, 314:1 317:14 stay 132:11 251:9 steep 63:2 stellar 44:8 stenographic 332:10 step 74:2 100:13, 153:11 184:6, 287:9 stepped 170:22 170:23, 172:7 172:25, 218:6 255:22, 261:4 324:11 stepping 287:4 steps 42:8 319:9 steward 189:16 stick 33:15 stocks 140:4 Stoneking 131:22, 134:2 134:17, 134:17 134:18, 134:19 stop 95:21 216:2 stop-clock 284:2 stopping 133:12 153:10 storage 18:4 20:5, 59:23 59:24, 62:22 68:24, 69:1 82:5, 82:11 92:6, 92:9 103:8, 110:19 127:7, 128:18	129:9 story 96:8 stoves 116:4 strange 147:12 strategies 43:1 43:1, 109:4 240:12, 240:14 241:4, 252:9 263:13, 272:7 285:4, 285:4 310:25 strategy 10:17 10:19, 11:16 17:11, 160:10 233:11, 272:6 296:9, 323:1 streamline 123:24 Street 3:4 3:18, 5:4, 5:7 5:12, 6:4 6:15, 6:21 7:6, 7:16 strength 295:6 strengthen 54:23, 71:19 73:8, 76:8 153:5, 154:14 strengthened 72:14 strengthening 72:4 strictly 216:24 strike 32:19 32:21, 34:13 39:8 striking 35:24 stringent 104:16, 232:4 232:5, 252:4 252:6 stripped 75:2 stripper 81:1 strong 54:3 54:11, 61:20 61:25, 70:9 75:24, 78:9 82:25, 83:25 147:25, 147:25 149:1, 232:21 295:7 stronger 59:11 150:25 strongest 54:18 74:15 strongly 61:23 73:7, 150:2 struck 38:1 structured 23:6 23:8 structuring	48:11 struggling 24:20 Stuart 6:13 31:9, 109:18 268:9 student 4:3 4:4, 70:2 students 184:21 studied 167:20 208:15, 208:21 211:3 studies 56:18 64:17, 64:23 65:15, 65:18 65:25, 68:16 92:22, 93:1 203:5, 203:24 204:14, 204:20 208:9, 211:8 220:18, 230:15 240:21 study 11:8 11:10, 17:15 50:20, 65:2 67:13, 96:11 199:6, 203:25 204:16, 205:12 205:22, 206:7 206:8, 206:9 206:10, 207:3 208:9, 208:14 208:18, 209:22 220:15, 223:9 223:12, 310:10 stuff 38:12 138:12, 294:23 subject 103:15 112:13, 115:17 132:21, 132:23 155:25, 160:14 195:14, 253:18 306:25, 306:25 316:25, 317:16 317:17 subjected 296:23 submission 46:6 189:24, 312:16 312:18, 312:24 313:9 submissions 312:15, 313:11 submit 39:2 50:23, 76:10 148:13, 189:9 193:13, 193:16 193:17, 196:20 283:6, 283:8 283:22, 288:25 307:1	submits 189:21 190:3 submittal 34:18 254:8, 267:13 submitted 22:21 32:12, 33:16 50:3, 79:22 80:2, 81:4 155:22, 156:2 158:24, 167:25 177:1, 186:19 188:19, 190:4 199:2, 230:22 241:8, 258:13 259:25, 312:13 312:21, 313:11 submitting 33:21, 151:15 Subpart 12:9 12:11, 12:13 12:14, 13:17 13:19, 15:14 16:13, 16:14 17:20 subsection 155:16, 319:4 319:25, 320:2 320:14, 320:15 320:18 subsequently 208:2 subsidiaries 6:18, 114:7 substantial 45:11, 82:8 96:3, 98:19 235:1, 303:4 substantially 93:8, 96:2 195:16 substantive 89:25 substitute 36:22, 36:22 substituted 37:10, 37:11 37:20, 37:24 37:24 succeeded 50:18 successor 313:18 suddenly 94:20 sufficient 50:20, 98:15 250:7, 252:24 sufficiently 112:1 suggest 51:19 111:6 suggested 322:8 suggesting	254:6, 254:24 312:2 suggestion 37:9 85:7, 85:10 91:2 suggestions 62:6, 73:8 129:12 suggests 65:1 65:2, 66:8 98:7, 311:12 311:25 Suina 2:5 21:11, 21:13 172:20, 182:22 192:18, 193:2 193:8, 218:18 219:17, 237:18 261:10, 280:5 324:20 Suina's 223:8 suite 1:21 2:23, 3:5, 5:4 5:8, 5:13 6:10, 6:15 6:22, 7:6 7:11, 7:16 62:8 sulfur 178:17 242:14 sum 120:1 summaries 128:11, 291:22 summarize 55:17 128:14, 129:18 177:13, 231:10 241:23, 242:6 270:24 summarizes 117:9 summary 10:11 20:2, 98:17 120:1, 121:20 127:24, 210:23 271:2, 292:14 summer 232:21 312:18, 313:12 Sun 292:8 Sunland 246:15 313:10, 313:12 sunlight 80:11 202:3, 204:5 207:4, 209:12 super 65:10 65:11, 98:7 super-emitters 96:22 supervise 176:9 Supervising 4:5 supervisor 43:5 120:6, 176:7
--	--	---	---	--

176:20, 176:21 supplies 95:9 supply 114:22 116:14, 116:24 support 11:7 13:21, 14:14 15:13, 27:21 43:18, 46:2 47:18, 48:4 50:11, 51:6 55:18, 56:10 57:14, 58:14 59:13, 67:18 68:1, 68:9 68:22, 69:6 73:7, 76:9 77:2, 77:13 81:5, 81:15 81:25, 82:9 82:13, 82:25 83:2, 83:9 83:13, 85:4 115:2, 127:20 130:2, 150:2 151:15, 153:5 177:22, 230:10 250:17, 276:5 298:23, 310:7 310:16 supported 55:10 supporters 74:14 supporting 44:7 49:23, 50:13 62:2, 71:11 71:19, 71:25 74:4, 130:9 supportive 89:5 90:22, 93:14 123:22 supports 34:21 55:8, 61:23 80:18, 107:3 107:18, 122:21 127:15, 210:17 supposed 92:2 307:8 supposedly 141:2 sure 34:1, 54:3 70:21, 87:9 89:9, 93:15 99:8, 123:25 128:4, 132:10 138:13, 140:20 146:2, 146:2 151:7, 155:12 157:4, 158:16 158:23, 163:13 163:24, 196:2 213:23, 215:8	225:10, 226:21 235:9, 240:25 242:8, 243:21 249:6, 253:21 255:6, 257:20 259:16, 265:16 272:15, 272:19 276:9, 283:6 289:7, 296:12 330:9, 330:15 surest 68:20 surgery 315:23 surprise 94:19 296:23 surprised 315:19 surprises 33:15 94:19 surprising 295:25 surrebuttal 9:19, 9:19 9:20, 9:20 9:21, 128:4 131:4, 131:7 131:9, 131:10 131:13, 253:8 254:12, 255:3 264:2, 278:14 283:5, 295:17 296:2, 296:24 297:10, 297:13 297:19, 311:8 314:22, 316:17 321:6, 321:22 323:10, 326:23 329:12 surrounded 40:12, 150:11 328:9 surrounds 150:22 survey 203:25 204:16 Susan 18:7 18:8, 19:25 44:5, 64:3 Sustainability 77:7 sustainable 71:5 SWD 7:2, 123:10 swear 133:20 133:21, 135:3 136:19, 139:11 143:2, 146:3 149:11, 152:11 152:13, 166:10 175:9, 198:5 215:2, 229:6 239:16, 265:24	266:3, 284:10 290:21, 293:7 sweet 117:3 Swift 6:8, 31:7 31:11, 109:21 sworn 135:13 137:4, 139:21 143:11, 146:10 149:20, 152:23 166:23, 175:19 185:21, 198:8 229:14, 239:23 266:10, 283:24 284:16, 291:5 293:12, 297:8 Syd 134:3 synopsis 20:14 200:16 system 15:4 45:18, 59:23 59:23, 62:21 72:25, 116:14 148:3, 154:4 186:15, 189:10 systems 15:20 15:23, 17:22 17:25, 56:24 68:24, 82:6 82:10, 91:20 91:21, 110:19 180:3 T table 51:14 90:20, 90:20 90:24 Tables 90:23 122:2 tailored 51:14 tailpipe 207:8 take 25:3, 26:2 27:18, 52:20 53:20, 78:2 82:7, 84:5 90:14, 115:4 116:16, 117:16 120:9, 130:4 133:23, 134:6 134:14, 139:2 146:17, 147:14 148:20, 163:4 184:22, 193:15 214:14, 215:12 220:6, 227:25 243:11, 245:14 248:12, 251:19 251:20, 253:22 259:22, 260:7 267:19, 282:14 282:23, 283:14	302:14, 316:1 316:5, 319:8 taken 42:8 60:6, 73:6 83:21, 84:8 131:24, 132:20 132:23, 185:1 228:2, 271:20 283:15, 332:9 takes 95:8 189:18, 204:4 290:11, 306:11 talk 36:10 93:9, 99:14 116:8, 131:15 164:1, 201:11 204:4, 219:5 235:5, 243:19 275:10, 275:18 304:10 talked 274:22 317:9, 317:13 321:9 talking 94:8 106:3, 106:7 206:20, 210:20 217:14, 221:24 256:24, 265:3 270:4, 276:18 312:5, 325:12 328:8 Tammy 64:5 Tan 7:4, 32:2 tangr@gtlaw.com 7:8 tank 16:19 55:9, 59:25 59:25, 60:1 62:21, 69:3 92:16, 93:12 276:2 tanks 18:4 59:21, 62:22 62:23, 68:24 69:1, 82:7 92:17, 92:19 92:25, 93:13 103:8 Tannis 3:14 29:5, 53:13 tapers 207:24 target 47:8 49:18, 286:8 310:25 targeted 49:18 74:4, 165:16 targeting 306:3 targets 303:2 task 17:14 58:16, 58:25 119:16, 285:2	taxing 115:22 taxpayers 294:18, 294:20 team 44:9 tech 68:23 technical 10:20 11:7, 13:21 14:2, 14:14 15:5, 15:13 16:15, 20:10 20:12, 20:14 23:9, 24:2 25:8, 27:9 28:15, 32:13 33:21, 34:5 48:4, 49:16 49:23, 50:24 56:1, 58:5 79:21, 79:24 86:12, 112:11 113:1, 114:12 120:1, 120:5 120:10, 120:16 121:19, 122:6 129:24, 130:6 131:10, 137:13 137:15, 138:11 138:12, 138:20 155:5, 155:22 155:24, 156:2 165:6, 200:15 230:6, 233:2 233:8, 233:18 233:22, 233:23 234:2, 271:17 276:5, 278:2 281:7, 282:7 287:14, 288:10 288:15, 289:13 289:25, 307:7 310:7, 321:24 technically 58:7, 59:12 62:10, 69:10 85:20, 90:21 126:23 Techniques 12:7 13:15, 13:23 18:17 technological 28:16, 63:1 technologies 14:20, 18:20 68:3, 68:13 144:6, 144:18 technology 17:6 27:4, 68:25 91:7, 102:23 144:5, 233:20 266:20, 295:1 technology-b...
--	---	---	--	---

Volume 1
9/20/2021

EIB Ozone Hearing

102:21	263:13, 266:11	124:2, 127:4	314:22, 314:24	138:14, 138:21
tedious 161:25	297:9, 311:11	127:18, 127:22	316:15, 318:4	138:23, 139:13
293:18	testifies 274:6	127:25, 128:2	320:13, 321:9	139:18, 142:19
tell 34:18	testify 26:10	128:5, 129:3	321:24, 326:9	142:20, 143:4
64:2, 133:20	45:2, 45:20	129:25, 130:4	328:7, 328:21	143:8, 145:5
135:3, 136:19	45:24, 47:22	130:24, 132:21	330:9	145:8, 145:9
139:11, 143:2	48:16, 51:4	138:1, 138:7	testing 273:5	145:23, 146:6
145:18, 146:4	58:14, 58:14	138:10, 155:22	Tests 11:12	146:13, 146:14
149:11, 152:12	69:2, 69:12	155:24, 155:25	13:20	148:25, 149:2
166:11, 175:10	71:15, 72:5	156:3, 158:24	Texas 6:4, 6:10	149:3, 149:13
175:24, 215:3	73:9, 76:9	159:4, 160:3	111:11, 144:3	149:17, 151:23
225:4, 229:6	77:2, 77:13	160:18, 160:20	216:12, 216:15	151:24, 152:14
229:19, 239:17	88:11, 255:2	160:25, 163:3	246:16	152:20, 153:1
240:4, 254:7	262:11, 264:19	163:3, 163:6	text 27:9	153:1, 154:18
265:25, 266:4	264:21, 268:4	163:17, 164:22	27:10, 28:16	154:19, 156:20
283:24, 284:11	testifying	167:25, 168:3	256:2, 287:21	156:22, 158:8
290:21, 293:7	42:20, 110:4	168:7, 168:9	texted 171:8	158:9, 159:22
326:6, 328:15	127:20, 213:14	170:9, 173:15	thank 21:19	160:16, 163:9
telling 124:3	254:12, 273:24	174:3, 177:1	28:22, 29:1	165:8, 166:6
tells 136:8	277:4, 289:16	177:4, 177:8	29:2, 29:9	166:9, 166:13
temperature	testimony 10:8	177:10, 177:13	29:10, 29:15	166:16, 167:22
286:15	10:14, 11:2	183:21, 186:19	29:22, 30:1	170:10, 170:13
temperatures	11:22, 12:2	186:22, 187:1	30:2, 30:7	170:20, 170:21
188:23, 216:7	12:4, 18:7	187:3, 197:25	30:8, 30:10	170:25, 171:2
216:8, 286:10	18:12, 18:22	199:3, 213:12	30:22, 31:6	171:7, 171:11
temporary	19:14, 19:18	222:20, 227:6	31:22, 33:7	171:13, 171:15
154:12	19:22, 19:24	227:20, 230:22	33:18, 34:10	171:18, 171:22
ten 65:3, 65:23	20:6, 20:10	230:25, 231:5	34:11, 37:8	172:1, 172:5
93:1, 132:15	20:17, 20:18	231:7, 241:8	38:2, 39:6	172:11, 172:15
147:1, 157:24	22:16, 23:9	241:11, 241:13	40:10, 40:21	172:21, 173:3
292:5, 292:6	24:5, 24:8	241:17, 241:19	41:8, 53:7	173:5, 173:14
ten-page 50:12	27:20, 32:13	241:23, 241:23	53:15, 60:11	173:17, 173:19
ten-year 252:1	32:17, 33:3	241:24, 244:3	61:1, 61:4	173:20, 173:24
tend 99:1	33:15, 33:21	246:3, 250:20	61:7, 61:11	174:2, 174:15
tended 216:10	34:8, 34:20	253:8, 254:16	69:14, 69:15	175:5, 175:12
tends 143:23	35:7, 35:20	258:12, 263:18	69:18, 69:22	175:16, 175:23
143:23	35:23, 37:4	267:6, 267:8	70:6, 72:15	177:12, 178:6
terabytes 48:9	37:16, 39:9	267:9, 267:12	72:16, 73:11	180:10, 180:12
term 325:16	39:13, 39:21	267:16, 268:11	73:12, 73:18	180:15, 180:21
termed 311:20	39:22, 39:25	269:7, 269:20	73:21, 78:7	181:2, 181:3
terms 83:14	40:7, 45:13	270:1, 270:4	78:8, 78:23	181:6, 181:8
91:10, 102:2	45:15, 49:16	270:5, 270:9	78:24, 79:2	181:9, 181:24
165:25, 257:3	49:17, 50:3	270:13, 270:24	80:20, 83:23	182:1, 182:4
257:11, 257:11	50:15, 50:21	273:15, 273:18	84:1, 84:2	182:7, 182:9
257:22, 259:14	50:24, 52:22	276:25, 277:5	84:7, 84:13	182:10, 182:12
260:7, 274:24	54:20, 55:3	277:10, 277:16	97:21, 98:1	182:13, 182:23
289:4, 304:10	55:18, 56:14	277:20, 277:21	99:24, 99:25	182:24, 183:1
311:22	57:14, 58:22	280:12, 280:13	100:15, 100:15	183:20, 183:21
terrible 147:11	67:4, 68:1	281:12, 282:7	101:14, 107:13	183:23, 184:1
terrific 38:6	68:15, 72:1	283:6, 283:8	109:9, 109:13	184:2, 184:5
149:9, 239:10	72:1, 72:3	287:23, 288:17	113:11, 113:19	184:5, 184:9
239:13, 290:16	75:8, 79:24	289:1, 289:5	114:15, 115:4	184:11, 184:13
test 19:2	86:17, 89:24	289:10, 289:12	115:8, 122:24	184:15, 185:9
273:4, 307:11	93:4, 95:5	289:13, 289:25	123:3, 129:11	185:11, 185:15
testified 128:7	99:1, 104:17	290:1, 295:24	129:15, 129:16	185:18, 185:25
128:17, 128:21	105:10, 105:20	296:3, 297:19	129:21, 130:25	186:16, 187:6
128:25, 129:7	106:2, 106:19	297:22, 297:23	131:1, 131:23	189:23, 190:11
166:24, 175:20	107:3, 108:21	298:23, 298:24	135:8, 135:10	190:13, 190:16
185:22, 198:9	108:21, 117:11	301:14, 306:4	136:10, 136:12	190:21, 190:23
213:12, 229:15	120:1, 120:24	309:24, 311:8	136:18, 136:21	190:25, 191:3
239:24, 257:22	121:19, 123:25	311:11, 311:23	137:1, 137:7	191:4, 191:8

191:19, 191:20	260:19, 260:24	224:2, 238:1	195:2, 197:10	165:7, 167:6
191:23, 192:2	261:2, 261:3	238:17	201:13, 207:7	187:25, 188:2
192:3, 192:5	261:11, 261:12	themes 86:16	210:13, 214:10	193:13, 193:16
192:7, 192:8	261:15, 261:16	Theresa 1:20	216:6, 216:10	207:5, 207:17
192:10, 192:18	261:19, 261:21	24:17, 81:8	217:13, 217:14	215:13, 272:25
193:8, 193:9	262:3, 263:5	83:18, 162:19	218:19, 220:25	284:6, 286:16
193:11, 194:22	263:8, 263:17	239:15, 265:10	221:5, 221:22	291:16, 305:12
194:24, 195:5	265:23, 266:6	332:7, 332:21	222:7, 224:19	305:17, 308:18
195:7, 195:10	269:3, 269:6	thermo 179:13	224:20, 225:2	313:11, 327:9
196:24, 197:1	269:18, 270:20	179:17	225:8, 225:9	three-year
197:14, 197:15	274:16, 278:5	thief 60:1	225:14, 225:22	187:21, 187:24
197:18, 197:19	278:6, 278:9	82:7	227:6, 227:11	246:8
197:23, 197:24	278:15, 278:17	thing 35:9	227:14, 243:15	threshold 89:13
198:10, 199:7	278:19, 278:22	87:23, 91:23	253:24, 258:23	89:17, 89:23
211:18, 211:20	279:1, 279:2	93:16, 100:17	267:4, 269:20	92:9, 92:12
212:6, 212:12	279:3, 279:8	100:18, 100:18	271:21, 272:11	103:20, 103:22
212:15, 212:19	279:9, 279:11	125:1, 156:9	272:17, 272:19	121:1, 121:5
212:23, 213:1	279:13, 279:15	160:5, 165:3	272:22, 274:6	121:8, 298:18
213:4, 213:5	279:16, 279:17	219:14, 222:15	274:18, 274:23	302:11, 307:10
213:8, 215:5	279:18, 279:19	276:13, 293:17	275:3, 276:7	307:15, 308:24
215:6, 215:25	279:22, 280:6	328:12, 328:25	276:19, 278:1	thresholds
216:16, 217:7	280:7, 280:10	things 38:11	281:7, 281:11	51:21, 51:23
217:10, 217:20	281:12, 281:13	85:20, 86:21	282:14, 289:3	52:1, 93:6
218:4, 218:10	281:18, 281:23	88:25, 92:21	295:17, 295:25	96:7
218:18, 219:17	282:3, 282:12	93:2, 100:2	296:8, 308:18	throat 244:15
219:19, 219:19	284:13, 287:11	101:6, 103:8	309:5, 309:7	throw 145:19
219:22, 219:24	287:12, 287:16	137:15, 144:8	309:12, 314:19	155:2
220:1, 222:21	290:1, 291:19	151:1, 199:20	315:3, 315:6	thrust 86:22
222:23, 223:2	292:24, 293:1	210:10, 222:13	319:14, 326:21	thumb 200:11
223:5, 224:1	293:9, 293:16	223:19, 224:17	328:22, 329:2	tick 225:23
224:3, 224:4	293:18, 295:8	225:21, 272:22	329:15, 329:24	tied 63:14
226:6, 226:7	295:9, 296:19	294:8, 328:2	thinking 165:25	292:9
227:16, 227:18	296:20, 296:21	328:3, 329:16	third 58:8	Tijeras 2:23
227:23, 228:1	297:2, 297:5	330:3	82:4, 82:5	TIM 6:8
229:3, 229:9	300:16, 304:9	think 21:20	92:6, 158:20	tim.wilkins@...
229:11, 235:17	306:4, 309:17	34:14, 34:24	188:11, 188:12	6:12
235:19, 235:22	311:1, 311:9	35:4, 35:9	190:6	time 14:15
235:24, 236:8	314:14, 314:18	35:24, 35:25	thirteen 124:19	22:23, 23:13
236:10, 236:11	314:20, 314:23	37:14, 37:18	Thompson 64:5	24:20, 24:22
236:13, 236:14	314:24, 314:25	37:21, 37:23	64:6, 67:5	26:14, 26:23
236:16, 236:17	315:2, 315:11	38:3, 38:6	67:6	28:13, 34:3
236:19, 236:20	315:12, 315:14	38:7, 39:12	thorough 50:9	34:7, 42:8
236:25, 237:4	315:15, 323:4	40:7, 81:22	121:15	53:9, 53:15
237:6, 237:9	323:5, 323:23	86:9, 87:23	thoroughly	60:6, 60:11
237:10, 237:19	323:25, 324:3	90:17, 90:23	49:12	61:2, 62:1
237:20, 237:23	324:6, 324:7	92:11, 93:3	thought 123:15	63:6, 70:8
237:24, 238:3	324:8, 324:9	93:23, 94:3	162:10, 174:8	75:24, 78:2
238:18, 238:19	324:10, 324:22	94:9, 94:11	274:9, 274:20	78:8, 81:24
238:23, 238:25	324:25, 325:1	95:15, 99:2	277:6, 277:9	83:23, 91:17
239:19, 240:2	325:2, 325:4	102:7, 104:3	thoughts 23:16	91:18, 91:24
240:23, 242:5	325:24, 326:1	107:3, 128:7	129:12, 283:19	92:5, 94:21
243:5, 243:14	326:13, 326:15	128:10, 131:3	315:24, 316:3	95:4, 95:8
243:25, 246:17	326:17, 327:17	133:4, 136:1	thousand 124:16	99:20, 103:3
251:7, 253:5	327:19, 327:21	137:18, 142:15	thousands 74:13	103:9, 112:19
253:10, 254:9	327:25, 329:6	159:2, 159:8	147:1, 328:10	114:18, 114:23
255:8, 255:9	329:9, 330:16	160:20, 160:23	threats 78:21	124:2, 126:17
255:14, 255:16	330:20, 331:2	161:12, 161:14	78:21	128:12, 131:20
255:21, 255:25	thanks 53:5	164:13, 164:17	three 71:7	134:7, 134:13
256:4, 256:5	113:3, 113:5	165:4, 165:9	74:4, 76:7	134:14, 138:6
256:7, 258:20	158:16, 172:4	165:10, 173:25	116:22, 117:16	138:15, 140:2
258:22, 260:17	222:20, 222:20	174:11, 184:25	160:21, 160:22	145:14, 145:21

151:23, 154:18 154:21, 159:5 159:25, 161:3 164:2, 164:12 169:17, 179:21 193:17, 194:6 194:25, 195:16 196:6, 197:17 198:1, 203:22 206:12, 208:5 212:9, 227:24 232:1, 244:23 247:5, 252:14 253:7, 255:11 255:19, 255:25 260:6, 261:11 261:15, 269:12 270:22, 275:18 276:9, 278:12 280:11, 286:1 290:6, 292:13 292:18, 296:7 296:25, 297:14 302:15, 316:7 316:13, 324:21 324:25, 326:8 timelines 108:13 timely 251:15 times 65:3 80:16, 84:19 116:11, 132:4 204:18, 205:16 210:5, 211:6 223:22, 329:25 timing 165:19 165:25, 329:14 Timmons 5:6 30:3, 30:6 73:14, 73:20 tiny 242:25 tip 224:23 title 16:23 167:7, 176:5 186:6, 229:25 240:11, 263:12 titled 22:19 today 23:11 24:17, 27:18 28:25, 29:6 29:8, 29:21 41:9, 42:18 53:14, 54:13 68:13, 73:10 73:20, 74:21 75:10, 79:8 80:4, 114:16 130:24, 137:25 149:25, 151:1 153:25, 154:9 154:23, 158:23	163:6, 168:9 177:10, 187:4 199:4, 202:9 213:15, 216:5 231:8, 231:18 241:20, 253:14 259:8, 259:9 287:12, 311:11 314:24, 315:23 321:22, 330:9 today's 292:8 Todd 134:4 142:21, 226:20 told 46:16 Tom 58:5, 67:17 tomorrow 154:24 159:4, 165:3 274:7, 277:1 296:14, 311:6 328:14, 328:20 330:13, 330:24 ton 66:16 92:12, 103:24 120:21, 121:2 121:4, 121:7 121:12 tongue 224:24 tons 59:2, 59:3 65:23, 66:15 66:21, 66:22 67:9, 81:3 103:13, 104:1 tool 195:22 195:23, 245:22 274:2, 318:13 tools 307:18 318:13, 318:14 top 43:21 47:19, 55:1 55:11, 60:1 157:1, 196:12 topic 24:6 24:9, 65:18 67:25, 155:15 156:4, 156:6 156:25, 158:16 158:20, 166:22 222:19, 229:13 230:23, 235:18 239:4, 239:22 253:9, 263:24 266:9, 283:5 topics 27:23 101:4, 108:7 127:24, 155:8 155:14, 156:7 157:7, 158:6 158:13, 159:5 160:22, 241:24 264:20, 269:14 328:13, 328:24	329:4 topography 245:16, 301:2 304:20, 309:1 total 20:2 85:1, 88:13 124:19, 169:4 205:14, 209:17 225:21 totals 275:7 touched 330:7 toughest 54:15 toxic 67:16 tpy 16:2 tracer 213:17 213:19, 215:8 tracers 208:22 tracings 314:13 tracking 28:8 tracks 150:15 trading 27:1 traditional 65:1, 65:8 traditions 148:8 tragedy 150:11 trajectory 205:21 Trans 114:8 TransColorado 6:18 transcript 1:8 10:5, 24:11 24:12, 24:15 24:16, 24:17 25:1, 133:22 161:18, 161:24 transcription 332:12 transfer 17:6 127:5, 128:18 309:3 transfers 16:20 93:17, 127:6 Transition 285:5 translate 55:25 56:6 translated 54:18 translates 56:3 transmission 6:19, 12:17 14:19, 19:6 20:4, 114:8 114:21, 115:15 116:7, 116:17 118:7, 118:18 121:25, 122:12 122:15 transparency	50:13, 64:1 74:6 transparent 76:15 transport 13:8 88:25, 201:9 206:6, 216:14 303:20, 312:19 transportation 13:5, 46:15 110:13, 142:18 169:21, 205:5 205:5, 252:12 262:22 transportati... 257:14, 257:25 258:5 transported 117:6, 202:15 208:7, 301:5 transports 115:11, 117:2 Taurig 7:5 32:1, 123:7 Travis 29:20 70:1 treated 125:7 treatment 126:5 144:17 Tree 204:25 205:11 tremendous 61:25, 80:21 281:6 trend 89:18 124:25, 225:11 225:12, 302:11 trending 225:15 trends 177:17 203:18, 226:3 Trent 120:4 tribes 233:13 245:14 trick 199:17 tricky 199:19 tried 25:20 140:24 triennial 34:22 triggered 245:3 314:8 triggers 245:6 252:10 trivial 86:1 trouble 26:17 troubling 88:15 126:16 Truck 16:19 trucked 126:7 trucks 258:1 true 25:11 88:24, 120:22	148:23, 317:4 321:12, 326:25 327:5, 332:12 TRUJILLO 2:6 156:20 Trujillo-Davis 157:3, 157:16 172:23, 182:25 183:1, 183:7 183:11, 183:20 193:10, 193:11 194:4, 194:10 194:14, 194:22 195:2, 195:5 219:23, 219:24 237:21, 237:22 261:13, 261:14 280:8, 280:9 281:11, 324:23 324:24 truly 43:21 Trump 75:2 truncated 188:13 truth 133:21 135:3, 136:19 139:11, 140:3 140:4, 143:2 146:4, 149:11 152:12, 166:11 175:10, 215:3 229:7, 239:17 265:25, 266:4 283:25, 284:11 290:22, 293:7 try 25:23 41:24, 94:21 138:16, 140:17 156:6, 163:24 199:21, 199:23 257:19, 272:8 330:18 trying 85:15 91:19, 91:22 102:2, 138:4 145:25, 150:10 150:20, 163:7 194:23, 268:6 270:4, 296:9 311:16, 330:1 TSD 11:17 11:19, 11:20 14:14, 14:16 20:5 Tuesday 131:6 turbine 128:21 129:25, 130:14 210:17 turbines 7:19 7:21, 13:20 13:24, 14:11
---	---	---	---	---

14:12, 15:6 19:4, 32:9 32:21, 32:23 33:8, 33:12 33:19, 90:2 90:8, 90:14 90:24, 90:25 91:12, 122:1 122:4, 129:24 130:2, 130:7 130:10, 130:18 130:20, 130:22 turn 27:14 29:25, 32:13 72:7, 73:13 89:11, 118:16 121:7, 132:6 132:7, 149:5 154:5, 172:16 182:15, 185:3 192:13, 198:1 204:6, 218:11 235:20, 237:11 243:2, 261:6 265:10, 265:14 279:23, 324:12 turned 28:7 turning 45:13 89:25 tweaked 157:12 tweaking 93:5 tweaks 90:25 two 22:24 32:19, 38:6 38:9, 38:19 42:15, 42:21 43:22, 44:13 54:12, 63:13 92:12, 100:2 100:2, 100:7 101:6, 105:10 112:19, 114:25 116:19, 117:16 119:7, 130:25 142:6, 150:19 158:19, 160:22 191:9, 199:21 209:3, 211:5 211:8, 215:10 215:13, 215:14 215:16, 216:2 234:14, 245:25 252:1, 285:14 285:16, 286:9 298:4, 301:25 302:9, 303:7 303:12, 303:13 305:3, 308:12 309:14, 312:14 326:22, 328:2 328:3, 329:10	two-fold 216:1 two-ton 95:20 TX 17:6 type 195:14 260:15, 275:14 318:7 types 178:10 204:8, 204:9 205:4, 317:16 typical 125:18 126:13, 207:23 215:11 typically 59:25 118:3, 118:19 169:12, 187:12 208:23, 288:21 U UA 107:25 UCLA 77:6 Uh-huh 173:16 222:22 UIC 126:11 UK 329:2 ultimately 51:13, 109:1 110:17, 112:17 112:25 ultraviolet 179:14, 179:20 umbrella 249:18 unable 134:12 191:5 unacceptable 92:18, 99:15 unavoidable 99:9 unborn 78:20 unclassifiable 245:23 unclear 23:3 329:11 Unconventional 12:19 underestimated 66:6 underfunded 76:22 undergoing 82:16, 263:1 undergone 64:2 underground 124:7, 125:8 underlying 39:1 48:11 underpinnings 67:5 underreprese... 70:18 underscore 67:6	underserved 70:11, 71:16 understand 33:8 35:23, 38:22 116:15, 133:1 147:10, 150:19 163:16, 164:6 167:14, 169:18 179:7, 193:1 259:16, 260:2 277:18, 327:21 328:16, 329:25 330:1 understanding 35:13, 37:4 38:20, 39:7 140:15, 289:24 314:4 understands 34:1, 57:13 understood 165:19 undertake 57:20 321:18 undertaken 45:25, 107:1 248:25, 249:11 undertakes 306:16 undertook 234:6 unemployment 292:8, 292:10 292:12 unethical 148:5 unfortunately 273:11 unhealthy 63:5 63:7, 64:9 74:23, 287:4 uniform 180:8 uniformity 180:8 unintelligible 97:5, 97:7 259:18, 259:19 unique 75:6 103:18, 104:3 116:9, 126:21 204:2, 204:9 204:25, 275:17 304:4 uniqueness 114:21 unit 43:1, 43:4 43:15, 108:4 126:10, 128:22 240:14, 240:18 241:4, 322:17 unite 70:25 United 43:19 110:7, 204:1	units 72:25 91:11, 124:9 124:17, 127:9 129:10, 276:2 University 4:6 29:18, 56:12 58:17, 58:18 70:2, 167:20 176:15, 230:15 233:19, 266:18 266:19, 266:19 unloading 19:10 67:25, 68:4 68:5 UNM 39:10 unmute 133:24 134:20, 152:1 152:3, 191:5 unmuted 26:22 97:17, 213:23 298:7 unmuting 145:12 284:9, 293:3 unreacted 207:6 unreasonable 296:23 unreliable 141:21 unrestricted 309:3 unusual 147:13 189:14 unworkable 85:22 upcoming 294:19 updated 13:15 18:11, 19:11 310:17 uploads 179:2 upstream 116:18 118:2 upward 225:12 302:21 urban 203:19 205:7 urge 60:25 83:12, 83:13 83:25 urgent 148:20 USA 6:2, 18:20 31:5, 55:1 62:8, 83:10 107:17, 108:4 108:8, 108:15 108:20, 109:1 USA's 107:21 107:24, 108:2 108:5, 108:19 108:21, 108:22 use 59:22, 68:2 68:25, 82:5	82:14, 116:4 124:12, 144:13 144:17, 148:2 177:18, 179:10 195:13, 205:9 265:19, 271:1 272:11, 304:12 304:21, 305:23 318:13 useful 35:14 112:5, 138:8 users 116:1 117:22, 119:3 uses 116:5 179:13, 190:4 274:1, 313:16 usual 145:17 usually 209:15 222:1, 222:2 Utah 16:18 75:19 utilize 143:18 utilized 216:2 218:25 V V-I-M-O-N-T 198:12 V2 158:5 vague 275:8 validate 186:13 validation 180:5 validity 50:25 188:20, 190:2 valuable 220:15 value 89:16 151:20, 187:7 187:9, 187:23 188:17, 189:14 190:9, 190:10 191:13, 191:16 192:21, 193:14 193:15, 193:21 194:9, 194:11 219:10, 246:6 246:7, 299:12 301:17, 301:20 316:21, 316:22 316:23, 317:6 values 45:22 45:22, 46:25 179:6, 187:7 187:12, 187:14 188:1, 189:25 192:23, 193:5 193:5, 194:13 194:16, 194:19 208:12, 208:19 valves 294:13
--	---	--	--	--

Vapor 17:5	172:22, 172:23	225:3, 226:1	280:19, 285:21	walk 38:17
variations	182:25, 183:1	226:21, 226:23	286:18	117:1, 132:6
196:23	183:7, 183:11	227:1, 227:3	VOCs 56:16	155:9, 155:9
variety 79:12	183:20, 193:10	227:5, 227:9	56:16, 59:2	174:9, 231:14
201:17	193:11, 194:4	227:10, 227:18	60:4, 63:9	241:22
various 108:15	194:10, 194:14	227:22, 315:5	63:18, 65:24	walked 115:3
112:14, 121:17	194:22, 195:5	315:7, 315:8	66:15, 66:16	walking 277:17
147:3, 178:4	219:22, 219:24	Vince 120:5	67:10, 67:16	want 25:24
203:13, 206:19	237:21, 237:22	violated 167:13	73:5, 80:6	33:13, 38:9
223:22, 241:24	261:12, 261:14	violating	80:9, 80:11	38:10, 40:1
276:22	280:7, 280:9	300:24, 303:23	81:3, 106:11	83:8, 90:4
varying 204:6	281:11, 324:22	violation 107:9	106:12, 119:14	100:14, 114:23
204:7	324:24	303:25	119:18, 147:8	115:4, 115:7
vast 93:6	vicinity 201:7	violations	168:19, 168:24	116:8, 131:3
106:9, 210:5	209:13	104:9, 247:20	169:1, 169:1	137:19, 138:19
286:6	video 1:12	272:1	169:6, 169:12	140:16, 141:25
vegetation	26:9, 27:14	virtual 22:13	202:2, 204:6	144:18, 144:24
202:4, 244:21	72:21, 100:11	27:15, 29:25	204:8, 204:8	145:5, 159:23
304:21	100:12, 133:25	113:9	204:15, 205:14	166:19, 174:24
vehicle 46:15	139:10, 150:18	virtually 1:11	207:2, 207:12	194:15, 199:18
vehicles 251:4	291:10, 291:12	visibility	207:14, 207:18	200:17, 211:25
251:4, 251:5	view 83:22	244:21	209:11, 210:7	272:15, 276:13
Vehicular	85:25, 273:25	visible 221:7	211:10, 248:20	280:12, 288:22
208:25	320:19, 322:15	221:13, 294:7	249:14, 262:13	292:16
vented 58:4	viewed 112:6	visit 220:7	276:25, 277:23	wanted 25:16
venting 68:3	viewing 264:18	visitation	277:25, 285:22	40:8, 42:4
216:20, 217:3	Villa 39:9	220:5	voice 265:19	131:4, 143:22
verbal 92:8	71:11, 71:25	visited 147:9	290:17, 291:10	153:24, 156:11
Verde 203:3	Villa's 39:13	visitors 202:10	291:11	198:4, 204:21
203:6	Vimont 4:16	202:13, 202:18	voicing 151:15	205:1, 220:1
verification	8:6, 9:9, 20:9	219:2, 221:5	volatile 12:21	253:17, 290:6
195:14	72:18, 72:18	221:9, 223:10	56:15, 73:5	330:9
verified 45:19	72:20, 72:21	223:16, 223:17	80:6, 98:23	wanting 132:5
verify 167:12	72:22, 73:12	visual 15:7	98:24, 106:1	271:20
189:8	159:18, 170:24	115:23	126:14, 168:18	wants 140:20
version 13:2	174:4, 174:9	vitae 199:2	201:1, 201:1	warm 205:25
18:24, 36:3	174:16, 174:18	vital 110:20	201:3, 204:3	warmer 216:7
45:12, 130:3	174:19, 175:1	VOC 11:20, 14:9	211:9, 213:14	warmest 188:7
157:8, 157:20	180:22, 185:4	14:13, 15:11	volatility	warming 54:7
157:21, 158:3	185:8, 190:22	18:4, 19:17	126:3	60:18, 63:8
235:2, 235:16	198:1, 198:5	63:12, 63:20	volume 14:5	63:11, 153:20
254:25	198:7, 198:12	64:7, 88:12	208:17, 243:6	warn 106:21
versus 216:7	198:14, 198:16	88:14, 88:20	265:6, 265:8	warrant 121:12
276:15, 277:23	199:8, 199:13	88:25, 89:8	voluminous 48:4	warranted
294:3	199:17, 199:25	106:17, 117:6	voluntary 46:9	106:20
vertically	200:6, 200:13	117:23, 117:25	249:13	waste 44:20
101:20	211:20, 212:10	118:1, 119:21	volunteering	79:18, 79:23
vessel 59:23	213:8, 213:10	119:24, 121:17	99:22	96:14, 148:1
59:24, 82:5	213:12, 214:14	122:11, 150:16	vote 153:4	231:25, 234:1
vessels 62:20	214:15, 215:25	151:5, 151:18	voter 70:18	284:23, 285:10
69:7, 82:11	216:3, 216:4	169:4, 169:10	Voters 53:21	285:18, 285:24
92:6, 92:9	217:13, 218:13	201:13, 202:9	Votes 3:11	waste-free
103:8, 127:7	218:15, 218:17	204:5, 204:22		233:5
128:19, 129:9	219:1, 219:19	205:3, 206:13	W	wasted 148:4
vetting 87:9	220:3, 220:9	206:16, 206:25		watching 60:20
viability 85:13	220:17, 220:22	210:1, 210:16	W-H-I-S-O-N-...	138:20, 154:10
vibrant 109:6	221:6, 221:25	211:15, 232:5	135:9	water 7:2
vice 2:6, 21:14	222:16, 222:22	232:8, 232:10	W.D 16:22	93:21, 95:19
67:17, 79:3	223:13, 224:2	233:25, 248:12	wait 160:13	95:19, 95:21
Vice-Chair	224:3, 224:12	273:10, 275:22	174:19, 174:19	95:22, 95:23
156:20, 157:16	224:14, 224:23	276:4, 276:21	waiting 78:4	95:25, 116:4

123:9, 124:7	319:13	west 15:4	266:19	71:7, 72:6
124:9, 124:10	weakening 72:4	43:15, 74:12	wisdom 295:6	87:16, 89:11
124:16, 124:16	web 23:5	202:21, 204:23	wish 88:2	99:14, 100:23
124:23, 124:24	283:23	220:23, 267:4	196:11, 282:19	101:3, 110:4
125:2, 125:2	Webex 1:12	327:13, 327:13	withdrawing	111:24, 112:4
125:5, 125:6	25:19, 25:19	WESTAR-WRAP	163:21	112:8, 112:10
125:11, 125:13	97:22	15:10	withdrawn 164:4	112:19, 114:12
125:14, 125:14	webinar 11:9	western 3:14	164:8, 165:23	127:20, 127:21
125:15, 125:24	11:10, 199:20	29:6, 48:5	Witherspoon	128:14, 128:15
126:1, 126:1	webpage 22:18	53:14, 183:16	7:20, 8:15	131:10, 155:24
126:3, 126:4	23:3, 24:25	204:1, 250:14	32:6, 32:7	156:4, 156:7
126:6, 126:9	website 48:6	wet 122:11	32:9, 34:1	156:15, 158:14
126:9, 126:21	49:14, 179:4	Wewatta 6:21	129:17, 129:20	158:19, 159:1
127:2, 127:8	179:24, 189:10	whatsoever	129:21, 129:23	159:6, 160:19
128:22, 129:10	234:24	101:2, 275:7	131:2, 172:7	160:22, 160:22
137:17, 137:22	Wednesday	332:17	182:14, 192:12	166:3, 213:20
144:2, 144:7	328:22, 328:25	Wheat 5:4	218:6, 218:7	263:24, 264:1
144:7, 144:10	week 39:20	Whisonant 8:17	218:9, 237:8	328:20
144:12, 144:14	39:21, 45:12	131:22, 134:3	237:9, 261:4	women 147:9
144:16, 144:16	120:8, 121:19	134:21, 134:23	279:20, 279:21	147:18
144:17, 144:17	148:13, 151:13	134:24, 135:4	324:11	wonderful
144:22	weekend 157:13	135:7, 135:8	witherspoon_...	156:22
wave 151:22	weekly 96:19	135:12, 135:15	7:24	wondering 33:16
151:22	98:5, 180:4	135:16, 136:12	witness 9:8	35:12, 36:20
waving 21:21	189:5, 189:9	Whit 6:8, 31:11	24:7, 25:8	157:4, 196:22
22:3	weeks 22:24	109:21	27:25, 28:12	211:22, 211:24
way 33:23	25:11, 42:21	whit.swift@b...	58:5, 63:22	218:22, 220:14
34:24, 37:13	113:7, 114:25	6:12	64:3, 74:1	220:24, 221:18
40:8, 41:24	119:7, 122:23	Whitman 167:19	75:20, 81:8	224:21, 254:4
52:5, 54:14	130:25, 196:14	wide 79:12	83:18, 88:10	258:2, 258:10
62:11, 68:20	225:1	widely 298:12	101:12, 108:2	291:14, 296:11
85:22, 85:23	weighing 289:24	303:5, 305:25	123:25, 124:2	word 161:13
110:24, 129:14	weight 64:4	widespread	130:6, 147:15	221:19, 272:14
130:17, 134:11	120:13, 288:5	48:16	156:5, 159:17	words 25:10
138:18, 138:18	289:20, 304:1	wife 57:19	159:21, 165:24	97:18, 99:5
141:25, 144:11	welcome 183:22	wild 74:11	170:12, 170:18	322:2, 322:11
154:24, 157:5	184:16, 195:1	74:11	172:19, 174:13	work 28:16
157:5, 158:1	welfare 53:4	WildEarth 5:2	180:11, 182:17	43:13, 48:4
161:24, 174:7	244:20	5:3, 5:7, 30:3	185:7, 185:10	49:4, 54:12
200:7, 203:15	well-being	30:7, 73:13	190:12, 191:25	69:13, 71:16
207:7, 227:8	78:19	73:21, 74:9	192:15, 195:3	71:23, 73:10
238:4, 243:12	well-known	171:5	214:4, 214:6	80:22, 82:24
294:19, 294:22	47:12	wilderness	239:8, 253:7	90:15, 91:21
296:6, 302:20	wellhead 77:9	201:18	256:10, 261:8	91:23, 91:24
ways 22:5	108:10	wildfires 63:7	273:24, 274:6	95:4, 108:19
51:19, 51:23	wells 13:7	wildlife 74:11	278:8, 282:2	115:6, 115:8
54:24, 117:1	15:22, 15:24	WILKINS 6:8	311:10, 314:16	140:25, 148:12
123:13, 124:5	17:17, 51:11	WILLIAM 2:7	315:21, 327:18	151:19, 156:16
216:2, 233:23	57:11, 58:3	willing 50:23	328:5, 328:6	167:3, 170:2
304:23	65:17, 65:19	Wilson 131:22	328:6, 328:20	170:6, 170:7
we've 45:9	65:23, 66:25	134:2, 134:6	329:1, 330:7	170:8, 194:24
85:1, 85:15	70:14, 80:25	134:8, 134:9	witnesses 8:21	244:9, 255:6
89:13, 108:18	81:1, 81:11	134:16	9:1, 9:12	266:16, 266:18
119:8, 124:2	82:15, 125:12	wind 140:24	9:22, 24:2	285:17, 291:17
128:7, 130:22	275:21, 275:23	141:1, 141:21	26:9, 28:14	292:6, 293:16
144:21, 147:2	275:24, 275:25	window 199:18	35:21, 37:2	325:8
147:5, 147:6	292:21	windy 141:2	37:19, 37:21	workability
155:4, 155:7	wellyard 183:18	141:3	42:20, 43:12	86:13, 91:10
164:13, 165:13	went 147:16	winter 141:10	43:22, 44:8	workable 52:23
203:10, 204:14	225:13, 319:15	141:11	45:14, 46:21	63:1, 108:22
227:24, 274:15	wepage 13:10	Wisconsin	50:22, 60:11	108:25, 122:5

Volume 1
9/20/2021

EIB Ozone Hearing

worked 25:24 44:1, 44:3 44:9, 92:3 98:20, 108:15 140:1, 147:5 167:5, 176:3 176:15, 186:3 198:19, 229:23 230:15, 240:9 241:1, 285:13 workers 86:5 244:8 working 27:21 67:21, 75:17 85:3, 98:21 144:1, 153:9 174:7, 202:12 262:21, 292:20 works 49:2 85:22, 146:21 Workshop 17:6 world 43:19 142:10 worldwide 130:10, 141:5 worse 74:8 78:5 worst 153:18 worthwhile 295:15 WOZNIAC 7:15 wrack 74:25 wrap 25:8 142:13 wrapping 302:22 WRF 11:11 writer 230:18 writing 23:20 27:7, 283:22 311:17 written 10:8 10:14, 11:2 11:22, 12:2 12:4, 18:7 18:12, 18:22 19:18, 19:22 19:24, 20:6 20:10, 23:20 23:22, 23:24 127:22, 128:2 167:25, 168:3 168:6, 170:8 177:1, 177:4 177:7, 177:10 186:19, 186:22 186:25, 187:3 196:17, 230:25 231:4, 231:7 241:8, 241:11 241:13, 241:16 241:19, 267:5	267:9, 267:12 267:13, 269:20 269:25, 270:5 270:8, 270:12 270:13, 295:24 311:11 wrong 157:16 229:18, 330:13 330:14 wrongs 154:7 www.env.nm 10:5 Wyoming 12:23 Y yeah 157:18 159:7, 161:12 163:3, 178:9 179:1, 179:13 183:15, 196:15 196:20, 200:13 220:24, 222:10 222:18, 222:18 224:9, 224:13 227:3, 228:13 228:24, 254:11 274:19, 298:24 299:20, 300:9 307:7, 325:23 329:15, 330:12 year 11:17 46:19, 65:24 76:3, 77:19 77:19, 81:3 92:2, 92:12 95:20, 103:13 104:1, 117:12 124:11, 141:6 141:11, 150:12 188:7, 190:8 193:18, 193:19 193:21, 193:25 225:17, 225:19 238:5, 251:2 285:25, 301:23 302:19, 306:16 312:22 year's 193:24 years 42:11 43:15, 44:2 44:2, 44:6 44:13, 48:17 54:12, 67:3 67:20, 74:22 77:18, 93:1 130:7, 130:9 130:23, 133:6 139:25, 141:10 143:21, 144:1 147:1, 150:3 150:19, 167:6	176:4, 176:16 186:5, 187:25 193:13, 193:16 194:8, 203:9 203:13, 203:16 209:3, 219:5 219:8, 220:6 221:23, 222:12 229:24, 230:16 234:14, 240:10 241:2, 245:25 251:25, 251:25 266:20, 267:2 285:14, 291:16 294:5 Yep 199:13 yesterday 39:8 39:10, 271:1 274:11 yield 113:9 124:1, 128:12 138:22 yielded 233:8 York 50:7 you-all 137:8 138:6, 138:20 young 147:12 150:6, 153:8 Z zero 18:19 58:9, 81:20 zero-emission 251:4 ZEV 251:5 zones 148:23 ZZZZ 13:17 0 0.070 187:18 187:23, 189:15 0.206 117:25 09/20/2021 331:4 1 1 8:16, 10:8 14:5, 17:16 18:22, 27:18 88:13, 90:20 90:23, 117:24 122:2, 131:23 154:23, 161:10 161:20, 161:22 161:25, 161:25 162:5, 162:8 162:12, 162:23 162:24, 162:25	164:8, 164:9 166:22, 169:10 169:10, 169:11 169:11, 196:8 208:17, 208:17 208:24, 209:2 241:12, 295:12 1.5 87:17 87:17, 88:4 1.8 208:25 1/2 208:24 1:00 23:11 131:18, 131:24 132:14 10 10:20, 19:12 103:24, 104:1 161:9, 205:16 242:14, 329:4 10:46 84:8 100 18:4 208:19, 265:8 1000 2:23, 6:15 55:20, 57:2 66:17, 83:5 84:23, 91:8 1001-5.5 15:17 1001-8 15:17 1001-9 15:17 101 8:10, 18:5 102 18:7 103 18:8 104 1:21, 18:9 105 18:11 106 18:12 250:20 107 8:11, 18:14 107(d 307:14 108 18:15 244:24 108,000 59:2 109 8:12, 18:17 162:2 10s 205:15 11 10:22, 15:17 19:14, 84:5 122:8, 162:1 11:00 84:8 110 18:19 105:13, 161:9 161:21, 162:7 162:10, 162:10 162:14, 162:19 164:9, 257:1 311:12, 312:14 312:17 110(a 312:6 1100 7:16 111 6:9, 123:22 162:2 1-110 164:11 1110.2 13:13	1117 4:7 112 91:17 127:6, 128:23 129:2, 129:7 113 90:1, 122:2 128:21 114 8:13 1144 7:6 116 55:23 64:15 118,000 59:1 1190 2:18 12 10:23, 19:15 20:18, 188:8 210:6, 268:10 270:16, 270:19 270:21, 297:24 308:10 12/31/2021 332:22 12:11 131:24 120 127:6 128:18, 162:7 121 2:23, 127:7 129:4 122 57:11 59:16 123 8:14, 60:7 92:7, 127:8 128:18, 129:9 162:2 1-23 164:12 1239 3:9 125 7:11 126 127:9 128:22, 129:9 127 58:6 129 8:15 13 11:2, 19:3 19:17, 168:4 241:2 135 8:17 137 8:17 139 8:18 14 11:3, 14:4 15:8, 19:18 167:23, 178:3 179:2, 305:5 308:10 14,300 66:21 1405 5:12 143 8:18 146 8:19 149 8:19 15 11:4, 16:2 19:20, 25:3 81:3, 81:12 150 66:21 1508 2:13 152 8:20 155 305:2
--	---	--	--	--

Volume 1
9/20/2021

EIB Ozone Hearing

1555 3:23 157 305:5 305:20 15-minute 227:25 16 11:5, 19:21 64:17, 112:1 229:24, 230:16 16.6 115:20 16.7 124:24 160 290:11 1601 6:21 164 10:8, 10:9 10:11, 10:13 10:14, 10:15 10:16, 10:18 10:19, 10:21 10:22, 10:24 11:2, 11:3 11:4, 11:6 11:7, 11:9 11:10, 11:12 11:13, 11:14 11:16, 11:17 11:19, 11:21 11:22, 11:23 11:25, 12:2 12:3, 12:5 12:6, 12:8 12:11, 12:14 12:17, 12:19 12:22, 12:25 13:2, 13:4 13:5, 13:7 13:9, 13:12 13:13, 13:16 13:17, 13:19 13:20, 13:22 13:24, 14:4 14:7, 14:8 14:10, 14:11 14:13, 14:16 14:19, 14:22 14:24, 15:2 15:5, 15:6 15:8, 15:10 15:12, 15:14 15:18, 15:20 15:22, 15:24 16:2, 16:5 16:7, 16:9 16:12, 16:14 16:16, 16:17 16:19, 16:20 16:22, 17:2 17:4, 17:6 17:8, 17:11 17:13, 17:16 17:17, 17:19 17:20, 17:23 17:25, 18:3	18:4, 18:6 18:7, 18:8 18:10, 18:11 18:13, 18:14 18:16, 18:18 18:20, 18:23 18:24, 19:2 19:4, 19:5 19:7, 19:8 19:10, 19:11 19:13, 19:14 19:16, 19:17 19:19, 19:20 19:21, 19:22 19:23, 19:25 20:2, 20:5 20:7 166 8:23 16th 86:15 90:12, 90:19 96:2, 121:24 122:4, 122:9 122:13, 127:25 130:3, 235:16 17 11:7, 13:9 19:22, 176:16 208:18, 219:6 240:10 172 8:24 311:13, 313:7 313:10, 313:15 175 9:3 18 11:8, 12:11 12:14, 19:23 67:20, 194:7 210:17, 224:10 18,000 61:17 18.8 124:22 180 115:19 181 9:3 182 9:4 185 9:6 19 10:19, 11:10 19:24, 194:7 224:10, 225:12 225:13, 225:14 234:3 19,000 67:1 191 9:6 192 9:7 1970s 102:12 103:17 1974 103:5 1976 104:12 198 9:10 1982 291:17 1991 198:19 1993 13:24 1993)(Excerpt 18:18 1997 18:6, 20:5	1997)("April 20:5 1999 16:16 19th 232:25 1st 22:25 23:24, 295:13 2 2 3:15, 10:9 12:24, 18:24 88:8, 90:20 90:23, 122:2 162:22, 163:1 163:10, 169:12 196:8, 241:6 2,700 66:25 2.2 208:25 2.5 61:16 178:19, 242:15 242:16 2:18-CV-0052... 16:22 20 10:24, 11:11 20:2, 169:4 224:10, 225:12 225:13, 225:14 227:25, 260:13 332:8 20.1.1 21:9 20.2.50 1:4 10:23, 13:2 18:24, 20:13 20.2.50.2 317:4 2000 13:16 67:14, 301:19 2000s 313:20 2005 16:9 284:25 2006 14:22 15:24, 16:5 16:12, 17:13 18:3 2008 14:15 17:6, 57:19 243:23 2009 102:12 201 5:8 2010 14:24 2011 12:11 13:7, 15:22 17:8 2012 13:9 2014 11:5 11:11, 11:14 15:17, 15:17 17:11, 273:1 273:3, 273:13 2014)("Centr... 15:5 2014)("EPA	17:11 2014.03 14:18 2014-2016 15:9 2014v2 11:15 2015 12:14 17:22, 17:23 187:20, 227:4 227:5, 242:18 243:22, 244:24 312:14 2015.("NSPS 12:11 2016 14:16 15:14, 17:25 18:20, 19:13 218:21, 219:6 301:19 2016)("EPA 12:8 2016)("ICF 15:20 2016)("Wyoming 12:24 2017 57:22 140:3, 203:24 203:24, 204:17 205:21, 206:7 206:9, 208:9 208:11, 208:14 209:1, 209:6 211:6, 216:25 2018 13:22 16:22, 18:16 194:12, 299:13 301:19 2019 10:22 14:4, 15:8 17:4, 44:15 121:3, 121:10 194:12, 203:24 203:24, 206:8 207:2, 208:9 208:12, 208:17 209:1, 209:4 211:6, 216:25 223:8, 225:17 225:24, 232:21 234:3, 285:6 2019)("2014 15:10 2019-003 231:20 284:22 2019-03 10:16 2019-3 44:16 2020 10:11 10:18, 10:19 10:24, 11:9 11:10, 11:25 17:17, 124:22 194:7, 194:12 219:10, 225:23 225:25, 232:25	234:21, 251:12 285:8, 299:13 301:19 2020)("2020 17:16 2021 1:10 10:13, 11:16 11:19, 11:21 13:2, 18:24 19:3, 20:11 36:22, 74:24 86:15, 119:10 124:23, 224:22 225:24, 226:3 235:4, 332:8 2022 218:22 312:24 2023 11:11 11:13 2027 81:24 2028 11:14 11:15, 11:16 11:17, 11:18 11:20, 273:7 273:13, 275:10 276:6, 276:11 280:13, 280:18 281:4 2030 284:25 20th 1:9 234:21, 283:18 20-year 80:17 21 11:13, 13:4 16:5, 16:12 20:3, 56:3 130:3, 225:15 21.1 16:23 212 20:9, 20:11 20:12, 20:13 20:15 21-27 18:21 19:1, 21:5 283:18, 332:3 21-27(R 1:2 213 9:11 2131 3:18 216 7:16 218 9:11 22 11:14, 15:7 17:23, 20:6 133:6, 241:14 222 7:11 229 9:14 23 11:15, 12:11 17:6, 115:15 130:9, 161:22 162:22, 162:23 163:1, 163:11 164:10, 260:12 2300 6:10 2307 5:19
--	--	--	---	---

Volume 1
9/20/2021

EIB Ozone Hearing

237 9:15 239 9:17 24 11:17, 16:22 18:6 245 3:5 25 11:18, 16:9 44:2, 103:12 141:23, 251:24 250,000 292:4 292:6 25287 4:13 4:18 256 9:17 26 11:20 187:20 262 9:18 263 9:18 266 9:24 269 20:17 27 11:22, 177:5 233:12 270 20:18 28 11:23, 13:2 14:22, 152:5 176:24, 290:7 295:12 280 9:24 284 10:2 29 1:20, 11:24 14:24, 23:10 132:14, 332:7 332:22 291 10:2 293 10:3 297 9:19 2-butyl 207:18 208:4	199:12 30,000 59:2 301 5:7 303)407-4455 7:17 303)442-0610 3:24 303)454-2514 6:23 303)501-5763 5:5 303)572-6500 7:7 303)969-2808 4:14, 4:19 30-minute 131:10 30th 193:25 31 12:3, 162:1 186:17 3150 1:21 316 9:19 32 12:4, 161:9 323 9:20 324 9:20 325 5:18 325-F-19-001 17:4 327 9:21 33 12:6, 57:12 162:1 3300 7:6 34 12:7, 44:6 35 12:9 35,000 57:1 66:24 350 3:12, 53:24 53:25 36 12:12 37 12:15 377,000 125:13 3798 5:4 38 12:18 39 12:20	12:23, 13:3 13:17, 13:18 15:14, 16:13 43:15, 117:14 143:21 408 125:11 409 3:15 40th 3:4 41 8:2, 13:2 42 13:3, 234:3 43 13:5 44 13:6 45 13:8, 84:3 266:20, 284:25 297:23 453/R-93-034 18:18 454/R-18-009 18:16 45-day 234:21 46 13:10 47 13:13, 34:13 34:15, 35:6 35:13, 36:23 37:11, 37:24 164:21 48 13:14 480)505-3900 3:6 49 13:17 49i 179:14 179:15 4A 292:11 4th 312:24	7:12 505)277-2146 4:8 505)383-2064 2:24 505)490-4054 2:14 505)629-0732 3:16 505)660-4305 287:21 505)819-9058 5:14 505)848-1800 6:16 505)982-3873 5:20 505)982-9523 3:10 505)988-9126 5:9 5080 3:4 51 13:20 512)472-7800 6:11 52 13:21 53 8:3, 13:23 286:4 54 14:2 55 14:5, 125:13 56 14:8 57 14:9 575)343-2782 3:19 58 14:11 59 14:12, 24:2	67 15:7 68 15:9 69 8:5, 15:11 6th 36:22 235:4
				7
				7 10:16, 12:20 15:17, 18:24 19:8, 37:19 37:20, 162:1 239:4, 239:22 7,000 121:4 121:12 70 15:13 154:16, 204:15 243:21, 243:24 71 15:15, 162:1 713)229-1421 6:5 72 8:6, 15:19 161:9 73 8:7, 15:21 103:23, 162:1 219:9 74 15:23 74.2.5 119:9 74-1-2 78:15 74-2-2 248:6 74-2-5 248:11 299:6 75 16:2, 243:23 750 79:14 76 16:3 77 16:6 77002 6:4 78 16:8, 139:25 78701 6:10 79 8:8, 16:10
3				
3 7:14, 10:10 14:6, 15:17 19:2, 87:18 88:14, 90:24 122:2, 123:10 129:3, 208:24 229:13, 266:9 3,595 115:14 3,600 66:15 3,750 121:7 3.2 87:15 3.3 14:6 3.8 208:25 3:20 228:2 3:35 228:1 3:36 228:2 30 12:2, 17:25 44:2, 66:10 97:9, 130:7 166:14, 175:17 185:19, 186:23	4 10:12, 19:3 161:25, 162:1 208:25, 249:25 253:13, 253:18 254:2, 254:4 258:3, 258:11 309:20, 310:2 310:14, 311:3 315:19, 319:7 319:13, 327:23 4,500 67:2 4:57 282:13 4:59 283:15 40 12:9, 12:13	5 5:13, 10:1 10:14, 15:17 15:17, 19:5 23:11, 27:19 111:8, 130:12 161:9, 205:15 205:16, 230:20 282:18, 283:17 295:12, 328:24 5,800 67:2 5.2 13:5 5:00 25:7 154:23, 154:24 282:13, 282:20 5:05 282:23 283:14, 283:15 50 13:18, 43:20 44:22, 76:11 93:8, 123:23 231:1, 250:23 500 6:15, 91:8 505 1:22, 2:20 17:2, 27:11 505)216-1430	6 10:15, 10:18 12:24, 15:17 19:6, 20:17 162:1, 231:2 268:24, 268:25 269:7, 269:9 269:11, 328:24 6:18 331:4 60 12:9, 12:13 13:3, 13:19 14:14, 15:14 130:23 61 8:4, 14:17 62 14:20, 18:6 63 13:17, 14:23 16:13 64 15:2, 162:1 64262 17:21 65 15:3, 67:2 161:9, 299:13 66 15:6, 162:1 660-4305 27:11	8
				8 5:4, 10:17 19:9, 48:9 84:4, 88:6 88:7, 119:10 161:9, 329:4 8.8 115:21 80 16:13, 17:21 85:3 80033 5:4 80202 6:22, 7:7 7:17 80225-0287 4:14 4:18 80304 3:23 806-1202 1:22 81 16:15, 17:24 82 16:17 827-2985 2:20

Volume 1
9/20/2021

EIB Ozone Hearing

83 16:18, 56:4 8314 18:6 84 8:9, 16:20 85 16:21 125:15 85024 3:5 858)694-6609 7:23 86 16:23, 80:16 86517 17:24 87 17:2 87102 2:24 6:15 87106 4:7 87110 1:22 87501 3:9, 3:15 5:8, 7:12 87504-1508 2:13 87504-2307 5:19 87505 2:19 5:13 88 17:3 88001 3:19 89 17:5 894 66:16 8-hour 187:22 188:13, 188:18 190:5, 190:7 218:21, 219:14 246:9	302:8, 308:8 308:11, 308:25 314:9, 317:24 318:2, 318:2 318:6, 319:18 320:4, 320:12 320:22, 320:25 321:17 96 17:20 97 17:21 98 8:9, 17:24 99 18:2			
9				
9 10:19, 19:11 23:11, 154:23 161:9, 295:12 328:15, 329:4 9:00 1:12 330:24 90 17:7, 84:25 900 6:22 904 17:8 91 17:9, 162:2 910 6:4 92 17:12, 56:6 161:9 92123-5398 7:23 93 17:14, 162:2 162:19 9330 7:22 94 17:17 95 17:18, 41:20 46:25, 47:15 77:17, 89:16 89:22, 102:14 104:22, 105:3 119:13, 178:13 248:16, 249:9 271:23, 299:14 299:25, 300:4 301:24, 302:1				